

4 REVISIONS AND CORRECTIONS TO THE DRAFT EIR

4.1 INTRODUCTION

This chapter includes revisions to the text in the Draft EIR following its publication and public review. The changes are presented in the order in which they appear in the original Draft EIR and are identified by Draft EIR page number. The changes shown in this chapter are the result of comments received on the Draft EIR that resulted in text modifications or corrections that occurred after circulation of the Draft EIR for public review and comments. The proposed text modifications do not affect the conclusions in the Draft EIR. Revisions are shown as excerpts from the Draft EIR text, with strikethrough (~~strikethrough~~) text for deletions and underline (underline) text for additions.

4.2 REVISIONS AND CORRECTIONS TO DRAFT EIS

REVISIONS TO THE EXECUTIVE SUMMARY CHAPTER

Page ES-2 is revised as shown below:

- ▶ **Objective 11:** Comply with the Natomas Basin Habitat Conservation Plan, Sacramento Area Flood Control Agency flood control plans, RD 1000 drainage requirements and standards, and other regional resource conservation and safety plans.

REVISIONS TO CHAPTER 2, PROJECT DESCRIPTION

Page 2-1, last paragraph is revised as shown below:

Existing land use around the site is primarily agriculture in unincorporated areas of Sutter, Placer, Sacramento, and Yolo Counties. Sacramento International Airport and the proposed Metro Air Park (an industrial and business park) are located approximately 2 miles southwest of the project site. The Union Pacific Railroad operates a railroad line which runs north-south near the eastern property boundary, on the east side of Natomas Road. Nearby planned or approved developments include the Greenbriar Specific Plan project to the southwest and the Placer Vineyards Specific Plan and Rio Linda/Elverta Specific Plan projects to the east.

Page 2-7 is revised as shown below:

OTHER AGENCIES

On- and off-site infrastructure improvements would require additional permits and approvals from and agreements with the following entities:

- ▶ Placer County,
- ▶ Sacramento County Regional Sanitation District,
- ▶ Reclamation District 1000,
- ▶ Natomas Central Mutual Water Company,
- ▶ Central Valley Regional Water Quality Control Board (RWQCB),
- ▶ Pleasant Grove Elementary School District,
- ▶ East Nicolaus High School District
- ▶ Sutter County LAFCO, and
- ▶ Sacramento County LAFCO.

Page 2-20, fifth paragraph is revised as shown below:

As discussed in detail in Section 3.7, “Hydrology and Water Quality,” the capacity of the Pleasant Grove Canal, located east-northeast of the project site, is exceeded during a 100-year flow event. The overflow enters the Natomas Basin at the Sankey Gap, a low point in the levee where Sankey Road crosses the Canal, which is the RD 1000 eastern boundary. The Sankey Gap flow travels west along Sankey Road, and comprises the 100-year floodplain north of Riego Road and east of SR 99/70. ~~The cause of the Sankey Gap overflow is a lack of conveyance capacity in the Natomas Cross Canal that would allow runoff from Pleasant Grove Creek and adjacent watersheds to enter the Sacramento River. Additionally, during high stages in the Sacramento River, water backs up in the Cross Canal and ponds in the Pleasant Grove Canal and adjacent areas, and these backwater conditions result in overflow through the Sankey Gap.~~ The proposed Drainage Master Plan contains three different alternatives (summarized briefly below), all of which were designed to add detention and pumping facilities to provide for both displaced floodplain storage (from the Sankey Gap).

Page 2-39, Objective 11, is revised as shown below:

Electricity

Pacific Gas and Electric Company (PG&E) is the local purveyor of electricity on the project site and in the vicinity. PG&E has a major 115-kilovolt (kV) overhead transmission line abutting the eastern boundary of the project site. On the project site, PG&E serves the few existing scattered homes and businesses, as well as the various existing agricultural customers. For the most part, the facilities on the project site are not suitable to support the proposed development.

In order to accommodate the development of the proposed project, PG&E would upgrade the existing Catlett Substation located on Fifield Road at Natomas Road. Substation upgrades may include new or additional transformers and other equipment, which would be constructed within the footprint of the existing substation. PG&E would also need to upgrade the existing overhead distribution pole lines from Catlett Substation south onto the project site. Distribution pole line upgrades may include new electrical conductor, new (potentially taller) poles, and new equipment installed on the poles. Because PG&E’s electrical system is interconnected and regional in nature, improvements required to serve the new load for the proposed project may be required outside of the project site’s boundaries. The Catlett Substation upgrades and transmission line reconductoring are expected to have less than significant environmental impacts based on (1) prior disturbance and lack of habitat or cultural resources within the existing substation, (2) the low level of short-term construction-related air and noise that would be generated, and (3) the fact that the line reconductoring improvements would be constructed overhead.

PG&E proposes to construct a primary community substation along the eastern border of the project site, just north of Riego Road. The substation would connect to the existing 115-kv transmission line abutting the eastern boundary of the site. A drop from the existing overhead line to the new substation would be constructed. The substation site would require an area approximately 350 feet by 400 feet in size. All development within the project site has been evaluated at a programmatic level in the DEIR. Impacts and mitigation measures for project-related development (including construction of necessary on-site infrastructure) are discussed in Sections 3.1 through 3.17 of the DEIR.

Page 2-41, the legend of Exhibit 2-11 is revised as shown below:

Existing gas transmission facilities

PG&E natural gas ~~distribution~~ transmission point of connection

Page 2-42 is revised as shown below:

PG&E is the local purveyor of natural gas in the vicinity of the project site, and PG&E would extend lines and construct facilities to serve the site. The nearest gas service is approximately 2 miles southeast of the project site, in the northern portion of the community of Rio Linda. PG&E's facility in this location, however, does not have the capacity to serve the project site. PG&E proposes to extend natural gas service west along Riego Road (Base Line Road in Placer County) from an existing transmission main at Fiddymont Road in Roseville to serve the project site. PG&E's preferred method of service provision is from the proposed Line 407 East pipeline. However, in the event that the larger Line 406/407 project is delayed, natural gas service could be provided to the initial project phases through a distribution line extension along Riego Road through the project site from the same location in Roseville. In the absence of the Line 406/407 project, extension of a transmission line along the same Riego Road alignment would be required to serve project buildout. Please refer to Exhibit 2-11 for an illustration of the Line 406/407 alignment, as well as the alignment for the potential distribution or transmission line extension from Roseville. The proposed alignment of this new transmission is along the north side of Riego Road through the entire project site. The applicant has indicated that PG&E intends to extend natural gas service onto the project site. Two distribution regulator stations located within the project boundaries would feed through an underground distribution system. As part of the project approval process, the project applicant would coordinate with and meet the requirements of PG&E regarding the extension and locations of on-site infrastructure.

~~Alternatively, if timing allows, PG&E proposes to serve this development from the new Line 407 East pipeline, which is proposed as part of PG&E's Line 406/407 Project. A notice of preparation (State Clearinghouse number 2007062091) for the Line 406/407 project was prepared by the California State Lands Commission (the lead agency under CEQA) and circulated for public review in June 2007. It is anticipated that a DEIR for the project will be released in late 2008/Spring 2009. The pipeline Line 406/407 project is currently scheduled to begin construction of Line 406 in 2009 and Line 407 East in 2010 anticipated to be constructed in 2009 and 2010.~~

Page 2-43 is revised as shown below:

SOLID WASTE MANAGEMENT

Solid waste management for Sutter County, including the project site, is conducted under a joint powers agreement with Yuba County and the Cities of Live Oak, Marysville, Wheatland, and Yuba City ~~and the City of Gridley~~ in Butte County. The agreement jointly addresses the provision of waste management services, including the planning for the future provision of waste management services, and forms the Regional Waste Management Authority (previously the Bi-County Authority).

Page 2-44, fourth paragraph is revised as shown below:

The proposed high school would be built on a 53-acre site between two lakeshore community parks in the Traditional Village. The approximately 2,000-student-capacity high school ~~would~~ may provide community use facilities and dual-function school facilities. A joint-use athletic complex and multipurpose building ~~would~~ may be located immediately adjacent to the school's parking area and ~~would~~ may be available for community events. A joint-use community library facility ~~would~~ may be provided at the high school campus. Other joint-use facilities may include an aquatic center, ball fields, and a stadium, as well as tennis and basketball courts. A conceptual plan for the high school is presented in Chapter 8, "Community Facilities," of the Specific Plan.

Page 2-18, Table 2-3 is revised as shown below:

Table 2-3 Infrastructure Service Providers				
Service	Provider			
	Current	Before Incorporation	After Incorporation	
Wet Utilities	Drainage (on-site)	Sutter County	CSA/RD 1000	City/RD 1000
	Drainage (off-site)	RD 1000	RD 1000	RD 1000
	Flood control	SAFCA	SAFCA/ <u>RD1000</u>	SAFCA/ <u>RD1000</u>
	Sewer	No current service	CSA/SRCSD	City/SRCSD
	Water (potable)	No current service	CSA	City
	Water (recycled)	No current service	CSA	City

Page 2-20, last paragraph is revised as shown below:

As discussed in detail in Section 3.7, “Hydrology and Water Quality,” the capacity of the Pleasant Grove Canal, located east-northeast of the project site, is exceeded during a 100-year flow event. The overflow enters the Natomas Basin at the Sankey Gap, a low point in the levee where Sankey Road crosses the Canal, which is the RD 1000 eastern boundary. The Sankey Gap flow travels west along Sankey Road, and comprises the 100-year floodplain north of Riego Road and east of SR 99/70. The cause of the Sankey Gap overflow is a lack of conveyance capacity in the Natomas Cross Canal that would allow runoff from Pleasant Grove Creek and adjacent watersheds to enter the Sacramento River. Additionally, during high stages in the Sacramento River, water backs up in the Cross Canal and ponds in the Pleasant Grove Canal and adjacent areas, and these backwater conditions result in overflow through the Sankey Gap. The proposed Drainage Master Plan contains three different alternatives (summarized briefly below), all of which were designed to add detention and pumping facilities to provide for both displaced floodplain storage (from the Sankey Gap)

Page 2-42 is revised as shown below:

Natural Gas

PG&E is the local purveyor of natural gas in the vicinity of the project site, and PG&E would extend lines and construct facilities to serve the site. The nearest gas service is approximately 2 miles southeast of the project site, in the northern portion of the community of Rio Linda. PG&E’s facility in this location, however, does not have the capacity to serve the project site. PG&E proposes to extend natural gas service to the site from the future new transmission Line 407 East pipeline which is part of PG&E’s Line 406/407 project, to be installed west along Riego Road (Base Line Road in Placer County) from an existing transmission main in Roseville to serve the project site. The proposed alignment of this new transmission is along the north side of Riego Road through the entire project site. The applicant has indicated that PG&E intends to extend natural gas service onto the project site from the proposed transmission main, which will operate at a Maximum Allowable Operating Pressure (MAOP) of 975 psig, through two distribution regulator stations located within the project boundaries and through an underground distribution system which will operate at a MAOP of 60 psig. The gas distribution regulator stations will be constructed within 20 foot by 80 foot easements that have 24-hour all-weather access for maintenance and operations. As part of the project approval process, the project applicant would coordinate with and meet the requirements of PG&E regarding the extension and locations of on-site infrastructure.

Alternatively, if timing allows, PG&E proposes to serve this development from the new Line 407 East pipeline, which is proposed as part of PG&E’s Line 406/407 Project. A notice of preparation (State

Clearinghouse number 2007062091) for the project was prepared by the California State Lands Commission (the lead agency under CEQA) and circulated for public review in June 2007. It is anticipated that a DEIR for the project will be released in late 2008Spring 2009. The pipeline project is currently scheduled to begin construction of Line 406 in 2009 and Line 407 East in 2010 anticipated to be constructed in 2009 and 2010.

Page 2-43, second paragraph is revised as shown below:

Solid waste management for Sutter County, including the project site, is conducted under a joint powers agreement with Yuba County; the cities of Live Oak, Marysville, Wheatland, and Yuba City; ~~and the City of Gridley~~ in Butte County....

REVISIONS TO CHAPTER 3, ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

Page 3.1-18, sixth paragraph is revised as shown below:

The Natomas East Main Drainage Canal runs parallel to the eastern border of the project site and 0.5 mile south of Sankey Road. Natomas Road also runs parallel to the entire length of the eastern border of the project site. The Union Pacific Railroad operates a railroad line which runs north-south near the eastern property boundary, to the east of Natomas Road.

Page 3.1-27 is revised as shown below:

For the proposed project, the Sutter County LAFCO and Sacramento LAFCO would oversee the establishment or revision of boundaries for local municipalities and independent special districts, such as SRCSD. The project site is not currently located in SRCSD's service area. Before SRCSD could serve the proposed project, Sacramento LAFCO would need to conduct proceedings to consider an amendment to the sphere of influence based on consistency with LAFCO guidelines, and ~~either~~ annexation of the territory into SRCSD's service area, ~~or~~ and a wastewater services agreement and operations agreement (which would act as a binding contract between Sutter County and SRCSD, as well as defining facilities and operation).

Page 3.1-28 is revised as shown below:

A Principles of Agreement between Sutter County and SRCSD is expected in late 2008 is under discussion, but no timeline has been agreed to by SRCSD. This agreement would define the general terms through which wastewater service would be provided to the proposed project by SRCSD, summarize the maximum wastewater flow rates generated by the proposed project, identify wastewater conveyance and storage facilities to be constructed by the project applicant(s), and establish fees to be paid to SRCSD for wastewater service. The Principals of Agreement do not commit the County or SRCSD to approval of the project, but they provide for a means for wastewater disposal in the event that the proposed project is approved. Approval of this agreement is required before wastewater flows generated by the proposed project could be conveyed and treated at the SRWTP. In addition, the proposed project would require a wastewater services agreement, which would act as a binding contract between Sutter County and SRCSD, and an operations agreement, which would identify the specific wastewater facilities required, and would define the operational responsibilities and expectations of these facilities, before SRCSD would provide sewer service to the project site.

Page 3.1-29, first complete paragraph, is revised as shown below:

The western and southwestern portion of the project site east of Powerline Road and south of Riego Road would be located in the Overflight Zone and within the 60- and 65-dB CNEL noise contour (see Exhibit 3.1-2). This portion of the project site is designated as Employment-2 (E2) and would provide large sites for large-scale industrial campuses, technological parks, distribution centers and warehousing, and higher intensity industrial manufacturing uses. These land uses are considered compatible uses in the Overflight Zone according to the CLUP. All proposed E2 land uses within the 60- and 65-dB CNEL noise contour are compatible with the CLUP. No residential or school uses would be located within any airport safety zones or in those areas subject to noise levels of 65-dB CNEL or above. The proposed project would require a finding of consistency has been found to be consistent with the Sacramento International Airport CLUP at the Specific Plan level by the ALUC (ALUC, 2009) regarding the Sacramento International Airport CLUP. Because the proposed project would not conflict with the Sacramento International Airport CLUP, this **direct** impact is **less than significant**. **No indirect** impacts would occur. (Refer to Section 3.5, “Noise,” for further discussion of physical noise impacts on the environment related to the Sacramento International Airport CLUP.)

Page 3.3-5 is revised as shown below:

LOS criteria by jurisdiction are summarized below.

<u>Jurisdiction</u>	<u>LOS Criteria</u>
Sutter County	D
Placer County	C
Placer County (Adjacent to Placer Vineyards)	D
Sacramento County	E (<u>LOS D outside Urban Services Boundary</u>)
Caltrans Facilities (SR 99 and I-5)	E

Page 3.3-8 is revised as shown below:

Freeway Facility	Type	a.m. Peak Hour		p.m. Peak Hour	
		Density ¹	LOS ²	Density ¹	LOS ²
1. NB SR 70/99 North of Sankey Road	Mainline	8.5	A	16.3	B
2. NB SR 70/99 between Sankey Road and Riego Road	Mainline	8.4	A	15.8	B
3. NB SR 70/99 between Riego Road and Elverta Road	Mainline	<u>10.1</u>	A	<u>12.2</u>	<u>B</u>
4. NB SR 70/99 between Elverta Road and Elkhorn Boulevard	Mainline	10.9	A	25.1	C
5. NB SR 70/99 at Elkhorn Boulevard slip on-ramp	Merge	13.3	B	27.7	C
6. NB SR 70/99 at Elkhorn Boulevard loop on-ramp	Merge	11.4	B	25.8	C
7. NB SR 70/99 at Elkhorn Boulevard off-ramp	Diverge	16.4	B	39.3	E
8. NB SR 70/99 between I-5 Interchange and Elkhorn Boulevard	Mainline	12.5	B	36.6	E
9. NB I-5 between SR 70/99 and Airport Boulevard	Mainline	27.9	D	22.3	C
10. NB I-5 to NB SR 70/99 off-ramp	Major Diverge	14.1	B	22.1	C
11. NB I-5 between Del Paso Road and SR 70/99 Interchange	Mainline	19.9	C	33.4	D

Table 3.3-3 Freeway Mainline, Merge, Diverge, Weave LOS – Existing Conditions					
Freeway Facility	Type	a.m. Peak Hour		p.m. Peak Hour	
		Density ¹	LOS ²	Density ¹	LOS ²
12. NB I-5 at Del Paso Road on-ramp	Merge	22.4	C	32.8	D
13. SB SR 70/99 North of Sankey Road	Mainline	19.3	C	8.2	A
14. SB SR 70/99 between Sankey Road and Riego Road	Mainline	18.4	C	8.1	A
15. SB SR 70/99 between Riego Road and Elverta Road	Mainline	<u>23.0</u>	<u>C</u>	<u>10.2</u>	A
16. SB SR 70/99 between Elverta Road and Elkhorn Boulevard	Mainline	26.4	D	10.8	A
17. SB SR 70/99 at Elkhorn Boulevard off-ramp	Diverge	31.8	D	14.5	B
18. SB SR 70/99 at Elkhorn Boulevard loop on-ramp	Merge	34.9	D	15.3	B
19. SB SR 70/99 at Elkhorn Boulevard slip on-ramp	Merge	24.9	D	15.0	B
20. SB SR 70/99 between I-5 Interchange and Elkhorn Boulevard	Mainline	36.1	E	13.1	B
21. SB SR 70/99 to NB I-5 off-ramp	Diverge	27.4	C	5.4	A
22. SB SR 70/99 to NB I-5 on-ramp	Merge	22.7	C	18.4	B
23. SB SR 70/99 to SB I-5 on-ramp	Weave	N/A ³	E	N/A ³	C
24. SB I-5 between SR 70/99 Interchange and Del Paso Road					
25. SB I-5 at Del Paso Road off-ramp	Diverge	23.9	C	15.4	B
26. SB I-5 between Airport Boulevard and SR 70/99 Interchange	Mainline	21.4	C	24.3	C
27. SB I-5 to NB SR 70/99 off-ramp	Diverge	14.7	B	17.9	B
28. SB I-5 to NB SR 70/99 on-ramp	Merge	8.4	A	29.0	D

Notes: Shading indicates that the freeway facility operates unacceptably based on the significance criteria.
¹ Density reported in passenger cars per mile per lane.
² Level of Service based on *Highway Capacity Manual* (Transportation Research Board, 2000).
³ Weaving section analyzed using the Leisch Method, LOS not based on density.
Source: Fehr & Peers 2008

Page 3.3-23 is revised as shown below:

Both alternatives include 500 feet of right-of-way reservation and a grade-separated crossing of the Union Pacific Railroad east of the SPSP area to accommodate a four- to six-lane project. The proposed SPSP will accommodate a four- to six-lane project ~~includes the 500-foot right-of-way reservation for~~ Alternative 2 but not for Alternative 1.

Page 3.3-64 is revised as shown below:

Sacramento County Roadways and Intersections

- ▶ Cause the existing or cumulative no project level of service for study locations to deteriorate from LOS E (or better) to LOS F. (Inside the Urban Services Boundary)
- ▶ Cause the existing or cumulative no project level of service for study locations to deteriorate from LOS D (or better) to LOS E or F. (Outside the Urban Services Boundary)
- ▶ Exacerbate the existing or cumulative no project LOS E or F conditions (Outside the Urban Services Boundary) or LOS F conditions (Inside the Urban Services Boundary) for study locations.

Page 3.3-80 is revised as shown below:

IMPACT 3.3-4 Unacceptable Operations on Sacramento County Roadways. *The proposed project would increase daily traffic volumes using Sacramento County roadway segments that do not meet minimum design standards for travel lane width, ~~and~~ shoulder width, and pavement cross-section under existing plus project conditions.*

On-Site and Off-Site Elements

Implementation of the proposed project would increase daily traffic volumes on Powerline Road between the Sacramento County line (southern SPSP plan area boundary) and Elverta Road. Powerline Road has a limited roadway cross-section characterized by narrow travel lanes and no usable shoulders. ~~While~~ The daily traffic volume on Powerline Road ~~does not~~ would exceed Sacramento County's LOS D threshold for acceptable traffic operations for a two-lane rural roadway outside the Urban Services Boundary and ~~it~~ would create a potential hazard for motorists traveling between Sacramento County and the SPSP due to the limited roadway cross-section. This is a **significant** impact:

Mitigation Measure 3.3-4: Participate In Funding Improvements to Sacramento County Roadways.

On-Site and Off-Site Elements

The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 to widen Powerline Road from the Sacramento County line to Elverta Road, to improve the pavement condition of E. Levee Road (Sacramento County Line to Elverta Road), to improve the pavement condition of Sorento Road (Sacramento County Line to Elverta Road) to meet Sacramento County design standards including minimum width travel lanes and usable shoulders.

Page 3.3-113 is revised as shown below:

CUMULATIVE CONDITIONS BEYOND 2035

The cumulative analysis also included one scenario that represents conditions beyond ~~2025~~2035. This scenario is referred to as the super-cumulative scenario and is included for informational purposes only. This scenario includes development outlined for cumulative year 2035 conditions and planned development projects near the Riego Road/Baseline Road and SR 70/99 corridors, including the potential Curry Creek development and the Natomas Joint Vision Area. Other potential development areas located further from these corridors were not included. ~~a forecast of build-out for all planned and proposed residential land in Placer County west of Sierra College Boulevard and~~ Table 33.28 summarizes the following major development projects in west Placer County and northern Sacramento County beyond year 2035 conditions.

Tables 3.3-15 through 3.3-18 are revised as shown below:

Table 3.3-15 Roadway LOS: Existing Plus Phase 1 and Project Conditions													
Roadway Segment	Jurisdiction	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS
1. Sankey Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	200	0.01	C	2R	200	0.01	C	2R	200	0.01	C
2. Sankey Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	1,400	0.07	C	2U	1,800	0.11	C	4E	25,900	0.50	C
3. Sankey Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	1,100	0.05	C	-	-	-	-	-	-	-	-
3a. Sankey Rd. – Pacific Ave. to Road C	Sutter Co.	-	-	-	-	2R	1,600	0.08	C	4E	7,300	0.14	C
3b. Sankey Rd. – Road C to Pleasant Grove Rd. (N)	Sutter Co.	-	-	-	-	2R	1,600	0.08	C	4E	6,200	0.12	C
4. Sankey Rd. – Pleasant Grove Rd. (N) to Locust Rd.	Sutter Co.	2R	1,500	0.07	C	2R	1,500	0.07	C	2R	3,400	0.16	C
5. Riego Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	800	0.04	C	-	-	-	-	4U	-	-	-
5a. Riego Rd. – Power Line Rd. to Road U	Sutter Co.	-	-	-	-	2U	1,500	0.09	C	4U	10,600	0.32	C
5b. Riego Rd. – Road U to Road R	Sutter Co.	-	-	-	-	4U	1,500	0.05	C	4U	23,900	0.73	C
5c. Riego Rd. – Road R to Road S	Sutter Co.	-	-	-	-	6U	6,500	0.13	C	6U	30,500	0.62	C
5d. Riego Rd. – Road S to SR 70/SR 99	Sutter Co.	-	-	-	-	6E	45,100	0.58	C	8E	73,400	0.71	C
6. Riego Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	9,600	0.46	D	-	-	-	-	8E	-	-	-
6a. Riego Rd. – SR 70/SR 99 to Road A	Sutter Co.	-	-	-	-	6E	47,600	0.61	C	8E	69,500	0.67	C
6b. Riego Rd. – Road A to Pacific Ave.	Sutter Co.	-	-	-	-	6E	34,800	0.45	C	8E	58,900	0.57	C
7. Riego Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	8,100	0.39	D	-	-	-	-	6E	-	-	-
7a. Riego Rd. – Pacific Ave. to Road C	Sutter Co.	-	-	-	-	6E	31,000	0.40	C	6E	52,200	0.67	C
7b. Riego Rd. – Road C to Road D	Sutter Co.	-	-	-	-	6E	17,800	0.23	C	6E	35,900	0.46	C

Table 3.3-15 Roadway LOS: Existing Plus Phase 1 and Project Conditions													
Roadway Segment	Jurisdiction	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS
7c. Riego Rd. – Road D to Natomas Rd.	Sutter Co.		-	-	-	4E	18,900	0.37	C	6E	35,700	0.46	C
8. Riego Rd. – Natomas Road to Pleasant Grove Rd. (S)	Sutter Placer Co.	2R	10,700	0.51	D	2R	19,900	0.96	E	2R	32,000	1.54	F
9. Riego Rd. – Pleasant Grove Rd. (S) to Locust Rd.	Placer Co.	2M	10,600	0.59	A	2M	17,700	0.98	E	2M	26,000	1.44	F
10. Baseline Rd. – Locust Rd. to Brewer Rd.	Placer Co.	2M	12,100	0.67	B	2M	19,200	1.07	F	2M	28,100	1.56	F
11. Baseline Rd. – Brewer Rd. to Watt Ave.	Placer Co.	2M	11,200	0.62	B	2M	18,200	1.01	F	2M	27,100	1.51	F
12. Baseline Rd. – Watt Ave. to Fiddymont Dr.	Placer Co.	2M	12,600	0.70	B	2M	15,900	0.88	D	2M	20,700	1.15	F
13. Elverta Rd. – Power Line Rd. to SR 70/SR 99	Sacramento Co.	<u>2RS</u>	1,000	0.05	A	<u>2RS</u>	1,000	0.05	A	<u>2RS</u>	11,600	0.58	<u>D</u>
14. Elverta Rd. – SR 70/SR 99 to East Levee Rd.	Sacramento Co.	<u>2RS</u>	6,100	0.31	<u>C</u>	<u>2RS</u>	8,300	0.42	<u>D</u>	<u>2RS</u>	10,300	0.52	<u>D</u>
15. Elverta Rd. – East Levee Rd. to Sorento Rd.	Sacramento Co.	2M	7,900	0.44	A	2M	10,800	0.60	A	2M	13,600	0.76	C
16. Elverta Rd. – Sorento Rd. to 16th St.	Sacramento Co.	2M	8,700	0.48	A	2M	10,900	0.61	B	2M	14,800	0.82	D
17. Elverta Rd. – 16th St. to Watt Ave.	Sacramento Co.	2M	15,400	0.86	D	2M	15,500	0.86	D	2M	17,500	0.97	E
18. Power Line Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C
19. Power Line Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	300	0.01	C	2R	1,000	0.05	C	2R	9,400	0.45	D
20. Power Line Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	300	0.02	A	2RS	1,000	0.05	A	2RS	12,800	0.64	E

Table 3.3-15 Roadway LOS: Existing Plus Phase 1 and Project Conditions													
Roadway Segment	Jurisdiction	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS
21. Power Line Rd. – Elverta Rd. to Elkhorn Blvd.	Sacramento Co.	2RS	400	0.02	A	2RS	500	0.03	A	2RS	2,200	0.11	A
22. Pacific Ave. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	900	0.04	C	-	-	-	-	-	-	-	-
22a. Pacific Ave. – Sankey Rd. to Road K	Sutter Co.	-	-	-	-	2U	900	0.05	C	2U	11,100	0.34	C
22b. Pacific Ave. – Road K to Road J	Sutter Co.	-	-	-	-	2U	900	0.05	C	2U	14,100	0.43	C
22c. Pacific Ave. – Road J to Riego Rd.	Sutter Co.	-	-	-	-	4U	4,100	0.12	C	4U	19,100	0.58	C
23. Natomas Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C
24. Natomas Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	700	0.03	C	2R	1,700	0.08	C	2R	7,100	0.34	C
25. East Levee Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	700	0.04	A	2RS	1,700	0.09	A	2RS	7,100	0.36	C
26. Pleasant Grove Rd. (N) – Sankey Rd to Riego Rd.	Sutter Co.	2R	1,700	0.08	C	2R	1,700	0.08	C	2R	2,100	0.10	C
27. Pleasant Grove Rd. (S) – Riego Rd. to Sacramento County Line	Sutter Co.	2R	1,800	0.09	C	2R	3,700	0.18	C	2R	7,400	0.36	D
28. Sorento Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2M	1,800	0.10	A	2M	2,200	0.12	A	2M	4,300	0.24	A
29. Locust Rd. – Sankey Rd. to Baseline Rd.	Placer Co.	2M	1,500	0.08	A	2M	1,500	0.08	A	2M	3,400	0.19	A
30. Brewer Rd. – Phillip Rd. to Baseline Rd.	Placer Co.	2M	600	0.03	A	2M	600	0.03	A	2M	700	0.04	A
31. Palladay Rd. – Baseline Rd. to Sacramento County Line	Placer Co.	2M	200	0.01	A	2M	200	0.01	A	2M	400	0.02	A
32. Palladay Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	200	0.01	A	2RS	200	0.01	A	2RS	400	0.02	A
33. 16th St. – Kasser Rd. to Elverta Rd.	Sacramento Co.	2RS	600	0.03	A	2RS	1,200	0.06	A	2RS	1,000	0.05	A

**Table 3.3-15
Roadway LOS: Existing Plus Phase 1 and Project Conditions**

Roadway Segment	Jurisdiction	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS
34. Watt Ave. – Baseline Rd. to PFE Rd.	Sacramento Placer Co.	2H	7,100	0.36	A	2M	10,600	0.59	A	2M	11,900	0.60	A
35. Watt Ave. – PFE Rd. to Elverta Rd.	Sacramento Co.	5M	10,100	0.22	A	5M	12,100	0.27	A	5M	13,900	0.31	A
36. Walerga Rd. – Baseline Rd. to PFE Rd.	Placer Co.	2M	14,900	0.83	D	2M	14,900	0.83	D	2M	14,900	0.83	D
37. Elkhorn Blvd. – SR 70/SR 99 to Northborough Dr.	Sacramento Co.	2M	13,900	0.77	C	2M	15,400	0.86	D	2M	16,800	0.93	E
38. Elkhorn Blvd. – Northborough Dr. to Natomas Blvd.	Sacramento Co.	2M	11,800	0.66	B	2M	12,000	0.67	B	2M	12,900	0.72	C
39. Elkhorn Blvd. – Natomas Blvd. to Sageview Dr.	Sacramento Co.	2M	14,500	0.81	D	2M	14,500	0.81	D	2M	15,000	0.83	D
40. Elkhorn Blvd. – Sageview Dr. to East Levee Rd.	Sacramento Co.	2M	14,700	0.82	D	2M	14,700	0.82	D	2M	15,200	0.84	D
41. I-5 – SR 70/SR 99 to Del Paso Rd.	Sacramento Co.	6F	103,000	0.81	D	6F	117,600	0.98	E	6F	139,100	1.16	F
42. I-5 – Del Paso Rd. to Arena Blvd.	Sacramento Co.	6F	127,000	1.00	F	6F	138,200	1.15	F	6F	155,900	1.30	F
43. I-5 – Arena Blvd. to I-80	Sacramento Co.	8F	139,000	0.82	D	8F	149,000	0.93	E	8F	165,300	1.03	F
44. Sunset Blvd. (West) – East of Brewer Rd.	Placer Co.	2RH	1,900	0.08	A	2RH	3,200	0.13	B	2RH	5,200	0.21	B
45. E. Catlett Rd. – East of Brewer Rd.	Placer Co.	2RH	1,000	0.04	A	2RH	1,600	0.06	A	2RH	2,500	0.10	A
46. Moore Rd. – East of Brewer Rd.	Placer Co.	2RH	1,000	0.04	A	2RH	1,100	0.04	A	2RH	1,100	0.04	A

Note:

¹ Road Class corresponds to the classification shown in Table 3.3-4 for Sutter County, Placer County, and Sacramento County roadways.

Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.

Bold indicates a significant impact.

Cells with “-” denote facilities that do exist for specified scenario.

Source: Fehr & Peers 2008

Table 3.3-16 Intersection LOS: Existing Plus Phase 1 and Project Conditions																
Intersections	Jurisdiction	Existing				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions						
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²
1. Sankey Rd./ Power Line Rd.	Sutter Co.	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A
2. Sankey Rd./ SR 70/SR 99	Sutter Co.	Side-Street Stop	>50	F	37	E	Side-Street Stop	>50	F	>50	F	Side-Street Stop	>50	F	>50	F
3. Sankey Rd./ Pacific Ave.	Sutter Co.	Side-Street Stop	10	A	9	A	Side-Street Stop	10	A	9	A	Signal	24	C	48	D
4. Riego Rd./ Power Line Rd.	Sutter Co.	All-Way Stop	7	A	7	A	All-Way Stop	7	A	7	A	Signal	17	B	25	C
5. Riego Rd./ SR 70/SR 99	Sutter Co.	Signal	66	E	23	C	Signal	>80	F	>80	F	Signal	>80	F	>80	F
6. Riego Rd./ Pacific Ave.	Sutter Co.	Side-Street Stop	16	C	14	B	Signal	13	B	12	B	Signal	43	D	46	D
7. Riego Rd./ Natomas Rd.	Sutter Co.	All-Way Stop	33	D	23	C	Signal	6.5	A	11	B	Signal	28	C	12	B
8. Riego Rd./Pleasant Grove Rd. (N)	Sutter Co.	All-Way Stop	>50	F	31	D	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F
9. Riego Rd./Pleasant Grove Rd. (S)	Placer Co.	All-Way Stop	>50	F	42	E	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F
10. Baseline Rd./ Locust Rd.	Placer Co.	All-Way Stop	>50	F	43	E	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F

Table 3.3-16 Intersection LOS: Existing Plus Phase 1 and Project Conditions																
Intersections	Jurisdiction	Existing				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions						
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²
11. Baseline Rd./ Brewer Rd.	Placer Co.	Side-Street Stop	24	C	22	C	Side-Street Stop	37	E	40	E	Side-Street Stop	>50	F	>50	F
12. Baseline Rd./ Watt Ave.	Placer Co.	Signal	12	B	19	B	Signal	18	B	23	C	Signal	23	C	21	C
13. Baseline Rd./ Walerga Rd.	Placer Co.	Signal	36	D ²	63	E ²	Signal	38	D	44	D	Signal	36	D	44	D
14. Elverta Rd./ Power Line Rd.	Sacramento Co.	All- Way Stop	8	A	7	A	All- Way Stop	8	A	7	A	All- Way Stop	>50	F	>50	F
15. Elverta Rd./ SR 70/SR 99	Sacramento Co.	Signal	>80 (1.07)	F (F)	30 (0.91)	C (E)	Signal	>80 (1.16)	F (F)	>80 (1.25)	F (F)	Signal	>80 (1.64)	F (F)	>80 (1.92)	F (F)
16. Elverta Rd./ East Levee Rd.	Sacramento Co.	All- Way Stop	19	C	31	D	All- Way Stop	>50	F	47	E	All- Way Stop	>50	F	>50	F
17. Elverta Rd./ Sorento Rd.	Sacramento Co.	Side- Street Stop	13	B	14	B	Side- Street Stop	40	E	27	D	Side- Street Stop	>50	F	>50	F
18. Elverta Rd./ Palladay Rd.	Sacramento Co.	Side- Street Stop	13	B	15	C	Side- Street Stop	14	B	14	B	Side- Street Stop	15	B	16	C
19. Elverta Rd./16th St.	Sacramento Co.	Side- Street Stop	20	C	20	C	Side- Street Stop	22	C	31	D	Side- Street Stop	29	D	39	E
20. Elverta Rd./ Watt Ave.	Sacramento Co.	Signal	30 (0.48)	C (A)	28 (0.54)	C (A)	Signal	28 (0.50)	C (A)	28 (0.57)	C (A)	Signal	52 (0.51)	D (A)	56 (0.56)	E (A)
21. Elkhorn Blvd./ SR 70/SR 99 SB Ramps	Sacramento Co.	Side- Street Stop	9	A	9	A	Side- Street Stop	10	A	19	C	Side- Street Stop	11	B	41	E

Table 3.3-16 Intersection LOS: Existing Plus Phase 1 and Project Conditions																
Intersections	Jurisdiction	Existing				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions						
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²
22. Elkhorn Blvd./ SR 70/SR 99 NB Ramps	Sacramento Co.	Side-Street Stop	12	B	>50	F	Side-Street Stop	12	B	>50	F	Side-Street Stop	16	C	>50	F
23. Elkhorn Blvd./ Natomas Blvd.	Sacramento Co.	Signal	12 (0.51)	B (A)	13 (0.69)	B (B)	Signal	13 (0.52)	B (A)	14 (0.70)	B (B)	Signal	13 (0.54)	B (A)	14 (0.72)	B (C)
24. Elkhorn Blvd./ East Levee Rd.	Sacramento Co.	Side-Street Stop	24	C	23	C	Side-Street Stop	23	C	22	C	Side-Street Stop	31	D	>50	F
45. Riego Rd./Road U	Sutter Co.	-	-	-	-	-	-	39	D	23	C	Signal	31	C	38	D
46. Riego Rd./Road R	Sutter Co.	-	-	-	-	-	Signal	30	C	36	D	Signal	12	B	27	C
47. Riego Rd./Road S	Sutter Co.	-	-	-	-	-	Signal	43	D	55	D	Signal	23	C	54	D
48. Riego Rd./ SR 70/SR 99 SB Ramps	Sutter Co.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49. Riego Rd./ SR 70/ SR 99 NB Ramps	Sutter Co.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50. Riego Rd./Road A	Sutter Co.	-	-	-	-	-	Signal	48	D	53	D	Signal	39	D	55	D
51. Riego Rd./Road C	Sutter Co.	-	-	-	-	-	Signal	22	C	41	D	Signal	37	D	38	D
52. Riego Rd./Road D	Sutter Co.	-	-	-	-	-	Signal	9	A	9	A	Signal	43	D	48	D
53. Power Line Rd./ Road T	Sutter Co.	-	-	-	-	-	Signal	22	C	14	B	Signal	10	A	11	B

**Table 3.3-16
Intersection LOS: Existing Plus Phase 1 and Project Conditions**

Intersections	Jurisdiction	Existing				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions						
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²
66. Sankey Rd./Road C	Sutter Co.	-	-	-	-	-	Signal	22	C	46	D	Signal	33	C	21	C

Note:

- ¹ For signalized intersections analyzed and all-way stop intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, delay is reported for side-street movement with highest delay.
- ² V/C and LOS based on Circular 212 procedure. Applies only to Sacramento County signalized intersections.
- ³ Field observations showed that not all peak demand flows were served and that actual operations are worse.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Cells with “-” denote facilities that do exist for specified scenario.

Source: Fehr & Peers 2008

Table 3.3-17 Freeway LOS: Existing Plus Phase 1 and Project Conditions														
Freeway Facility ⁴	Type	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions				
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		
		Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	
1. NB SR 70/SR 99 North of Sankey Road (Placer Parkway)	Mainline	8.5	A	16.3	B	8.6	A	18.1	C	9.3	A	19.6	C	
2. NB SR 70/SR 99 at Placer Parkway on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	
3. NB SR 70/SR 99 at Placer Parkway off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	
4. NB SR 70/SR 99 between Sankey Road (Placer Parkway) and Riego Road	Mainline	8.4	A	15.8	B	8.6	A	17.8	B	15.6	B	21.9	C	
5. NB SR 70/SR 99 at Riego Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	17.6	B	23.8	C	
6. NB SR 70/SR 99 at Riego Road loop on-ramp	Merge					10.4	B	19.8	B	17.2	B	21.2	C	
7. NB SR 70/SR 99 at Riego Road off-ramp	Diverge	-	-	-	-	25.7	C	39.3	E	24.2	C	20.2	B	
8. NB SR 70/SR 99 between Riego Road and Elverta Road	Mainline	<u>10.1</u>	A	<u>12.2</u>	<u>B</u>	20.3	C	35.6	E	38.8	E	31.9	D	
9. NB SR 70/SR 99 at Elverta Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	
10. NB SR 70/SR 99 at Elverta Road loop on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	
11. NB SR 70/SR 99 at Elverta Road off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	
12. NB SR 70/SR 99 between Elverta Road and Elkhorn Boulevard	Mainline	10.9	A	25.1	C	17.0	B	32.3	D	40.5	E	36.3	E	
13. NB SR 70/SR 99 at Elkhorn Boulevard slip on-ramp	Merge	13.3	B	27.7	C	19.3	B	33.2	D	37.0	E	35.5	E	

Table 3.3-17 Freeway LOS: Existing Plus Phase 1 and Project Conditions													
Freeway Facility ⁴	Type	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²
14. NB SR 70/SR 99 at Elkhorn Boulevard loop on-ramp	Merge	11.4	B	25.8	C	16.6	B	30.4	D	34.2	D	33.4	D
15. NB SR 70/SR 99 at Elkhorn Boulevard off-ramp	Diverge	16.4	B	39.3	E	21.6	C	42.3	E	39.4	E	-	F
16. NB SR 70/SR 99 between I-5 interchange and Elkhorn Boulevard	Mainline	12.5	B	36.6	E	17.1	B	43.3	E	38.6	E	-	F
17. NB I-5 between SR 70/SR 99 and Airport Boulevard	Mainline	27.9	D	22.3	C	28.8	D	24.8	C	29.2	D	23.2	C
18. NB I-5 to NB SR 70/SR 99 off-ramp	Major Diverge	14.1	B	22.1	C	16.2	B	23.9	C	23.9	C	24.4	C
19. NB I-5 between Del Paso Road and SR 70/SR 99 interchange	Mainline	19.9	C	33.4	D	22.8	C	28.3	E	38.2	E	40.1	E
20. NB I-5 at Del Paso Road on-ramp	Merge	22.4	C	32.8	D	25.1	C	35.2	E	35.6	D	35.8	E
21. SB SR 70/SR 99 North of Sankey Road (Placer Parkway)	Mainline	19.3	C	8.2	A	19.7	C	8.3	A	23.1	C	9.2	A
22. SB SR 70/SR 99 at Placer Parkway off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-
23. SB SR 70/SR 99 at Placer Parkway on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
24. SB SR 70/SR 99 between Sankey Road (Placer Parkway) and Riego Road	Mainline	18.4	C	8.1	A	19.1	C	8.3	A	23.6	C	15.2	B
25. SB SR 70/SR 99 at Riego Road off-ramp	Diverge	-	-	-	-	24.4	C	12.3	B	12.6	B	3.3	A
26. SB SR 70/SR 99 at Riego Road loop on-ramp						31.0	D	26.8	C	22.5	C	20.3	C
27. SB SR 70/SR 99 at Riego Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	28.8	D	34.5	D

Table 3.3-17 Freeway LOS: Existing Plus Phase 1 and Project Conditions														
Freeway Facility ⁴	Type	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions				
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		
		Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	
28. SB SR 70/SR 99 between Riego Road and Elverta Road	Mainline	<u>23.0</u>	<u>C</u>	<u>10.2</u>	A	31.2	D	26.9	D	27.5	D	38.1	E	
29. SB SR 70/SR 99 at Elverta Road off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	
30. SB SR 70/SR 99 at Elverta Road loop on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	
31. SB SR 70/SR 99 at Elverta Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	
32. SB SR 70/SR 99 between Elverta Road and Elkhorn Boulevard	Mainline	26.4	D	10.8	A	27.5	D	21.0	C	28.6	D	36.6	E	
33. SB SR 70/SR 99 at Elkhorn Boulevard off-ramp	Diverge	31.8	D	14.5	B	31.0	D	25.9	C	33.8	D	39.3	E	
34. SB SR 70/SR 99 at Elkhorn Boulevard loop on-ramp	Merge	34.9	D	15.3	B	35.6	E	23.5	C	36.3	E	34.8	D	
35. SB SR 70/SR 99 at Elkhorn Boulevard slip on-ramp	Merge	24.9	D	15.0	B	34.5	E	23.3	C	37.0	E	36.1	E	
36. SB SR 70/SR 99 between I-5 interchange and Elkhorn Boulevard	Mainline	36.1	E	13.1	B	37.7	E	21.4	C	39.3	E	37.5	E	
37. SB SR 70/SR 99 to NB I-5 off-ramp	Diverge	27.4	C	5.4	A	28.2	D	14.6	B	29.0	D	28.1	C	
38. SB SR 70/SR 99 to NB I-5 on-ramp	Merge	22.7	C	18.4	B	23.4	C	20.9	C	23.7	C	19.3	B	
39. SB SR 70/SR 99 to SB I-5 on-ramp	Weave	N/A ³	E	N/A ³	C	N/A ³	E	N/A ³	D	N/A ³	E	N/A ³	F	
40. SB I-5 between SR 70/SR 99 interchange and Del Paso Road														
41. SB I-5 at Del Paso Road off-ramp	Diverge	23.9	C	15.4	B	26.1	C	20.3	C	25.1	C	28.0	C	

**Table 3.3-17
Freeway LOS: Existing Plus Phase 1 and Project Conditions**

Freeway Facility ⁴	Type	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²	Density ¹	LOS ²
42. SB I-5 between Airport Boulevard and SR 70/SR 99 interchange	Mainline	21.4	C	24.3	C	25.9	C	25.7	C	23.8	C	24.4	C
43. SB I-5 to NB SR 70/SR 99 off-ramp	Diverge	14.7	B	17.9	B	19.6	B	19.4	B	17.4	B	18.0	B
44. SB I-5 to NB SR 70/SR 99 on-ramp	Merge	8.4	A	29.0	D	13.0	B	31.7	D	29.8	D	-	F
45. EB Placer Parkway between SR 70/SR 99 to Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-
46. EB Placer Parkway at Road C off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-
47. EB Placer Parkway at Road C on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
48. EB Placer Parkway East of Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-
49. WB Placer Parkway East of Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-
50. WB Placer Parkway at Road C off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-
51. WB Placer Parkway at Road C on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
52. WB Placer Parkway between Road C and SR 70/SR 99	Mainline	-	-	-	-	-	-	-	-	-	-	-	-

Notes: Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.

Bold indicates a significant impact.

Cells with "-" denote facilities that do exist for specified scenario.

¹ Density reported in passenger cars per mile per lane.

² Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000).

³ Weaving section analyzed using the Leisch Method, LOS not based on density.

⁴ Peak hour factors of 0.92 and 0.97 were used for the AM and PM peak hours, respectively. The peak hour factors are based on traffic counts collected at the SR 99/Riego Road intersection in May 2007.

Source: Fehr & Peers 2008

Table 3.3-18 Roadway LOS: Cumulative Plus Phase 1 and Project Conditions																	
Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS
1. Sankey Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	200	0.01	C	2R	200	0.01	C	2R	200	0.01	C	2R	200	0.01	C
2. Sankey Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	1,400	0.07	C	2U	2,900	0.18	C	4E	32,600	0.63	C	4F	40,900	0.51	B
3. Sankey Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	1,300	0.06	C	-				-	-	-	-	-	-	-	-
3a. Sankey Rd. – Pacific Ave. to Road C	Sutter Co.	-	-	-	-	2R	2,500	0.12	C	4E	9,500	0.18	C	4F	40,900	0.51	B
3b. Sankey Rd. – Road C to Pleasant Grove Rd. (N)	Sutter Co.	-	-	-	-	2R	1,700	0.08	C	4E	7,900	0.15	C	4F	44,400	0.56	C
4. Sankey Rd. – Pleasant Grove Rd. (N) to Locust Rd.	Sutter Co.	2R	1,500	0.07	C	2R	1,600	0.08	C	2R	5,700	0.27	C	4F	1,500	0.02	A
5. Riego Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	900	0.04	C	-				-	-	-	-	-	-	-	-
5a. Riego Rd. – Power Line Rd. to Road U	Sutter Co.	-	-	-	-	2U	1,900	0.12	C	4U	8,000	0.24	C	4U	8,100	0.25	C
5b. Riego Rd. – Road U to Road R	Sutter Co.	-	-	-	-	4U	1,900	0.06	C	4U	23,000	0.70	C	4U	23,600	0.72	C
5c. Riego Rd. – Road R to Road S	Sutter Co.	-	-	-	-	6U	8,300	0.17	C	6U	33,800	0.68	C	6U	34,800	0.70	C
5d. Riego Rd. – Road S to SR 70/SR 99	Sutter Co.	-	-	-	-	6E	49,900	0.64	C	8E	82,200	0.80	D	8E	83,600	0.81	D

Table 3.3-18 Roadway LOS: Cumulative Plus Phase 1 and Project Conditions																	
Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS
6. Riego Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	20,000	0.96	E	-				-	-	-	-	-	-	-	-
6a. Riego Rd. – SR 70/SR 99 to Road A	Sutter Co.	-	-	-	-	6E	58,900	0.76	D	8E	83,600	0.81	D	8E	87,300	0.85	D
6b. Riego Rd. – Road A to Pacific Ave.	Sutter Co.	-	-	-	-	6E	43,500	0.56	C	8E	65,200	0.63	C	8E	67,000	0.65	C
7. Riego Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	19,300	0.93	E	-				-	-	-	-	-	-	-	-
7a. Riego Rd. – Pacific Ave. to Road C	Sutter Co.		-	-	-	6E	40,000	0.52	C	6E	57,800	0.75	C	6E	53,900	0.70	C
7b. Riego Rd. – Road C to Road D	Sutter Co.		-	-	-	6E	27,700	0.36	C	6E	41,100	0.53	C	6E	38,900	0.50	C
7c. Riego Rd. – Road D to Natomas Rd.	Sutter Co.		-	-	-	4E	30,600	0.59	C	6E	44,000	0.57	C	6E	41,800	0.54	C
8. Riego Rd. – Natomas Rd. to Pleasant Grove Rd. (S)	Sutter Co.	2R	23,100	1.11	F	2R	31,100	1.50	F	2R	40,700	1.96	F	2R	38,600	1.86	F
9. Riego Rd. – Pleasant Grove Rd. (S) to Locust Rd.	Placer Co.	2M	22,200	1.23	F	2M	28,800	1.60	F	2M	34,900	1.94	F	2M	32,700	1.82	F
10. Baseline Rd. – Locust Rd. to Brewer Rd.	Placer Co.	6H	23,700	0.40	A	6H	29,100	0.49	A	6H	38,800	0.65	B	6H	32,700	0.55	A
11. Baseline Rd. – Brewer Rd. to Watt Ave.	Placer Co.	6H	44,200	0.74	C	6H	47,700	0.80	C	6H	54,300	0.91	E	6H	48,500	0.81	D
12. Baseline Rd. – Watt Ave. to Fiddymont Dr.	Placer Co.	6M	33,300	0.62	B	6M	34,900	0.65	B	6M	37,800	0.70	B	6M	34,600	0.64	B

**Table 3.3-18
Roadway LOS: Cumulative Plus Phase 1 and Project Conditions**

Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS
13. Elverta Rd. – Power Line Rd. to SR 70/SR 99	Sacramento Co.	<u>2RS</u>	3,900	0.20	<u>B</u>	<u>2RS</u>	4,600	0.23	<u>C</u>	<u>2RS</u>	11,700	0.59	<u>D</u>	<u>2RS</u>	11,700	0.59	<u>D</u>
14. Elverta Rd. – SR 70/SR 99 to East Levee Rd.	Sacramento Co.	<u>2RS</u>	16,900	0.85	<u>E</u>	<u>2RS</u>	20,700	1.04	F	<u>2RS</u>	23,200	1.16	F	<u>2RS</u>	19,600	0.98	E
15. Elverta Rd. – East Levee Rd. to Sorento Rd.	Sacramento Co.	2H	23,200	1.16	F	2H	26,100	1.31	F	2H	31,300	1.57	F	2H	27,500	1.38	F
16. Elverta Rd. – Sorento Rd. to 16th St.	Sacramento Co.	4M	27,700	0.77	C	4M	30,700	0.85	D	4M	36,200	1.01	F	4M	33,300	0.93	E
17. Elverta Rd. – 16th St. to Watt Ave. ²	Sacramento Co.	5M	37,200	0.83	D	5M	38,500	0.86	D	5M	41,900	0.93	E	5M	39,900	0.89	D
18. Power Line Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C	2R	500	0.02	C
19. Power Line Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	300	0.01	C	2R	1,000	0.05	C	2R	7,200	0.35	C	2R	7,300	0.35	D
20. Power Line Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	300	0.02	A	2RS	900	0.05	A	2RS	11,200	0.56	D	2RS	11,100	0.56	D
21. Power Line Rd. – Elverta Rd. to Elkhorn Blvd.	Sacramento Co.	2RS	400	0.02	A	2RS	400	0.02	A	2RS	400	0.02	A	2RS	400	0.02	A

Table 3.3-18 Roadway LOS: Cumulative Plus Phase 1 and Project Conditions																	
Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS
22. Pacific Ave. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	900	0.04	C	-				-	-	-	-	-	-	-	-
22a. Pacific Ave. – Sankey Rd. to Road K	Sutter Co.	-	-	-	-	2U	900	0.05	C	4U	12,800	0.39	C	4U	17,900	0.54	C
22b. Pacific Ave. – Road K to Road J	Sutter Co.	-	-	-	-	2U	900	0.05	C	4U	14,300	0.43	C	4U	23,200	0.70	C
22c. Pacific Ave. – Road J to Riego Rd.	Sutter Co.	-	-	-	-	4U	4,400	0.13	C	4U	19,000	0.58	C	4U	27,200	0.83	D
23. Natomas Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C
24. Natomas Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	700	0.03	C	2R	2,300	0.11	C	2R	6,400	0.31	C	2R	6,200	0.30	C
25. East Levee Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	700	0.04	A	2RS	2,300	0.12	B	2RS	6,400	0.32	C	2RS	6,200	0.31	C
26. Pleasant Grove Rd. (N) – Sankey Rd to Riego Rd.	Sutter Co.	2R	3,600	0.17	C	2R	3,400	0.16	C	2R	4,100	0.20	C	2R	3,400	0.16	C
27. Pleasant Grove Rd. (S) – Riego Rd. to Sacramento County Line	Sutter Co.	2R	2,000	0.10	C	2R	3,300	0.16	C	2R	6,800	0.33	C	2R	6,800	0.33	C
28. Sorento Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2M	2,600	0.14	A	2M	2,700	0.15	A	2M	4,400	0.24	A	2M	4,600	0.26	A
29. Locust Rd. – Sankey Rd. to Baseline Rd.	Placer Co.	2M	1,500	0.08	A	2M	1,700	0.09	A	2M	5,800	0.32	A	2M	2,100	0.12	A
30. Brewer Rd. – Phillip Rd. to Baseline Rd.	Placer Co.	2M	1,800	0.10	A	2M	2,300	0.13	A	2M	3,000	0.17	A	2M	2,800	0.16	A

Table 3.3-18 Roadway LOS: Cumulative Plus Phase 1 and Project Conditions																	
Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS	Lanes/ Road Class ¹	Volume	V/C	LOS
31. Palladay Rd. – Baseline Rd. to Sacramento County Line	Placer Co.	2M	5,800	0.32	A	2M	6,300	0.35	A	2M	6,700	0.37	A	2M	6,000	0.33	A
32. Palladay Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2M	12,100	0.67	B	2M	12,600	0.70	B	2M	12,800	0.71	C	2M	11,000	0.61	B
33. 16th St. – Kasser Rd. to Elverta Rd.	Sacramento Co.	2M	17,900	0.99	E	2M	18,400	1.02	F	2M	19,000	1.06	F	2M	25,600	1.42	F
34. Watt Ave. – Baseline Rd. to PFE Rd.	Placer Co.	6M	50,400	0.93	E	6M	51,000	0.94	E	6M	52,600	0.97	E	6M	51,500	0.95	E
35. Watt Ave. – PFE Rd. to Elverta Rd.	Sacramento Co.	5M	51,000	1.13	F	5M	51,200	1.14	F	5M	52,100	1.16	F	5M	50,700	1.13	F
36. Walerga Rd. – Baseline Rd. to PFE Rd.	Placer Co.	4M	34,100	0.95	E	4M	34,400	0.96	E	4M	34,500	0.96	E	4M	33,900	0.94	E
37. Elkhorn Blvd. – SR 70/SR 99 to Northborough Dr.	Sacramento Co.	6M	29,300	0.54	A	6M	30,100	0.56	A	6M	36,800	0.68	B	6M	36,500	0.68	B
38. Elkhorn Blvd. – Northborough Dr. to Natomas Blvd.	Sacramento Co.	6M	20,900	0.39	A	6M	19,900	0.37	A	6M	25,200	0.47	A	6M	24,800	0.46	A
39. Elkhorn Blvd. – Natomas Blvd. to Sageview Dr.	Sacramento Co.	6M	34,100	0.63	B	6M	32,200	0.60	A	6M	37,400	0.69	B	6M	36,900	0.68	B
40. Elkhorn Blvd. – Sageview Dr. to East Levee Rd.	Sacramento Co.	6M	35,300	0.65	B	6M	32,600	0.60	B	6M	36,600	0.68	B	6M	36,100	0.67	B
41. I-5 – SR 70/ SR 99 to Del Paso Rd.	Sacramento Co.	6F	171,500	1.43	F	6F	184,900	1.54	F	6F	205,200	1.71	F	6F	204,500	1.70	F

**Table 3.3-18
Roadway LOS: Cumulative Plus Phase 1 and Project Conditions**

Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/Road Class ¹	Volume	V/C	LOS	Lanes/Road Class ¹	Volume	V/C	LOS	Lanes/Road Class ¹	Volume	V/C	LOS	Lanes/Road Class ¹	Volume	V/C	LOS
42. I-5 – Del Paso Rd. to Arena Blvd.	Sacramento Co.	6F	199,100	1.66	F	6F	207,500	1.73	F	6F	223,800	1.87	F	6F	223,200	1.86	F
43. I-5 – Arena Blvd. to I-80	Sacramento Co.	8F	218,800	1.37	F	8F	225,400	1.41	F	8F	239,600	1.50	F	8F	239,400	1.50	F
44. Sunset Blvd. (West) – East of Brewer Rd.	Placer Co.	2RH	7,300	0.29	C	2RH	7,800	0.31	C	2RH	8,700	0.35	C	2RH	5,200	0.21	B
45. E. Catlett Rd. – East of Brewer Rd.	Placer Co.	2RH	2,000	0.08	A	2RH	2,600	0.10	A	2RH	3,400	0.14	B	2RH	1,100	0.04	A
46. Moore Rd. – East of Brewer Rd.	Placer Co.	2RH	1,100	0.04	A	2RH	1,200	0.05	A	2RH	1,500	0.06	A	2RH	1,100	0.04	A

Note:

¹ Road Class corresponds to the classification shown in Table 3.3-4 for Sutter County, Placer County, and Sacramento County roadways.

² Study segment include 4-lanes between 16 St. and 28th St. and 6-lanes between 28th St. and Watt Avenue. Segment analyzed as a 5-lane (5M) facility.

Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.

Bold indicates a significant impact.

Cells with “-” denote facilities that do exist for specified scenario.

Source: Fehr & Peers 2008

Table 3.3-20 is revised as shown below:

Table 3.3-20 Intersection LOS – Cumulative Plus Phase 1 and Project Conditions																					
Intersections	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions							
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²		Delay ¹ (V/C) ²	LOS (LOS) ²	Delay ¹ (V/C) ²	LOS (LOS) ²
1. Sankey Rd./ Power Line Rd.	Sutter Co.	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A
2. Sankey Rd./ SR 70/SR 99	Sutter Co.	Side-Street Stop	>50	F	>50	F	Side-Street Stop	>50	F	>50	F	Side-Street Stop	>50	F	>50	F	-	-	-	-	-
3. Sankey Rd./ Pacific Ave.	Sutter Co.	Side-Street Stop	12	B	13	B	Signal	11	B	12	B	Signal	26	C	46	D	-	-	-	-	-
4. Riego Rd./ Power Line Rd.	Sutter Co.	All-Way Stop	8	A	7	A	Signal	30	C	22	C	Signal	24	C	20	C	Signal	21	C	24	C
5. Riego Rd./ SR 70/SR 99	Sutter Co.	Signal	>80	F	>80	F	Signal	>80	F	>80	F	Signal	>80	F	>80	F	Signal	>80	F	>80	F
6. Riego Rd./ Pacific Ave.	Sutter Co.	Side-Street Stop	>50	F	>50	F	Signal	45	D	44	D	Signal	53	D	42	D	Signal	69	E	54	D
7. Riego Rd./ Natomas Rd.	Sutter Co.	All-Way Stop	>50	F	>50	F	Signal	13	B	10	A	Side-Street Stop	11	B	16	B	Side-Street Stop	11	B	16	C
8. Riego Rd./ Pleasant Grove Rd. (N)	Sutter Co.	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F
9. Riego Rd./ Pleasant Grove Rd. (S)	Placer Co.	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F
10. Baseline Rd./Locust Rd.	Placer Co.	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F	All-Way Stop	>50	F	>50	F
11. Baseline Rd./Brewer Rd.	Placer Co.	Signal	22	C	23	C	Signal	42	D	39	D	Signal	36	D	40	D	Signal	32	C	35	D
12. Baseline Rd./Watt Ave.	Placer Co.	Signal	>80	F	>80	F	Signal	>80	F	>80	F	Signal	>80	F	>80	F	Signal	>80	F	80	E
13. Baseline Rd./Walerga Rd.	Placer Co.	Signal	47	D	59	E	Signal	47	D	63	E	Signal	51	D	57	E	Signal	47	D	55	D
14. Elverta Rd./ Power Line Rd.	Sacramento Co.	All-Way Stop	8	A	7	A	All-Way Stop	8	A	7	A	All-Way Stop	15	B	>50	F	All-Way Stop	15	C	>50	F
15. Elverta Rd./SR 70/SR 99	Sacramento Co.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Elverta Rd./East Levee Rd.	Sacramento Co.	Side-Street Stop	>50	F	>50	F	Side-Street Stop	>50	F	>50	F	Side-Street Stop	>50	F	>50	F	Side-Street Stop	>50	F	>50	F

Figure 3.3-5 is revised as shown below:

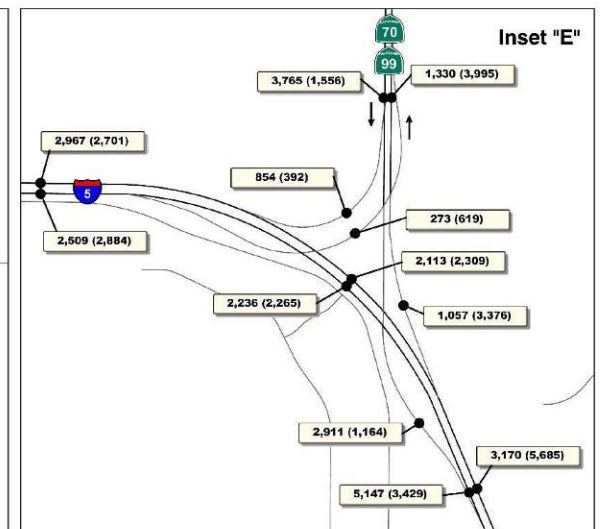
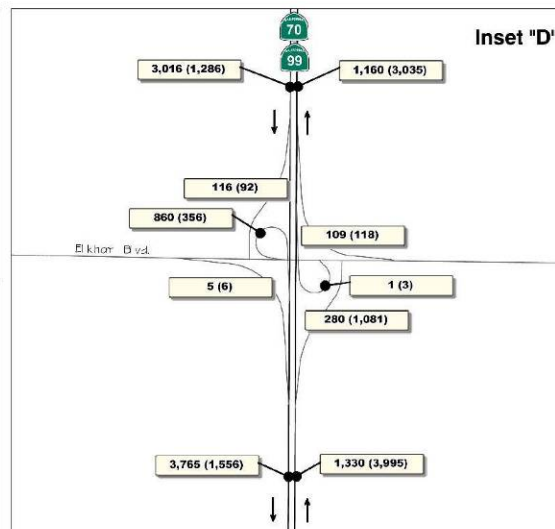
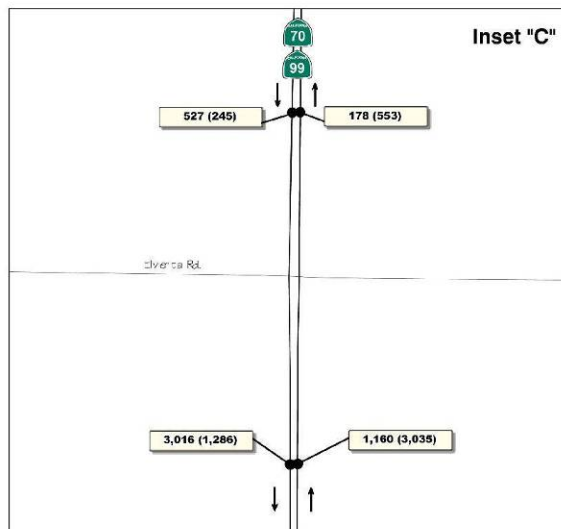
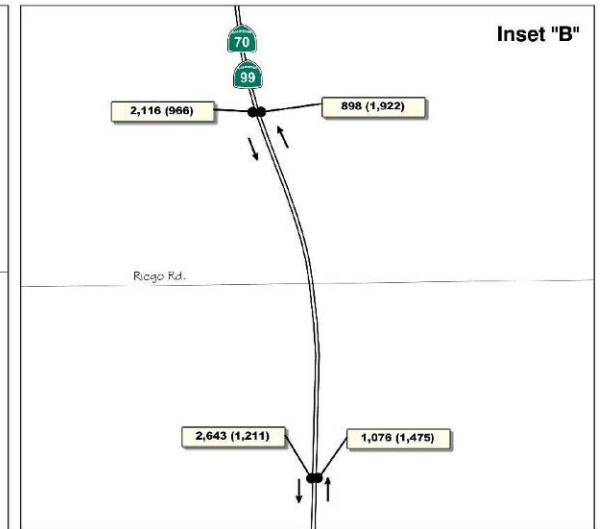
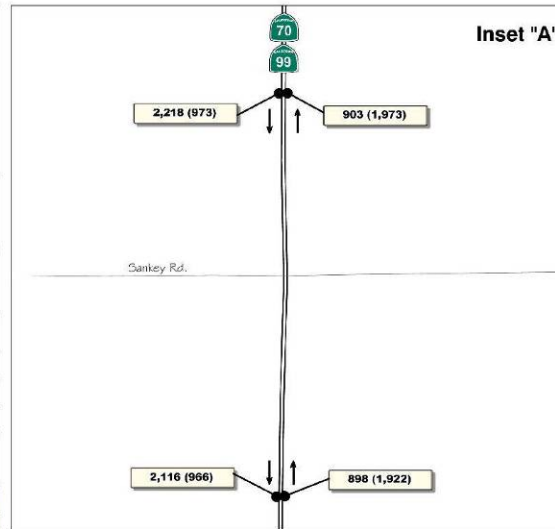
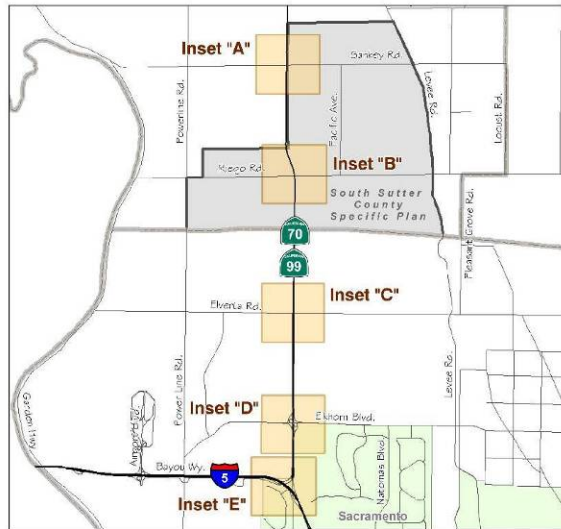
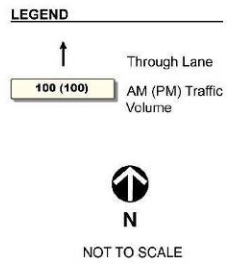
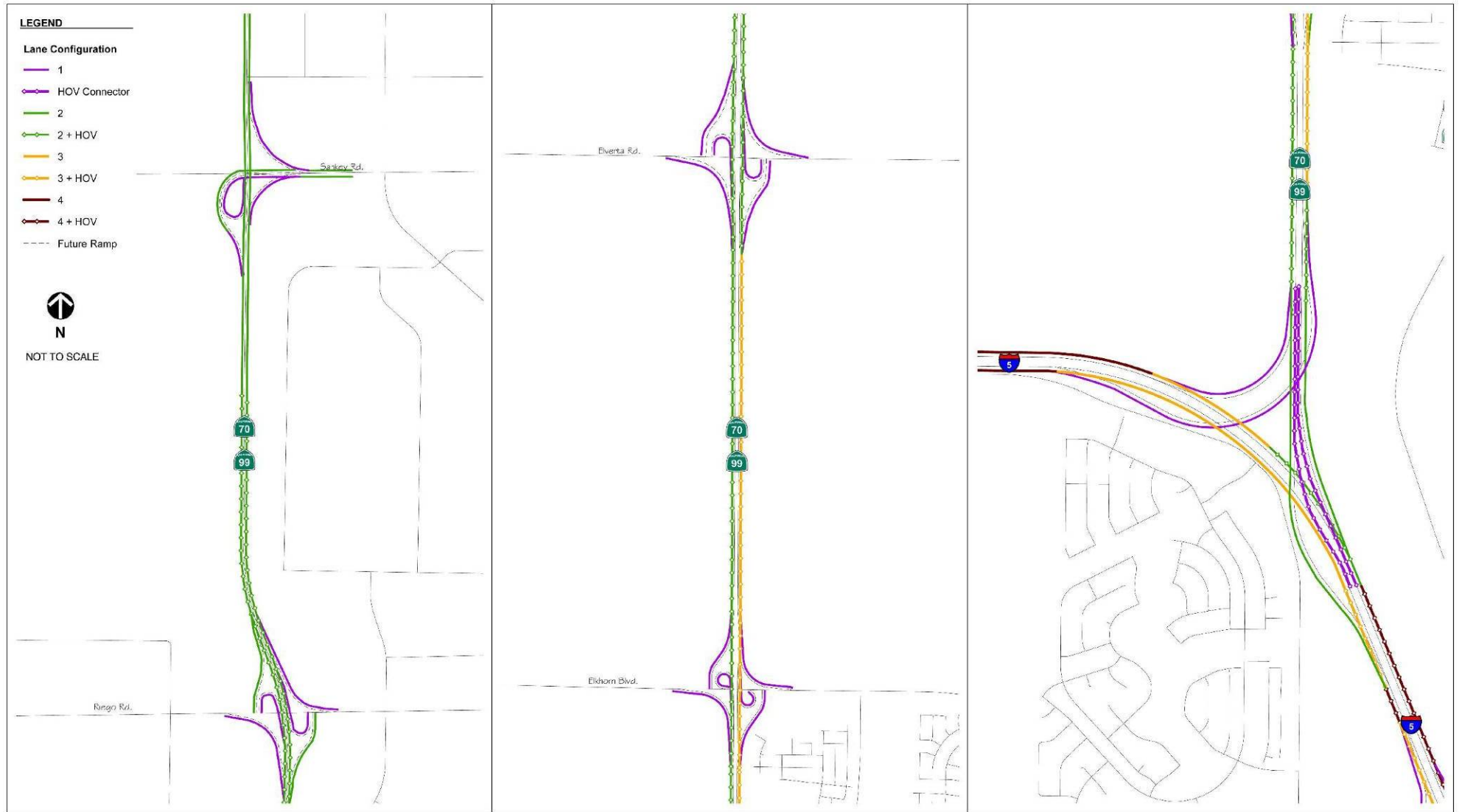


Figure 3.3-35 is revised as shown below:



Page 3.4-32, Mitigation Measure 3.4-2 is revised as shown below:

FRAQMD Standard Mitigation Measures Applicable to All Projects

- ▶ ~~Use EPA Phase II certified devices for all newly installed woodburning devices. Prohibit wood burning devices in all residences.~~

Page 3.4-43, Mitigation Measure 3.4-4a is revised as shown below:

The project applicant(s) of all project phases shall develop a plan to reduce the exposure of sensitive receptors to TACs from project construction. The plan shall be submitted to the County and the FRAQMD for review and approval before the approval of any grading plans.

Enforcement: Sutter County Community Services Department, and with input from the Feather River Air Quality Management District

Pages 3.5-3 and 3.5-4 are revised as shown below:

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No Federal plans, policies, regulations, or laws related to noise are applicable to the project. The environmental review of Federal projects generally defers to State, county, or other local guidelines. Vibration guidelines from the U.S. Department of Transportation, Federal Transit Administration (FTA) are discussed below as a means to guide the consideration of vibration impacts. Federal research on the effects of single event Sound Exposure Level noise levels (SEL) incidents is discussed below to establish standards for aircraft overflights and railroad passbys. The SEL (~~Single Event Noise Level~~) describes a receiver's cumulative noise exposure from a single ~~impulsive~~ noise event, which is defined as an acoustical event of short duration and which involves a change in sound pressure above some reference value.

Speech and Sleep Interference Criteria for Single Aircraft and Railroad Events

There is currently an on-going nationwide debate regarding the appropriateness of SEL criteria as a supplement or replacement for cumulative noise level metrics such as L_{dn} and CNEL, 24-hour noise descriptors. Because SEL describes a receiver's total noise exposure from a single impulsive event, SELs are often used to characterize noise from aircraft takeoffs and flyovers, as well as noise from individual railroad passages.

Sutter County has not established any SEL standards and no definitive, widely-recognized, SEL guidelines currently exist nationwide. To the extent that there is any guidance regarding acceptable SELs, the emphasis has been on physiological effects, not on land use planning (California Division of Aeronautics 2002). ~~For example, the Federal Aviation Administration (FAA) has suggested that the threshold of speech interference is 60 dBA.~~ Exposure to high SELs would result in speech interference at proposed residential dwellings and school facilities. Similarly, the Federal Interagency Committee on Aviation Noise (FICAN) has provided estimates of the percentage of people expected to be awakened when exposed to specific SELs inside a home (FICAN 1997). However, FICAN did not recommend a threshold of significance based on the percent of people awakened. One agency, the City of Los Angeles, adopted a significance threshold of 10% of the population being awakened once every 10 days (i.e., 1% of the population was awakened on any one day, on average) for use in the Los Angeles International Airport (LAX) Master Plan Environmental Impact Report/Environmental Impact Statement (EIR/EIS) (City of Los Angeles 2004). However, the document specifically cautioned that the threshold was for use in the LAX EIR/EIS only and that the specific environment of LAX was used in the establishment of the

thresholds. No other guidance or explanation of the rationale for this highly conservative threshold was provided.

According to the FICAN study, 10% of the population is estimated to be awakened when the SEL interior noise level of 81 dB. An estimated 5 to 10% of the population is affected when the SEL interior noise level is between 64.8 and 81 dB, and few sleep awakenings (less than 5%) are predicted if the interior SEL is less than 64.8 dB.

The threshold for sleep disturbance is not absolute because there is a high degree of variability from one person to another. Thus, the means of applying such research to land use decisions is not yet clear. As a result, no government agency has suggested what frequencies of awakenings or speech disruption are acceptable (California Division of Aeronautics 2002).

For these reasons, the Federal Interagency Committee on Noise (FICON) and the California Airport and Land Use Planning Handbook continue to use CNEL as the primary tool for the purpose of land use compatibility planning (California Division of Aeronautics 2002). In fact, the CNEL represents the cumulative exposure to all aircraft overflights; that is, the exposure of all SELs taken together, weighed to add penalties for evening and nighttime occurrences, and averaged over a 24-hour period. Thus, it can be argued that the CNEL standards already account for the individual impacts associated with the SELs.

In light of the disclosure statements, and the fact that interior SEL values between 65 and 81 dB can be expected to result in sleep interference for only 5–10% of the population, this analysis considers exceedance of ~~60 dB SEL for speech interference~~ and ~~70 dB SEL for sleep interference~~ 80 dB SEL for sleep disturbance to be significant for aircraft events.

Because of the relatively small number of daytime railroad events, and brief duration of warning horn usage during those events, speech interference during railroad passages is not considered to be a significant issue within either schools or residences. Because there are nighttime train passages, the same sleep ~~interference~~ disturbance criteria is applied to railroad events as is applied to aircraft events (~~70~~ 80 dB SEL inside with windows closed).

Pages 3.5-18 is revised as shown below:

During the 42-hour continuous railroad noise measurement survey, a total of 38 apparent railroad events were logged. This equates to approximately 22 train passages per day. In the Riego Road Conceptual Improvement Study (Dowling Associates 2007), it was reported that there are approximately 24 daily freight operations on this line, and two Amtrak operations. Because of normal fluctuations in rail activity, the level of activity recorded by BAC during the noise survey is generally consistent with that reported by Dowling Associates. For a conservative estimate of railroad noise exposure within the project site, noise levels in terms of L_{dn} were calculated assuming 26 daily operations. The predicted railroad noise levels are provided in Table 3.5-15, with distances to the 60 dB, 65 dB and 70 dB L_{dn} contours and the 105~~95~~ dB SEL contours provided. The significance of the 91~~105~~ dB SEL contour is provided later, as it relates to the assessment of sleep disturbance impacts during nighttime railroad events.

Pages 3.5-19 is revised as shown below:

Table 3.5-15 Existing Union Pacific Railroad Noise Levels (June 6–8, 2005 and August 29, 2007)					
Affected by Horn Noise	Distance to Noise Contours (feet) ¹				Predicted L _{dn} at 150 feet
	60 dB L _{dn}	65 dB L _{dn}	70 dB L _{dn}	9105 dB SEL	
Yes	<u>1,200</u> 500	<u>600</u> 700	<u>300</u> 325	<u>600</u> 130	75 dB
No	<u>700</u> 600	<u>325</u> 300	<u>150</u> 150	<u>300</u> 60	70 dB

Notes: Locations within ¼ mile of grade crossings are considered affected by horn noise.
¹ Predicted distances to noise level contours are from the railroad track centerline. Distances to contours were predicted assuming a 4.5 dB decrease for each doubling of distance. ~~The calculations do not take into account for and an additional attenuation rate of 1.5 dB per thousand feet potential on-site shielding, for atmospheric absorption and or excess ground attenuation.~~

Source: ~~Adapted by EDAW 2009~~BAC 2008

Aircraft Noise

Sacramento International Airport is located southwest of the project site near Interstate 5 (I-5) and the Sacramento River. The runways for the airport run almost north south (16/34), with the main approach and departure corridors for aircraft in close proximity to the airport tracking with those runways. As a result, the noise exposure contours for Sacramento ~~international~~ International Airport generally extend northerly and southerly away from the runways. The approach and departure corridors along with the 60 dB 65 dB, 70 dB, and 75 dB airport noise contours, as contained in the Sacramento International Airport Comprehensive Land Use Plan (CLUP) (SACOG 2008), are shown in, ~~as indicated in~~ Exhibit 3.5-2.

Page 3.5-20 is revised as shown below:

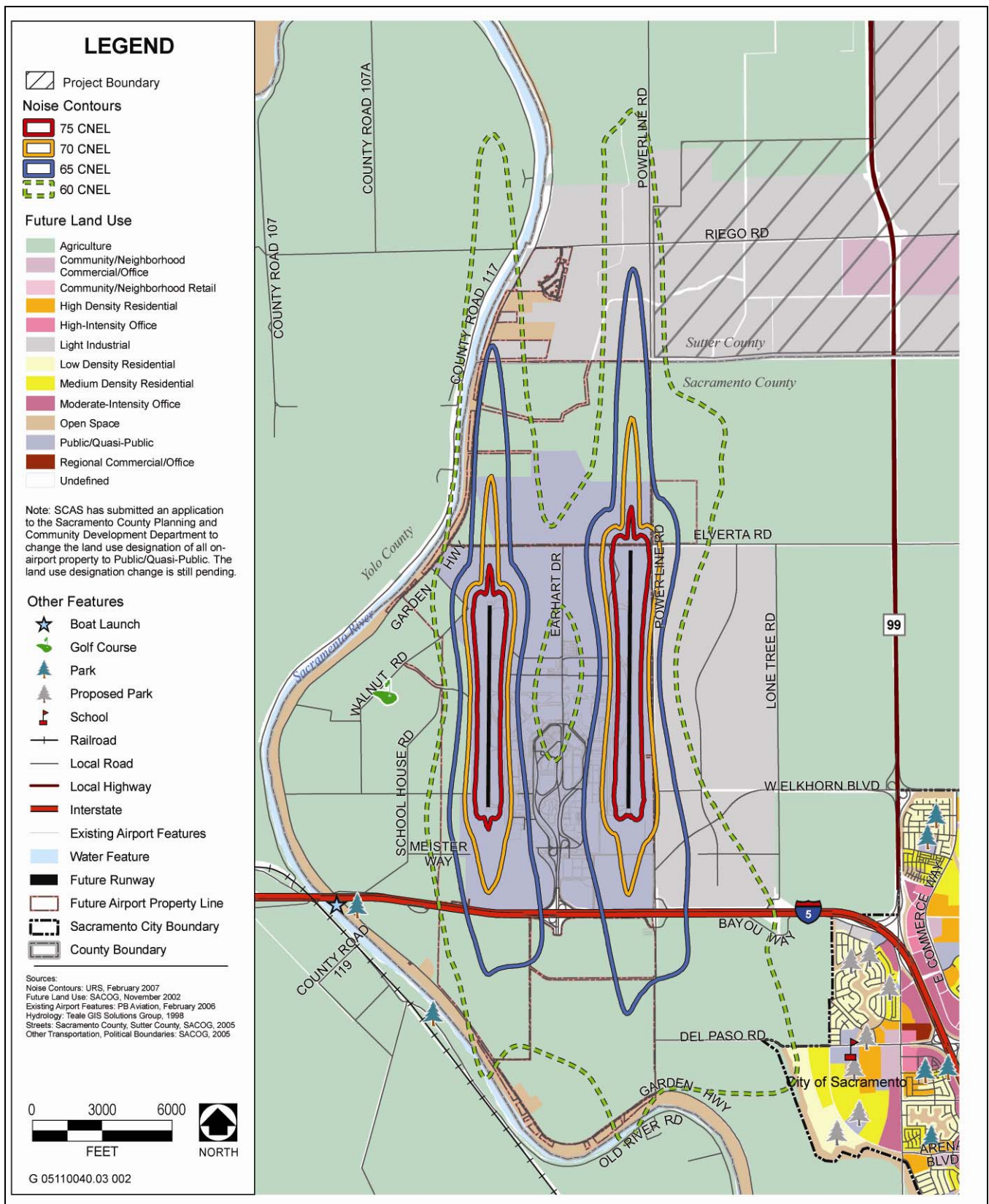
Existing Aircraft Noise Contours

Exhibit 3.5-2

Page 3.5-21 is revised as shown below:

As indicated on Exhibit 3.5-2, portions of the project site are located within the modeled 60 dB CNEL noise level contours under the existing ~~master plan~~ conditions, as presented in the current CLUP. Furthermore, Sacramento County recently adopted the Sacramento International Airport Master Plan, which proposes a 2,400 foot extension of the existing northern terminus of runway 34R/16L. The Final Environmental impact report prepared for the Sacramento International Airport Master Plan contains aircraft noise contours for future 2020 conditions incorporating the “all north” runway extension. The Master Plan all north extension aircraft noise contours are presented in Exhibit 3.5-4, additionally the theoretical maximum capacity aircraft noise contours are included in Exhibit 3.5-5. As indicated in Exhibit 3.5-4, the Master Plan aircraft noise contours encompass a marginally larger portion of the project site within the 60 dB CNEL noise level contour in comparison to the existing CLUP contours, with a similar area of the project site ~~located~~ within the 60 dB CNEL noise level contours under the theoretical capacity predicted with the inclusion of the northerly runway extension.

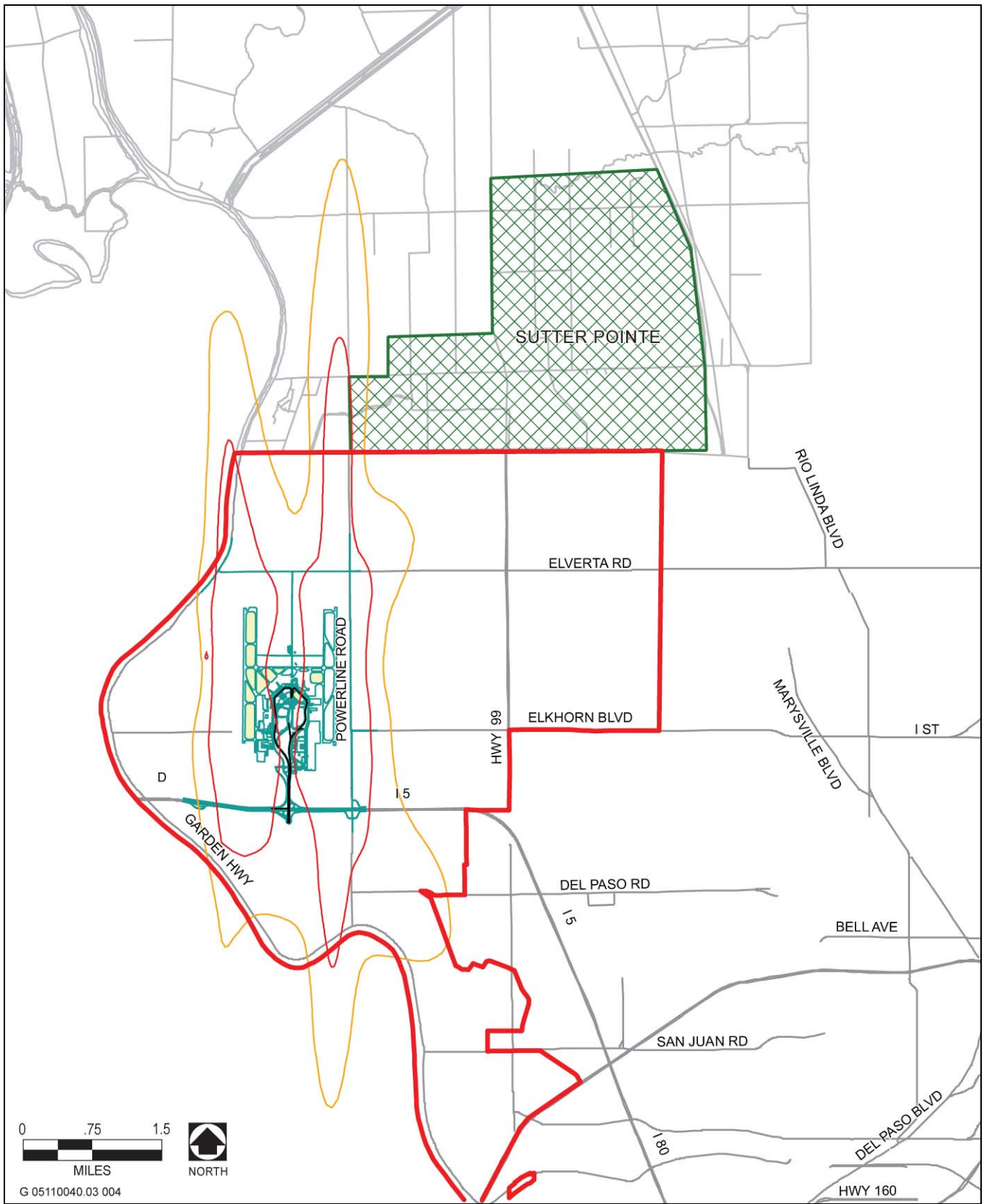
The 60 dB CNEL aircraft noise contours contained in the existing CLUP, the Master Plan EIR and the theoretical maximum capacity noise contours all encompass a portion of the project site; however, the noise contours do not include or encroach on any noise-sensitive development areas proposed on the project site.



Source:

**Sacramento International Airport Master Plan
 "All North" Runway Extension Aircraft Noise Contours**

Exhibit 3.5-4



Source:

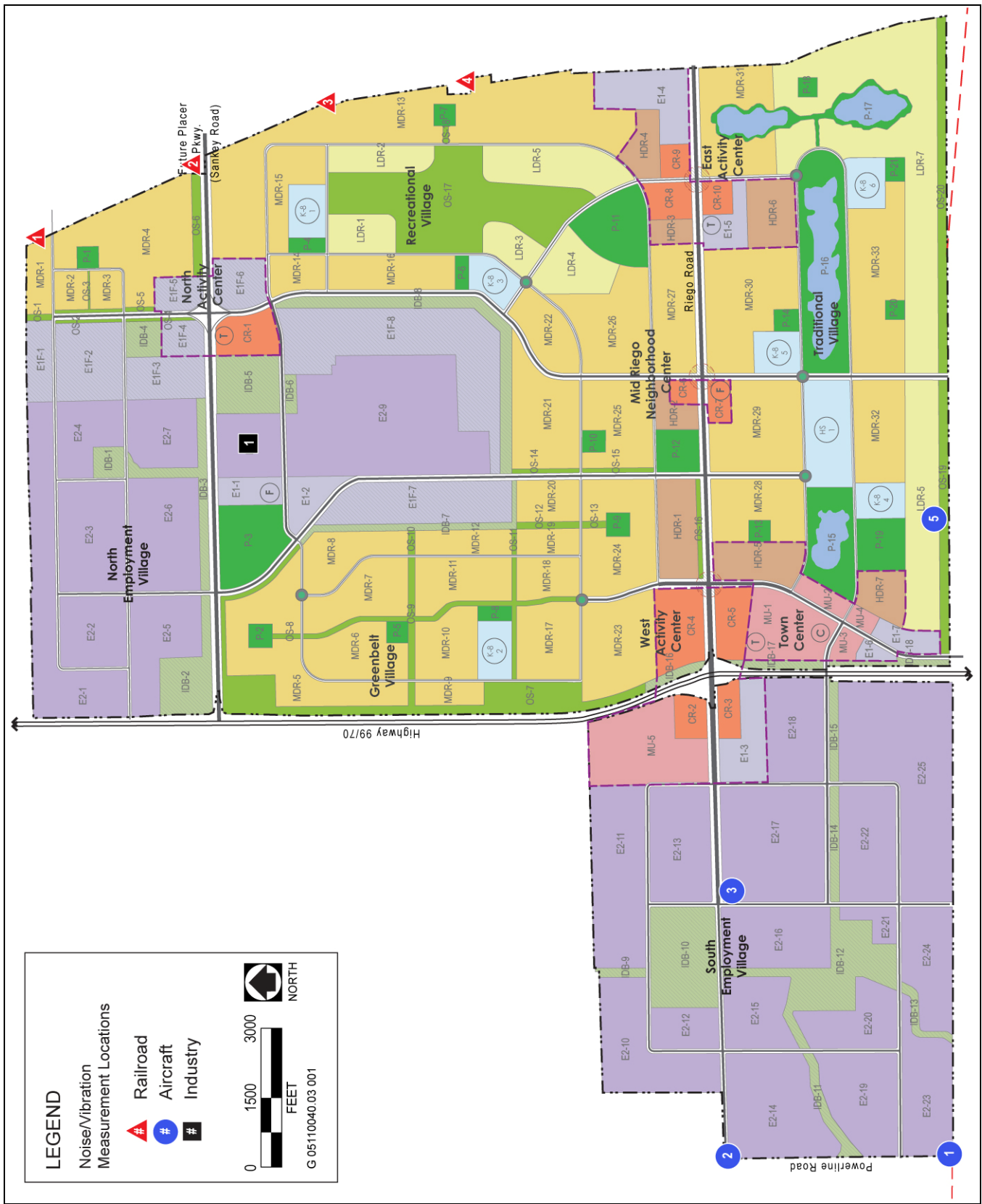
Sacramento International Airport Theoretical Capacity Noise Contours

Exhibit 3.5-5

Although the majority of the project site is unaffected by the aircraft noise contours shown on Exhibit 3.5-2, BAC conducted SEL measurements at 4 locations within the project site on August 22, 2007. Furthermore, EDAW conducted short-term and continuous noise monitoring and SEL measurements at 2 locations from April 11, 2009 to April 14, 2009. The SEL measurements were ~~for~~ subsequently analyzed ~~to~~ for potential impacts associated with speech interference and sleep disturbance due to aircraft arrivals, departures and overflights. The Sacramento International Airport operates in two modes, north flow and south flow. The mode of operation is dependent primarily on wind direction and meteorological conditions, as interpreted by air traffic control tower and the tower manager. During the August 22, 2007 measurement period the airport was operated in south flow. During the April 11, 2009 through April 14, 2009 measurement period the airport operated in both north and south flow. A flight track and penetration gate analysis conducted by the Sacramento County Airport System Aircraft Noise Information Office indicates that a greater number of aircraft operating under high power settings would occur over the proposed noise-sensitive areas during north flow conditions resulting in more substantial aircraft noise levels on the project site. This is attributed to a large number of departures executing course reversal turns over the project area and the lower altitudes which are inherent to northern departures. As such, the subsequent noise monitoring conducted during April 2009 focuses on north flow airport operations. The noise measurement locations are shown on Exhibit 3.5-3, and ~~the~~ a summary of the monitoring results are provided in Tables 3.5-17 and 3.5-18, for south and north flow conditions respectively.

In addition to commercial, cargo and general aviation aircraft which are operated at Sacramento International Airport, the airport is used on a routine basis by the military for training purposes. Military aircraft most common to the airport include cargo aircraft (i.e., C-5A and C-130), refueling and transport aircraft (i.e., KC-10 and KC -135) which originate primarily from Travis Air Force Base. Additionally, the supersonic jet trainer T-38, and the high altitude surveillance aircraft U-2 utilize the airports facilities, originating from Beale Air Force Base. Sacramento County maintains a Memorandum of Understanding (MOU) with the military stating that training operations will only conducted from 7:00 a.m. to 7:00 p.m. Monday through Friday; however, these restrictions are non-binding and the military conducts additional flight operations as necessary to maintain combat readiness. Due to the nature of the military flight operations, such as their highly variable flight paths and operational altitude, along with the preclusion of military aircraft from the noise related design criteria commercial aircraft are subject to, military aircraft generally generate louder SEL events. Travis Air Force Base has currently restricted their use of the Sacramento International Airport for training purposes during the construction phase of the new Terminal B (Taylor, pers. comm., 2009). Flight operations originating from Beale Air Force Base (i.e., T-38 and U-2) will use the airport occasionally; however, Mather Airport is preferred due to traffic conditions at Sacramento International. As such, during the periods of aircraft noise monitoring conducted for this project no specific operations of military aircraft were able to be captured.

Table 3.5-17				
Sacramento International Airport Measurement Results (August 22, 2007)				
<u>South Flow Airport Operation</u>				
Site ¹	Time of Day	Number of Aircraft Measured	Average SEL, dB	Measured L _{max} , dB
1	9:00	6	84	77
2	10:00	6	83	78
3	11:00	6	66	58
4	13:00	⁻²	⁻²	⁻²
Notes:				
¹ See Exhibit 3.5-3 for noise measurement locations.				
² Highway 99 traffic was dominant noise source. Could not measure SEL.				
Source: BAC 2008				



Source: Adapted by EDAW 2008

Noise/Vibration Measurement Locations

Exhibit 3.5-3

Table 3.5-18				
Sacramento International Airport Measurement Results				
North Flow Airport Operations Only				
<u>Site¹</u>	<u>Date¹</u>	<u>Number of Aircraft Measured</u>	<u>Average SEL, dB</u>	<u>Measured L_{max}, dB</u>
<u>1</u>	<u>April 11, 2009</u>	<u>81</u>	<u>85.6</u>	<u>86.4</u>
<u>1</u>	<u>April 12, 2009</u>	<u>24</u>	<u>86.4</u>	<u>82.4</u>
<u>1</u>	<u>April 13, 2009</u>	<u>37</u>	<u>87.1</u>	<u>83.4</u>
<u>5</u>	<u>April 13, 2009</u>	<u>11</u>	<u>79.7</u>	<u>77.1</u>
<u>5</u>	<u>April 14, 2009</u>	<u>15</u>	<u>79.4</u>	<u>74.2</u>
<u>Notes:</u>				
¹ See Exhibit 3.5-3 for noise measurement locations.				
² Airport operated in both north and south flows during the measurement period. Data presented represents only north flow operations.				
Source: EDAW 2009				

Page 3.5-24 is revised as shown below:

Aircraft

As mentioned in the setting section, portions of the project site are located within the Sacramento International Airport 60 dB CNEL noise level contours. Significant noise impacts are identified for this project if aircraft noise levels in terms of CNEL would exceed the Sutter County noise standards (See **Table 8**) at noise-sensitive land uses proposed within the SPSP Area, or if Sound Exposure Levels (SEL) associated with ~~Single single Events events~~ would exceed ~~65-80~~ dB inside any habitable room with windows in their closed position.

Page 3.5-25, last two bullets are revised as shown below:

- ▶ Exposure of people residing or working in the area to excessive noise levels from railroad and aircraft, including single event noise incidents that would result in speech interference or disturb sleep. The thresholds used herein for ~~speech and sleep interference are 60 dB SEL and is 780 dB SEL,~~ respectively.
- ▶ Exposure of people attending schools or working in schools to excessive noise levels from railroad and aircraft, including single event noise incidents that would result in speech interference. The County standards applied to school uses is 45 dB L_{eq} within classrooms (Table 3.5-4) ~~and the recommended threshold used herein for speech interference is 60 dB SEL.~~

Page 3.5-26, last two bullets are revised as shown below:

On-Site Elements

Portions of the project site are located within the Sacramento International Airport 60 dB CNEL noise level contours. Significant noise impacts are identified for this project if aircraft noise levels in terms of CNEL would exceed the Sutter County noise standards (Table 3.5-4) at noise-sensitive land uses proposed on the project site, ~~or if Sound Exposure Levels (SEL) associated with Single Events would exceed 70 dB inside any habitable room with windows in their closed position.~~

On-Site Elements

Because of the distance between proposed noise-sensitive land uses and the flight paths of Sacramento International Airport, it is unlikely that aircraft operations would have an appreciable effect on the proposed project. As previously noted, the Sacramento International Airport conducts aircraft arrivals and departures in two operational modes: north flow and south flow. During north flow operations, which occur approximately 25% of the year, aircraft departures utilize runways 34L/34R with a large portion of those departures making an immediate course reversal passing directly over the project site. Because of the high power levels, low take-off altitudes, and course reversals that occur over the project site, the north flow operational mode results in increased noise levels, as compared to south flow conditions. However, prevailing wind conditions result in south flow operational conditions occur approximately 75% of the year. For the proposed project, single event noise levels from aircraft overflights were analyzed for both north and south flow operational conditions based on aircraft SEL data collected at two locations on the project site. Additional analysis of north flow operational conditions was conducted through computerized aircraft noise modeling.

Recorded deed notices will be required ~~in areas affected by aircraft over flights for all residential parcels on the project site~~ to ensure that initial and subsequent prospective buyers, lessees, and renters of property on the project site, particularly residential property, are informed that the project site is subject to routine overflights and associated noise by aircraft from Sacramento International Airport, that the frequency of aircraft overflights is routine and that aircraft events can be expected to increase through the year 2020 and beyond in accordance with the Sacramento International Airport Master Plan, and that ~~such aircraft overflights could cause occasional speech interference, increased potential for sleep disruption that could affect more than 10% of all residents at any one time,~~ and other annoyances associated with exposure to aircraft noise.

The recorded deed notices would not change the noise environment; however, they would notify people with above-average sensitivity to aircraft overflights (as well as all other prospective residents)—people who are highly annoyed by overflights—that they are choosing to live in a location where such activities frequently occur. This strategy involves making people more aware of an airport’s proximity and current and future potential noise exposure before prospective buyers, lessees, and tenants move to the project site.

Table 3.5-17 indicates that the measured aircraft SEL at test location Site 3 on Exhibit 3.5-3 was ~~66 dB~~ 66 dB during south flow airport operations. This site is approximately 2,000 feet west of the nearest residential and school uses on the project site (Mixed Use are at northwest quadrant of the Highway 99 / Riego Road interchange). It should be noted that attempts were made to quantify aircraft ~~Single single Event event~~ noise closer to the proposed mixed-use and school site, but aircraft noise levels were too low to be measurable over background freeway (SR 99) noise levels at that location. However, because of the increased distance to the airport from where the 66 dB SEL value was measured, exterior SEL values at the nearest proposed school and residential sites are expected to be less than 60 dB. Because standard residential and school construction would provide at least a 25 dB noise reduction with windows closed, an exterior SEL of approximately 60 would be reduced to 35 dB within residences and classrooms, during south flow airport operations. This level is well below the recommended ~~70-80 dB SEL sleep disturbance and 60 dB SEL speech interference~~ thresholds of significance for findings of noise impacts because of single events. Based on measured SEL noise level, no adverse noise impacts are identified during south flow conditions. ~~As a result, this impact is considered less than significant~~

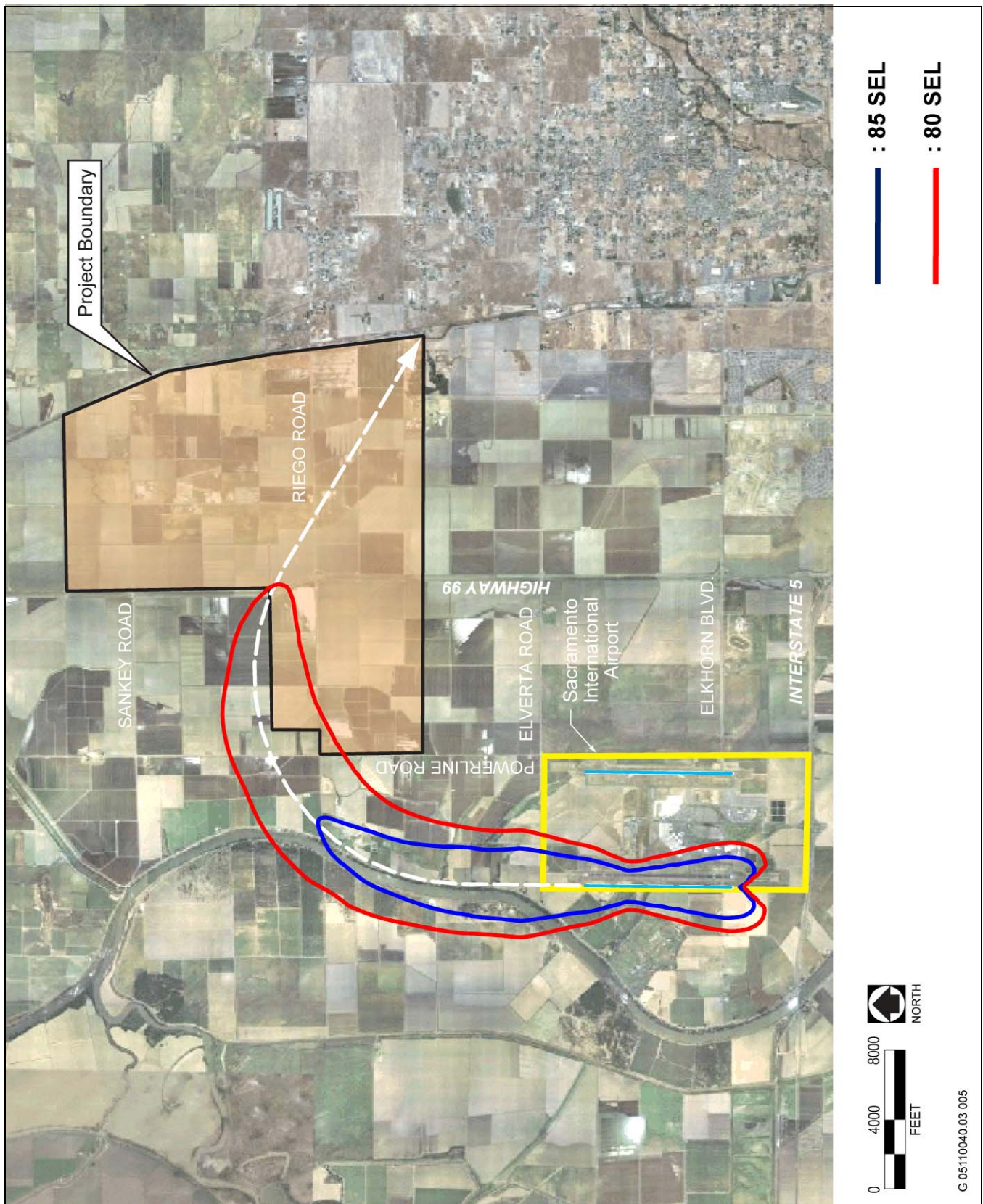
Aircraft measurement location 5, as shown on Exhibit 3.5-3 represents the low density residential located on the southern portion of the project site. Additionally, this location is routinely exposed to aircraft

overflights during both north and south flow airport operational procedures. Aircraft noise measurement location 5 provides further characterization of aircraft noise levels that would be experienced during north flow conditions, when aircraft overflights would be operating under high power settings at lower altitudes. As shown in Table 3.5-18, average measured aircraft SELs at measurement site 5 were 79.7 dB and 79.4 dB SEL on April 13, 2009 and April 14, 2009 respectively. Because standard residential construction would provide at least a 25 dB noise reduction with windows closed, an exterior SEL of approximately 80 dB would be reduced to 55 dB SEL within residences. This level is well below the recommended 80 dB SEL interior sleep disturbance threshold of significance for noise impacts due to single events. Based on measured SEL noise level, no adverse noise impacts are identified during north flow conditions.

The SELs associated with a variety of aircraft types were modeled for typical north flow flight tracks and runway usage with the Federal Aviation Administration Integrated Noise Model (INM) Version 6.2a. The aircraft noise assessment included consideration of the northern extension of the existing runways recently adopted by the Sacramento County Board of Supervisors. Inputs to INM were based on information from the Sacramento County Airport System (SCAS) WebTrak software, the SCAS web-accessible aircraft flight tracking system, which was used to determine flight tracks, and aircraft fleet mix. Modeling assumptions were derived from observations of WebTrak data for March 5, 2009, on which the airport was operating in a north flow configurations, utilizing runways 34L and 34R. Average modeled aircraft SELs at noise-sensitive land uses determined as most potentially affected (mixed-use area located northwest of Riego Road and Highway 99) were 81.2 dB SEL. Thus the results of the assessment indicate that, during the relatively infrequent northern departure conditions, SEL values within residences would be well below the project threshold of significance of 80 dB SEL for sleep disturbance. Based on modeled SEL noise level, no adverse noise impacts are identified during north flow conditions. Modeled SEL contours for typical aircraft operations at Sacramento International Airport are presented in Exhibit 3.5-6 and 3.5-7.

Military Operations

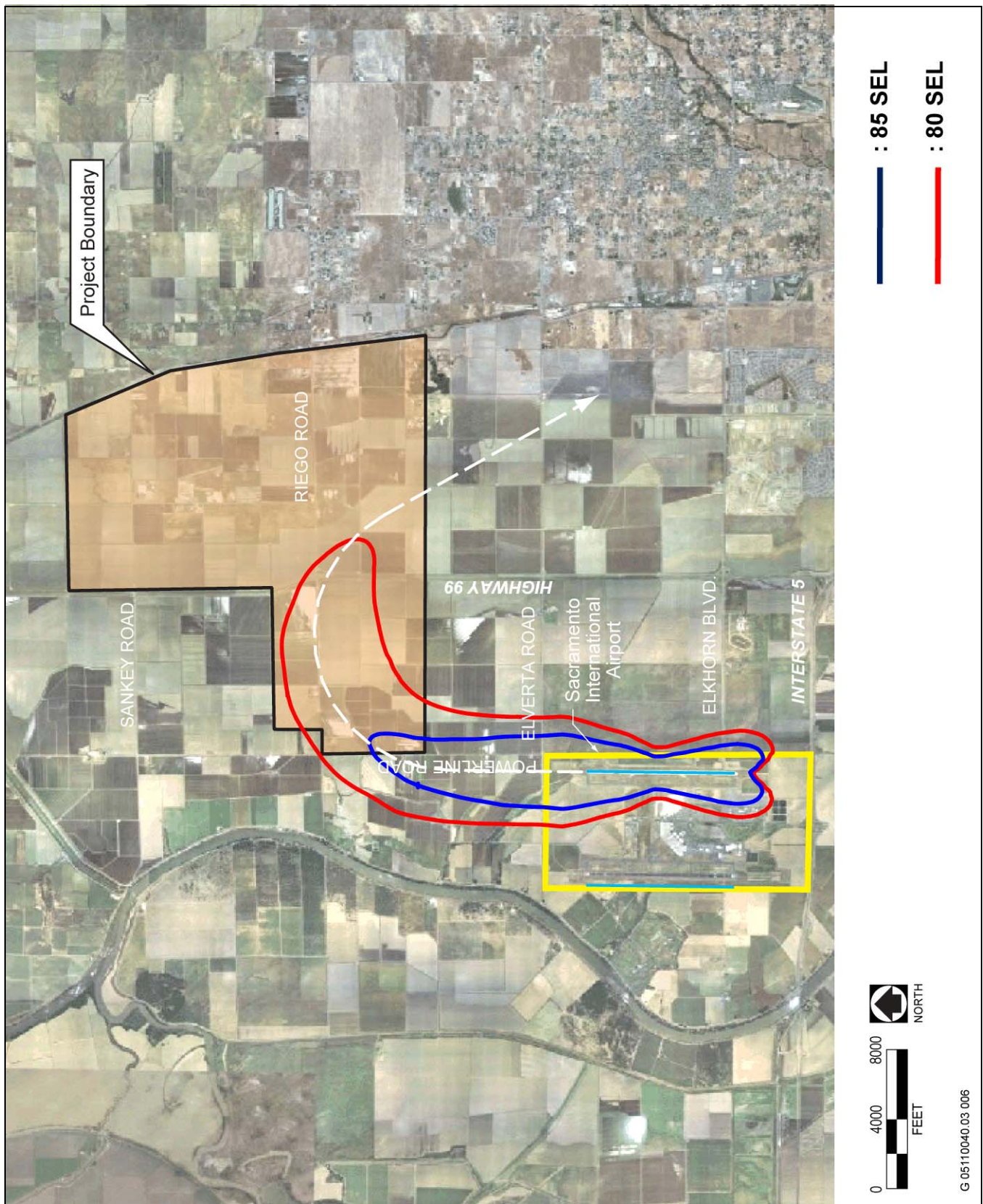
As previously noted, Sacramento International Airport is routinely utilized for military training purposes. Aircraft predominately conducting operations at the facilities include the C-5A, C-17, C-130, KC-10, and KC-135 out of Travis AFB and the T-38, and U-2 out of Beale AFB. Site specific noise measurements of military aircraft conducting training operations were not able to be obtained during the aircraft noise monitoring conducted for this analysis. Therefore, the United States Air Force Flyover Noise Calculator was employed to determine SELs generated from military aircraft operations at Sacramento International Airport and over the project site. Based on information provided by SCAS Department of Planning and Environment, recent military aircraft operations were limited to T-38 jet training aircraft out of Beale AFB, which were conducting touch and go exercises at Sacramento International. Aircraft overflights of the project site were generally associated with aircraft in route between Beale AFB and Sacramento International Airport. Aircraft altitude ranged from 2,100 feet to 3,400 feet with an average altitude associated with the overflights of approximately 3,000 feet. On comparison of predicted SEL noise levels to reference noise levels collected for commercial and military aircraft, the intermediate power profiles in the Flyover Noise Calculation model were found to provide the greatest correlation while remaining conservative. The results of the Flyover Noise Calculator for the typical military aircraft utilizing the Sacramento International Airport and respective ground level noise levels are presented in Table 3.5-19.



Source: Bollard Acoustical Consultants with Integrated Noise Model (INM6.2); Adapted by EDAW 2008

Predicted Typical Single Event Noise Levels (SEL), North Flow Conditions

Exhibit 3.5-6



Source: Bollard Acoustical Consultants with Integrated Noise Model (INM6.2); Adapted by EDAW 2008

Predicted Typical Single Event Noise Levels (SEL), North Flow Conditions

Exhibit 3.5-7

Based on the results of the military aircraft overflight noise modeling, as shown in Table 3.5-19, military aircraft overflights at the residential areas of the Sutter Pointe Specific Plan project site would be exposed to SEL noise levels ranging from 80 dB to 98 dB SEL under intermediate power levels, and 83 dB to 101 dB SEL under take-off power levels. Assuming standard residential construction would provide at least a 25 dB noise reduction with windows closed, an exterior SEL of approximately 101 dB would be reduced to 76 dB SEL within residences. This level is below the recommended 80 dB SEL interior sleep disturbance threshold of significance for noise impacts due to single events. Based on measured SEL noise level, no adverse noise impacts are identified in association with typical operations of military aircraft in the vicinity of the project site.

Table 3.5-19 Military Aircraft Sound Exposure Levels		
<u>Aircraft</u>	<u>Noise Level, dB SEL</u>	
	<u>3,000 feet AGL¹</u>	
	<u>Intermediate Power²</u>	<u>Take-Off Power³</u>
<u>C-5A</u>	<u>98</u>	<u>101</u>
<u>C-17</u>	<u>82</u>	<u>92</u>
<u>C-130</u>	<u>80</u>	<u>83</u>
<u>KC-10</u>	<u>83</u>	<u>89</u>
<u>KC-135</u>	<u>81</u>	<u>83</u>
<u>T-38</u>	<u>80</u>	<u>92</u>
<u>U-2</u>	<u>85</u>	<u>97</u>

¹ - Average altitude of military aircraft overflights at the project site.
² - USAF Flyover Noise Calculator aircraft power setting profile which provides best correlation with reference noise measurements of commercial and military aircraft.
³ - USAF Flyover Noise Calculator aircraft power setting profile which provides most conservative analysis.
Notes: dB – A-Weighted decibel; SEL (Sound Exposure Level) - the cumulative acoustical energy of a single event normalized to a one second period.
Source: Data modeled by EDAW 2009

Single-event SEL noise levels are predicted to be below the project thresholds of significance at noise-sensitive areas during both north and south flow conditions, including noise generated by heavier aircraft which could utilize the airport following 2,400 foot all north extension of runway 34R/16L as proposed in the Master Plan EIR. Furthermore, single-event noise levels associated with typical operation of military aircraft in the project vicinity are predicted to be below the project thresholds of significance at noise-sensitive areas on the project site. As a result, this impact is considered **less than significant**.

Pages 3.5-28 and 2.5-29 are revised as follows

On-Site Elements

Recorded deed notices will be required in areas affected by railroad pass-bys to ensure that initial and subsequent prospective buyers, lessees, and renters of property on the project site, particularly residential property, are informed that the project site is subject to routine train passages, that the frequency of such passages is routine and may increase through the year 2020 and beyond, and that such passages could cause occasional speech interference, sleep disruption, and other annoyances associated with exposure to railroad noise.

The recorded deed notices would not change the noise environment; however, they would notify people with above-average sensitivity to train passages (as well as all other prospective residents)—people who are highly annoyed by train passages—that they are choosing to live in a location where such activities frequently occur. This strategy involves making people more aware of the railroad’s proximity and current and future potential noise exposure before prospective buyers, lessees, and tenants move to the project site.

Based on the existing noise level measurements discussed earlier in the setting section, railroad noise impacts are considered significant where railroad noise levels would exceed the Sutter County noise standards shown in Table 3.5-4, or where SEL would exceed the recommended sleep interference criterion of ~~70-80~~ dB within residences. Data in Table 3.5-15 provide the distances to the critical noise contours for locations within the project site affected by railroad noise, including areas both affected by warning horn noise and those unaffected by warning horn noise.

The data in Table 3.5-15 indicate that the 60 dB L_{dn} contours for UPRR operations extend approximately ~~600-700~~ feet from the tracks at locations beyond ¼ mile from at-grade crossings, and approximately ~~1,200~~ 500 feet from the tracks at locations within ¼ mile of an at-grade crossing. Table 3.5-15 also provides distances to the ~~105-95~~ dB SEL contours. The reason for the difference in distances to contours is that trains are required to sound their horns when approaching at-grade crossings, and the area of impact of the horns is effectively ¼ mile. The ~~9105~~ dB SEL contour distances are provided ~~because this line~~ to represents the locations within which interior SEL values could exceed the ~~780~~ dB SEL sleep disturbance threshold (assuming 25 dB building façade noise reduction with windows closed).

Mitigation Measure 3.5-3: Prepare an Acoustical Study for any Sensitive Uses within the 60 dB L_{dn} Contour of the UPRR Operations.

On-Site Elements

The project applicant shall prepare an acoustical analysis of proposed site plans, construction plans, and building materials for any residential uses proposed within the 60 dB L_{dn} contours shown in Table 3.5-15. The applicant shall ensure that adequate noise insulation features are included in the project design to reduce exterior noise levels to 60 dB L_{dn} at primary outdoor activity areas and interior noise levels within habitable rooms to 45 dB L_{dn} and ~~70-80~~ dB SEL.

The appropriate exterior noise mitigation would depend on the type of residential product proposed (i.e., what form would the outdoor activity areas take), proximity of the outdoor space to an at-grade crossing, and the ultimate elevation of the outdoor spaces relative to the railroad tracks.

If a primary outdoor activity area is proposed approximately 150 feet from the railroad tracks, Table 3.5-15 indicates that the exterior noise exposure at that location would be approximately ~~70~~ dB or 75 dB L_{dn} , depending on whether or not the site is affected by warning horn usage. As such, a ~~10~~ dB to 15 dB exterior noise level reduction would be required to achieve ~~satisfaction~~ compliance with the Sutter County’s 60 dB L_{dn} exterior noise level standard (the County may permit exterior noise levels up to 65 dB L_{dn} in cases where 60 dB L_{dn} cannot be achieved through a practical application of the best available noise reduction technology). A 10 to 15 dB in railroad noise through the construction of noise barriers alone is very difficult to achieve, as the effective noise source height for railroad sources is placed 10 feet above the tracks for noise barrier calculations. As a result, outdoor activity areas should be set back from the railroad tracks the maximum extent practical, and shielded by intervening residential structures or solid noise barriers to accomplish the necessary attenuation. While it is feasible to mitigate exterior railroad noise exposure at the project site to a state of compliance with the County noise standards, more detailed recommendations for exterior noise mitigation measures cannot be provided until more detailed site and grading plans are available.

Interior noise mitigation would also depend on proximity of the habitable room to the tracks and whether the residential structure is affected by warning horn noise. If residences are proposed as close as 150 feet from the railroad tracks near a grade crossing, approximately 30 dB of building facade noise reduction would be required to achieve satisfaction with the 45 dB L_{dn} interior noise level standard of Sutter County, and ~~34-24~~ dB of building façade attenuation would be required to reduce interior SEL values to ~~70-80~~ dB or less. The design to achieve this degree of attenuation shall be specified in the prepared acoustical analysis and likely would take the form of upgraded windows and more massive construction of building walls. Such measures are feasible in noise environments up to 75 dB L_{dn}, but more specific measures for mitigating interior noise levels cannot be developed until site and building plans are available.

Off-Site Elements

No mitigation measures are required.

Implementation: Project applicant(s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-3 noise emanating from UPRR operations would be reduced to levels within the applicable county standard and recommended interior sleep ~~disturbance/interference~~ levels by requiring the implementation of design features determined by the independent acoustical analysis. As a result, this impact would be **less than significant**.

Page 3.5-30 is revised as shown below:

On-Site Elements

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Although construction within the project area is not likely to affect existing noise-sensitive land uses off-site, new residences constructed within the project site would be occupied while construction is still ongoing, and those residents could be affected by construction noise. Activities involved in construction would generate maximum noise levels, as indicated in Table 3.5-~~18~~20, ranging from 85 dB to 90 dB at a distance of 50 feet. Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. Although buildout of the project area would take 20-30 years, this noise increase would be of relatively short duration in any one area. As a result, the duration of time any given residence would be exposed to ongoing construction in the same neighborhood would be limited despite the overall length of project buildout. In addition, construction activities would likely occur primarily during daytime hours. For this project, construction noise impacts are identified if construction activities would occur in close proximity to noise-sensitive receptors (residences) during nighttime hours. During daytime hours, it is recognized that there is decreased sensitivity to noise and that construction activities are temporary.

Activities associated with construction would typically generate maximum noise levels ranging from 85 dB to 90 dB at a distance of 50 feet. However, because construction activities would be temporary in nature and would typically occur during normal daytime working hours, significant adverse public reaction to construction noise is not anticipated. Nonetheless, because construction activities could result

in periods of elevated noise levels, and because construction activities could occur at night, this impact is considered **significant**.

Off-Site Elements

Activities associated with construction of off-site utilities would typically generate maximum noise levels ranging from 85 ~~dB to~~ 90 dB at a distance of 50 feet (see Table 3.5-~~18~~20). However, because construction activities would be temporary in nature and would occur during normal daytime working hours, significant adverse public reaction to construction noise is not anticipated. Noise-sensitive receptors could potentially be affected by adjacent construction activities where new off-site infrastructure is installed. As a result, because construction activities could create periods of elevated noise levels and occur at night adjacent to noise-sensitive receptors, this impact is considered **significant**.

Page 3.5-31 is revised as shown below:

Table 3.5-~~18~~20 Construction Equipment Noise

Mitigation Measure 3.5-5b: Construction activities taking place in Placer and Sacramento Counties shall adhere to the applicable Counties ordinances and regulations regarding construction activity hours of operation.

Page 3.5-33 is revised as shown below:

On-Site Elements

Noise-producing aspects of certain land uses developed within the Plan Area such as industry, commercial loading docks, school playing fields, etc, could generate elevated noise levels in the vicinity of proposed noise-sensitive land uses. Commercial loading docks and elementary school playgrounds typically generate average noise levels of 55 ~~dB to~~ 60 dB L_{eq} , and maximum levels of 75 ~~dB to~~ 80 dB L_{max} at a distance of 100 feet from the source. If constructed immediately adjacent to residential uses, the Sutter County noise level performance standards could be exceeded (Table 3.5-2). The project has generally been designed with buffers in the form of large setbacks between the most noise-producing and noise-sensitive types of land uses, which would greatly reduce the potential for incompatible land uses with respect to noise. Nonetheless, because noise associated with these types of uses could exceed applicable Sutter County noise limits at noise-sensitive areas, this impact is considered **potentially significant**.

Off-Site Elements

Typically utility infrastructure does not create noise; however, hubs that act as distribution centers of particular utilities can create additional noise. Proposed pumping and transfer stations, without proper noise control or enclosure, could result in noise levels reaching approximately 100 dBA at 3–5 feet from the source depending on the exact type and size (EPA 1971). Based on this equipment noise level the operation of on-site stationary equipment could result in an exterior noise level that exceeds applicable county standards. Such equipment would likely be housed in buildings, enclosed, and/or equipped with interior sound insulation that may result in

Page 3.5-36 is revised as shown below:

Development on the project site will result in changes in traffic on the existing roadway network. Relative to existing traffic noise levels within the project site, the increases in traffic noise levels on project-area roadways are predicted to range from 0 to 16 dB L_{dn} , as shown in Table 3.5-~~19~~21.

Table 3.5-1921
Traffic Noise Levels (Project Buildout)

Page 3.5-38 is revised as shown below:

Pursuant to the significance criteria, as defined in Table 3.5-12, a substantial increase in traffic noise levels is defined as 1.5 ~~dB~~ to 5 dB, depending on the pre-project traffic noise level. Because of the relatively large change in overall trip generation associated with the project, traffic noise along 19 roadway segments is predicted to exceed the standards of significance.

Page 3.5-40 is revised as shown below:

IMPACT Exposure of Residential and School Uses Developed on the Project Site to Excessive Single-
3.5-12 Event Noise from Sacramento International Airport Operations.

Because of the distance between proposed noise-sensitive land uses and the flight paths of Sacramento International Airport, it is unlikely that aircraft operations would have an appreciable effect on the development. As previously noted, the Sacramento International Airport conducts aircraft arrivals and departures in two operational modes, north flow and south flow. During north flow operations, which occurs approximately 25% of the year, aircraft departures utilize runways 34L/34R with a large portion of those departures making an immediate course reversal passing directly over the project site. Because of the high power levels, low take-off altitudes and course reversals that occur over the project site, the north flow operational mode results in increased noise levels, in respect to south flow conditions. However, prevailing wind conditions result in south flow operational conditions occur approximately 75 % of the year. For this project, single event noise levels from aircraft overflights will be analyzed for both north and south flow operational conditions based on aircraft SEL data collected at 2 locations on the project site. Additional analysis of north flow operational conditions was conducted through computerized aircraft noise modeling.

Recorded deed notices will be required for all residential parcels on the project site in areas affected by aircraft over flights to ensure that initial and subsequent prospective buyers, lessees, and renters of property on the project site, ~~particularly residential property,~~ are informed that the project site is subject to routine overflights and associated noise by aircraft from Sacramento International Airport, that the frequency of aircraft overflights is routine and that aircraft events can be expected to increase through the year 2020 and beyond in accordance with the Sacramento International Airport Master Plan, and that aircraft such overflights could cause occasional speech interference, increased potential for sleep disruption that could affect more than 10% of all residents at any one time, and other annoyances associated with exposure to aircraft noise.

The recorded deed notices would not change the noise environment; however, they would notify people with above-average sensitivity to aircraft overflights (as well as all other prospective residents)—people who are highly annoyed by overflights—that they are choosing to live in a location where such activities frequently occur. This strategy involves making people more aware of an airport’s proximity and current and future potential noise exposure before prospective buyers, lessees, and tenants move to the project site.

Table 3.5-17 indicates that the measured aircraft SEL at test location Site 3 on Exhibit 3.5-3 was ~~66 dB~~ 66 dB ~~during south flow airport operations.~~ This site is approximately 2,000 feet west of the nearest residential and school uses on the project site (Mixed Use are at northwest quadrant of the Highway 99 / Riego Road interchange). It should be noted that attempts were made to quantify aircraft ~~single event~~ Single Event noise closer to the proposed mixed-use and school site, but aircraft noise levels were too low to be measurable over background freeway (SR 99) noise levels at that location. However, because of the

increased distance to the airport from where the 66 dB SEL value was measured, exterior SEL values at the nearest proposed school and residential sites are expected to be less than 60 dB. Because standard residential and school construction would provide at least a 25 dB noise reduction with windows closed, an exterior SEL of approximately 60 would be reduced to 35 dB within residences and classrooms, during south flow airport operations. This level is well below the recommended 70-80 dB SEL sleep disturbance and 60 dB SEL speech interference thresholds of significance for findings of noise impacts because of single events. Based on measured SEL noise level, no adverse noise impacts are identified during south flow conditions.~~As a result, this impact is considered less than significant.~~

Aircraft measurement location 5, as shown on Exhibit 3.5-3 represents the low density residential located on the southern portion of the project site. Additionally, this location is routinely exposed to aircraft overflights during both north and south flow airport operational procedures. Aircraft noise measurement location 5 provides further characterization of aircraft noise levels that would be experienced during north flow conditions, when aircraft overflights would be operating under high power settings at lower altitudes. As shown in Table 3.5-18, average measured aircraft SELs at measurement site 5 were 79.7 dB and 79.4 dB SEL on April 13, 2009 and April 14, 2009 respectively. Because standard residential construction would provide at least a 25 dB noise reduction with windows closed, an exterior SEL of approximately 80 dB would be reduced to 55 dB SEL within residences. This level is well below the recommended 80 dB SEL interior sleep disturbance threshold of significance for noise impacts due to single events. Based on measured SEL noise level, no adverse noise impacts are identified during north flow conditions.

The SELs associated with a variety of aircraft types were modeled for typical north flow flight tracks and runway usage with the Federal Aviation Administration Integrated Noise Model (INM) Version 6.2a. The aircraft noise assessment included consideration of the northern extension of the existing runways recently adopted by the Sacramento County Board of Supervisors. Inputs to INM were based on information from the Sacramento County Airport System (SCAS) WebTrak software, the SCAS web-accessible aircraft flight tracking system, which was used to determine flight tracks, and aircraft fleet mix. Modeling assumptions were derived from observations of WebTrak data for March 5, 2009, on which the airport was operating in a north flow configurations, utilizing runways 34L and 34R. Average modeled aircraft SELs at noise-sensitive land uses determined as most potentially affected (mixed-use area located northwest of Riego Road and Highway 99) were 81.2 dB SEL. Thus the results of the assessment indicate that, during the relatively infrequent northern departure conditions, SEL values within residences would be well below the project threshold of significance of 80 dB SEL for sleep disturbance. Based on modeled SEL noise level, no adverse noise impacts are identified during north flow conditions. Modeled SEL contours for typical aircraft operations at Sacramento International Airport are presented in Exhibit 3.5-6.

Military Operations

As previously noted, Sacramento International Airport is routinely utilized for military training purposes. Aircraft predominately conducting operations at the facilities include the C-5A, C-17, C-130, KC-10, and KC-135 out of Travis AFB and the T-38, and U-2 out of Beale AFB. Site specific noise measurements of military aircraft conducting training operations were not able to be obtained during the aircraft noise monitoring conducted for this analysis. Therefore, the United States Air Force Flyover Noise Calculator was employed to determine SELs generated from military aircraft operations at Sacramento International Airport and over the project site. Based on information provided by SCAS Department of Planning and Environment, recent military aircraft operations were limited to T-38 jet training aircraft out of Beale AFB, which were conducting touch and go exercises at Sacramento International. Aircraft overflights of the project site were generally associated with aircraft in route between Beale AFB and Sacramento International Airport. Aircraft altitude ranged from 2,100 feet to 3,400 feet with an average altitude associated with the overflights of approximately 3,000 feet. On comparison of predicted SEL noise levels

to reference noise levels collected for commercial and military aircraft, the intermediate power profiles in the Flyover Noise Calculation model were found to provide the greatest correlation while remaining conservative. The results of the Flyover Noise Calculator for the typical military aircraft utilizing the Sacramento International Airport and respective ground level noise levels are presented in Table 3.5-19.

Based on the results of the military aircraft overflight noise modeling, as shown in Table 3.5-19, military aircraft overflights at the residential areas of the Sutter Pointe Specific Plan project site would be exposed to SEL noise levels ranging from 80 dB to 98 dB SEL under intermediate power levels, and 83 dB to 101 dB SEL under take-off power levels. Assuming standard residential construction would provide at least a 25 dB noise reduction with windows closed, an exterior SEL of approximately 101 dB would be reduced to 76 dB SEL within residences. This level is below the recommended 80 dB SEL interior sleep disturbance threshold of significance for noise impacts due to single events. Based on measured SEL noise level, no adverse noise impacts are identified in association with typical operations of military aircraft in the vicinity of the project site.

Single-event SEL noise levels are predicted to be below the project thresholds of significance at noise-sensitive areas during both north and south flow conditions, including noise generated by heavier aircraft which could utilize the airport following 2400 foot all north extension of runway 34R/16L as proposed in the Master Plan EIR. Furthermore, single-event noise levels associated with typical operation of military aircraft in the project vicinity are predicted to be below the project thresholds of significance at noise-sensitive areas on the project site. As a result, this impact is considered **less than significant**.

Page 3.5-41 is revised as shown below:

Based on the existing noise level measurements discussed earlier in the setting section, railroad noise impacts are considered significant where railroad noise levels would exceed the Sutter County noise standards shown in Table 3.5-4, or where SEL would exceed the recommended sleep interference criterion of ~~70~~ 80 dB within residences. Data in Table 3.5-15 provide the distances to the critical noise contours for locations within the project site affected by railroad noise, including areas both affected by warning horn noise and those unaffected by warning horn noise.

The data in Table 3.5-15 indicate that the 60 dB L_{dn} contours for UPRR operations extend approximately ~~7600~~ 1,5200 feet from the tracks at locations beyond ¼ mile from at-grade crossings, and approximately 1,5200 feet from the tracks at locations within ¼ mile of an at-grade crossing. Table 3.5-15 also provides distances to the ~~9105~~ 9105 dB SEL contours. The reason for the difference in distances to contours is that trains are required to sound their horns when approaching at-grade crossings, and the area of impact of the horns is effectively ¼ mile. The ~~9105~~ 9105 dB SEL contour distances are provided because this line represents the locations within which interior SEL values could exceed the ~~780~~ 780 dB SEL sleep disturbance threshold (assuming 25 dB building façade noise reduction with windows closed).

Page 3.5-42 is revised as shown below:

Mitigation Measure 3.5-13: Apply Mitigation Measure 3.5-3 – Require Acoustical Analyses for residential uses constructed within the 60 dB L_{dn} contours.

The project applicant shall prepare an acoustical analysis of proposed site plans, construction plans, and building materials for any residential uses proposed within the 60 dB L_{dn} contours shown in Table 3.5-15. The applicant shall ensure that adequate noise insulation features are included in the project design to reduce exterior noise levels to 60 dB L_{dn} at primary outdoor activity areas and interior noise levels within habitable rooms to 45 dB L_{dn} and 780 dB SEL.

The appropriate exterior noise mitigation would depend on the type of residential product proposed (i.e., what form would the outdoor activity areas take), proximity of the outdoor space to an at-grade crossing, and the ultimate elevation of the outdoor spaces relative to the railroad tracks.

If a primary outdoor activity area is proposed approximately 150 feet from the railroad tracks, Table 3.5-15 indicates that the exterior noise exposure at that location would be approximately 70 or 75 dB L_{dn} , depending on whether or not the site is affected by warning horn usage. As such, a 10 dB to 15 dB exterior noise level reduction would be required to achieve satisfaction with the County's 60 dB L_{dn} exterior noise level standard (the County may permit exterior noise levels up to 65 dB L_{dn} in cases where 60 dB L_{dn} cannot be achieved through a practical application of the best available noise reduction technology). A 10 to 15 dB in railroad noise through the construction of noise barriers alone is very difficult to achieve, as the effective noise source height for railroad sources is placed 10 feet above the tracks for noise barrier calculations. As a result, outdoor activity areas should be set back from the railroad tracks the maximum extent practical, and shielded by intervening residential structures or solid noise barriers to accomplish the necessary attenuation. While it is feasible to mitigate exterior railroad noise exposure at the project site to a state of compliance with the County noise standards, more detailed recommendations for exterior noise mitigation measures cannot be provided until more detailed site and grading plans are available.

Interior noise mitigation would also depend on proximity of the habitable room to the tracks and whether the residential structure is affected by warning horn noise. If residences are proposed as close as 150 feet from the railroad tracks near a grade crossing, approximately 30 dB of building facade noise reduction would be required to achieve satisfaction with the 45 dB L_{dn} interior noise level standard of Sutter County, and 32 dB of building façade attenuation would be required to reduce interior SEL values to 78 dB or less. The design to achieve this degree of attenuation shall be specified in the prepared acoustical analysis and likely would take the form of upgraded windows and more massive construction of building walls. Such measures are feasible in noise environments up to 75 dB L_{dn} , but more specific measures for mitigating interior noise levels cannot be developed until site and building plans are available.

Implementation: Project applicant(s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-3 noise emanating from UPRR operations would be reduced to levels within the applicable county standard and recommended interior sleep ~~interference~~ disturbance levels by requiring the implementation of design features determined by the independent acoustical analysis. As a result, this impact would be **less than significant**.

Page 3.5-45 is revised as shown below:

IMPACT 3.5-17	Exposure of Noise Sensitive Land Uses on the Project Site to noise Generated by New Commercial, Industrial, Recreation, School, Utilities, and Public Facility Uses.
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Noise-producing aspects of certain land uses developed within the Plan Area such as industry, commercial loading docks, school playing fields, etc, could generate elevated noise levels in the vicinity of proposed noise-sensitive land uses. Commercial loading docks and elementary school playgrounds typically generate average noise levels of 55 dB to -60 dB L_{eq} , and maximum levels of 75- dB to80 dB L_{max} at a distance of 100 feet from the source. If constructed immediately adjacent to residential uses, the

Sutter County noise level performance standards could be exceeded (Table 3.5-2). The project has generally been designed with buffers in the form of large setbacks between the most noise-producing and noise-sensitive types of land uses, which would greatly reduce the potential for incompatible land uses with respect to noise. Nonetheless, because noise associated with these types of uses could exceed applicable Sutter County noise limits at noise-sensitive areas, this impact is considered **potentially significant**.

Page 3.5-46 is revised as shown below:

Average daily traffic volumes were provided by the traffic consultant, Fehr & Peers, for existing and future, project and no-project conditions. To determine the relative differences between project and no-project conditions, the predicted traffic noise levels at a standardized distance of 100 feet from each roadway centerline were computed using the data in the Appendices B–D of Appendix G of this DEIR. The predicted traffic noise levels at a representative distance of 100 feet from the roadway centerlines, along with the increase from the existing noise level, are contained in Table 3.5-~~2022~~.

Table 3.5-2220 Traffic Noise Levels (Phase 1 Development)

Page 3.5-49 is revised as shown below:

Phase 1 development on the project site would result in changes in traffic along the existing roadway network. Relative to existing traffic noise levels within the project site, the increases in traffic noise levels on project-area roadways are predicted to range from 0 dB to 7 dB L_{dn} , as shown in Table 3.5-~~2022~~.

Page 3.7-8 is revised as shown below:

- ▶ development cannot raise the 100-year storm water elevation in the drainage system;
- ▶ development must provide detention to prevent runoff in excess of agricultural runoff; and
- ▶ development must provide additional pumping and carrying capacity to the extent that such demands on RD 1000 pumping plants and canals are increased.

This agreement was terminated and replaced by the December 2008 agreement between the County and RD 1000, which specifically addressed Measure M, approved after the October 2000 agreement, and the resulting Specific Plan development. The latest agreement, subject to approval of the Sutter Pointe Specific Plan, incorporates the following provisions for drainage to the proposed project:

- ▶ Preparation of a Drainage Plan for Sutter Pointe “reasonably acceptable” to RD 1000, as part of the studies recommended in the Sutter Pointe Drainage Master Plan (Wood Rodgers 2008) for the Sutter Pointe Specific Plan;
- ▶ All improvements to RD 1000’s drainage ditches, canals and pumping plants called for in the Drainage Plan will be installed in accordance with the improvement plans and specifications as approved by the district and paid for by the County (with funding through the developers); and
- ▶ RD 1000 would be provided all costs “reasonably associated” with the additional pumping required to dispose of additional stormwater runoff generated by the proposed project, as well as emergency maintenance costs and emergency power backup for the additional stormwater disposal.

Page 3.7-12 the following text has been added as shown below:

Central Valley Flood Protection Board

The proposed project is located within the jurisdiction of the Central Valley Flood Protection Board, which is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries (e.g. canals and engineered conveyances) of the Sacramento and San Joaquin Rivers and designated floodways (CCR Title 23, Section 2).

Central Valley Flood Protection Plan

The Central Valley Flood Protection Plan (CVFPP, as set forth in Water Code, Section 9614) is a descriptive document that includes the following elements:

...

Page 3.7-13 is revised as shown below:

Sacramento Area Flood Control Agency

The Sacramento Area Flood Control Agency (SAFCA), a joint powers authority formed by RD 1000, Sutter County, Sacramento County, the City of Sacramento, and the American River Flood Control District, was formed in September 1989 to work with USACE, Sacramento District and the State through the Reclamation Board (now the Central Valley Flood Protection Board) to provide all of Sacramento's floodplains that are protected within the Sacramento River Flood Control Project (SRFCP) with at least a 100-year level of flood protection as quickly as possible, while working to achieve a 200-year level of flood protection over time.

Page 3.7-21 is revised as shown below:

Natomas Basin

...Drainage and flood control for the Natomas Basin is provided by RD 1000, a public agency that has a coinciding service area ~~and several joint use facilities~~ with Natomas Mutual, and uses some RD 1000 facilities through an agreement between them. RD 1000 operates the primary drainage canals within the Natomas Basin and is responsible for conveying and pumping urban and non-urban stormwater runoff from the basin. ...

Page 3.7-22, first bullet is revised as shown below:

- ▶ The North Drainage Canal is an interior canal that conveys drainage water from the Sutter County portion of the Natomas basin northward, where it is pumped into the Natomas Cross Canal. The North Drainage Canal also conveys water to the west where it historically had been pumped into the Sacramento River at the RD 1000 Plant No. 2. This facility was removed during a flood emergency in 2006 and is scheduled to be reconstructed in the same general location in 2010.

Page 3.7-36, third paragraph is revised as shown below:

... and the final drainage design for the proposed project ~~would be based on the best available information at the time project development occurs~~ will be based on the information developed by the Drainage Plan required in the agreement between Sutter County and RD 1000 (see "Reclamation District 1000" in Regulatory Settings section above) (Wood Rodgers 2008).

Page 3.7-55 is revised as shown below:

Mitigation Measure 3.7-2c: Negotiate an Agreement with RD 1000.

On-Site Elements

The project applicant(s) of all project phases shall comply with the Drainage Improvement Agreement between RD 1000 and Sutter County. The agreement specifies the standards for design and construction of the improvements within the RD 1000 system that are required to accommodate the runoff from the channel improvements that would be required to convey storm water runoff through the Natomas Basin in order to maintain flood control requirements for the 100-year flood stage. ~~This agreement includes the following provisions:~~

- ~~▶ Stormwater from the project site discharged into the RD 1000 drainage system shall not exceed 0.16 0.067 cfs/acre.~~
- ~~▶ Hydrologic modeling for stormwater drainage impacts shall use RD 1000's Natomas Basin Modeling Plans.~~
- ~~▶ The proposed project shall provide additional pumping and carrying capacity to the extent that demands on RD 1000 pumping plants and canals are increased as a result of the proposed project.~~
- ~~▶ The agreement defines the roles and responsibilities of the project applicant(s), Sutter County, and RD 1000.~~

Implementation: Project applicant(s) of all project phases and off-site elements.

Timing: Before the issuance of grading permits for all project phases and off-site elements throughout project construction.

Enforcement: RD 1000; applicable county public works department(s); and other regulatory agencies, such as DTSC or Central Valley RWQCB, if warranted.

Page 3.10-4 is revised as shown below:

The applicant is proposing that the Sacramento Regional County Sanitation District (SRCSD) would provide off-site interceptor conveyance and sanitary sewer treatment and disposal for the project site. SRCSD is responsible for collection by interceptors (sanitary sewers that are designed to carry flows in excess of 10 million gallons per day [mgd]) and for wastewater treatment in Sacramento County. This district owns, operates, and is responsible for ~~both the public collection, trunk, and~~ interceptor sewer systems throughout Sacramento County and as well as the Sacramento Regional Wastewater Treatment Plant (SRWTP) located south of the community of Freeport. Exhibit 3.10-1 illustrates the location of SRCSD facilities and connection to the project site.

No SRCSD interceptors are located in the immediate vicinity of the project site, and the project site is not currently located in SRCSD's service area. Before SRCSD could provide wastewater service to the project, Sacramento County Local Agency Formation Commission (LAFCO) would need to amend the sphere of influence of SRCSD to include the project site in anticipation of a later "change of organization" as defined by statute. (See Section 3.1, "Land Use.") For SRCSD to provide service, Sutter County and SRCSD would need to enter into a formal agreement for service and operations to describe the interceptor conveyance, treatment obligations of SRCSD, and the fees to be paid for new residences and businesses to connect to the SRCSD system. Sutter County is currently negotiating an agreement with SRCSD to provide sewer service to the project site, should the project be approved. A "Principles of

Agreement,” which is a preliminary outline of the terms of the agreement for service by SRCSD, is under discussion. Consideration of the agreement by both the SRCSD Board of Directors and the Sutter County Board of Supervisors is anticipated in the early summer of 2009~~is expected in early 2009.~~ Annexation of the project site into the service area of SRCSD may be required. Such an annexation would require approval by the Sutter County Local Agency Formation Commission (LAFCO) and Sacramento County LAFCO before SRCSD could provide wastewater service to the project (see Section 3.1, “Land Use”).

Page 3.10-7 is revised as shown below:

Solid Waste

The off-site elements of the proposed project would extend into Placer and Sacramento Counties. Construction of the off-site program elements would generate temporary, short-term construction-related debris and solid waste. In Placer County, solid waste would be disposed of at the Western Regional Sanitary Landfill, which is permitted to accept 1,900 tpd of solid waste. In Sacramento County, solid waste would be disposed of at Kiefer Landfill, which is permitted to accept a maximum of 10,815 tpd of solid waste. Because construction-related solid waste would be short-term, these landfills are not discussed in further detail in this section.

Solid waste management for Sutter County is conducted under a joint powers agreement with Yuba County; the cities of Live Oak, Marysville, Wheatland, and Yuba City;~~and the City of Gridley~~ in Butte County. The agreement was entered into in 1990 to jointly address the provision of waste management services, including planning for the future provision of waste management services, and to form the Regional Waste Management Authority (previously the Bi-County Authority). Solid waste management in the bi-county region is conducted under federal and state regulatory policies as implemented and enforced by the California Integrated Waste Management Board (CIWMB) and the Central Valley RWQCB. The Yuba County Environmental Health Program serves as the Local Enforcement Agency for Sutter County, which monitors solid waste facility compliance in cooperation with the CIWMB (Sutter County 2008).

Page 3.10-8, second paragraph under “Ostrom Road Landfill” is revised as shown below:

In March 2002, the Yuba County Board of Supervisors granted YSDI an amendment to its existing permit to allow more tonnage to be accepted at the Ostrom Road Landfill. At present, the Ostrom Road Sanitary Landfill is permitted to accept 3,000 1,900 maximum tpd of solid waste Beginning in 2011, the permitted capacity would increase to 2,700 maximum tpd. After 2030, the permitted capacity would increase to 3,000 maximum tpd of solid waste. The landfill has a total capacity of 42 million cubic yards, and a remaining capacity of 41 million cubic yards. Currently, the landfill has a closure date of 2066 (NorCal Waste Systems, Inc. 2006, CIWMB 2007d).

Page 3.10-8, first paragraph under “Natural Gas” is revised as shown below:

Natural gas service in Sutter County is provided by PG&E through portions of PG&E’s 46,000 miles of natural gas distribution pipelines. In 2006, PG&E delivered approximately 828,000 million cubic feet (mmcf) of natural gas throughout its service area. In 2006, the county produced roughly 25 mmcf of natural gas. This represents nearly 3% of the total natural gas production in the state (Sutter County 2008).

Page 3.10-9 is revised as shown below:

According to PG&E, the existing transmission system in the Sacramento Valley region would require additional transmission facilities to provide reliable natural gas service to existing customers or to

extend service to future planned development in the area. PG&E anticipates that customer reliability could be at risk as early as 2009. As a result, PG&E is planning to construct the Line 406 and Line 407 Pipeline Project in Yolo, Sutter, Sacramento, and Placer Counties. PG&E anticipates that the Line 406/407 project would provide greater capacity and service reliability to the existing natural gas transmission and distribution pipeline system and would extend natural gas service to planned residential and commercial developments in Placer, Sutter, and Sacramento Counties. This natural gas pipeline project involves a new 30-inch transmission pipeline (identified as Line 406 and Line 407 East and Line 407 West) that would be approximately 40 miles long (~~identified as Line 406 and Line 407 East and Line 407 West~~) and a new distribution feeder main at Powerline Road. Line 406 would be constructed in 2009 (PG&E 2007).

Current projections are that Line 407 East and the Powerline Road distribution feeder main would be required in 2010. However, the pipelines may be installed prior to road improvements associated with developments along Riego and Baseline Roads. Line 407 West is projected to be required in 2012, but may be required earlier depending upon load growth in the area (PG&E 2007).

If timing allows, the proposed project would be served by the Line 407 East Pipeline. Line 407 East would consist of approximately 12 miles of 30-inch diameter pipeline. PG&E's preferred method of service provision is from the proposed Line 407 East pipeline. The transmission pipeline route would extend east from the junction the new Powerline Road distribution feeder main and follow Riego and Baseline Roads. The route would connect with an existing pipeline at the intersection of Baseline and Fiddymont Roads in Placer County. However, in the event that the larger Line 406/407 project is delayed, natural gas service could be provided to the initial project phases through a distribution line extension along Riego Road through the project site from the same location in Roseville. In the absence of the Line 406/407 project, extension of a transmission line along the same Riego Road alignment would be required to serve project buildout. Please refer to Exhibit 2-11 for an illustration of the Line 406/407 alignment, as well as the alignment for the potential distribution or transmission line extension from Roseville.

A notice of preparation (NOP) (SCH # 2007062091) for the proposed Line 406/407 project was prepared and circulated for public review in June 2007. The California State Lands Commission will be the lead agency under CEQA and will prepare the EIR. It is anticipated that the DEIR for the Line 406/407 project could be circulated for public review in ~~late 2008~~ mid-2009 (Spurr, pers. comm., 2008). The project is anticipated to be constructed in 2009 and 2010, respectively.

Potential impacts of the PG&E Line 406/407 project identified in the project description of the NOP include greenhouse gas emissions from construction vehicles; potential risks from release of natural gas; disturbance of habitat and special status plant and animal species, specifically the Swainson's hawk, giant garter snake, and valley elderberry longhorn beetle; disturbance of possible archaeological sites; disturbance of unknown paleontological resources; possible exposure of construction crews and the public to hazardous materials used in construction or present in excavated soils; short term effects on agriculture; possible frac-out of water bodies crossed by the pipeline; temporary noise and or ground vibration that would exceed ambient noise levels; and traffic congestion where the pipeline crosses roads through trenching (PG&E 2007).

Page 3.10-13 is revised as shown below:

Flows from the central pump station on the project site would be pumped through a set of force mains to a point of connection with SRCSD's UNWI 3 at Elkhorn Boulevard and West Sixth Street in Rio Linda. Currently, the project site is not within the SRCSD's service area. Before wastewater flows could be discharged into the UNWI, Sacramento County LAFCO would need to amend the sphere of influence of SRCSD to include the project site in anticipation of a later "change of organization" as

defined by statute. Sutter County is currently negotiating an agreement with SRCSD to provide sewer service to the project site. Consideration of the agreement by both the SRCSD Board of Directors and the Sutter County Board of Supervisors is anticipated in the early summer of 2009, which is expected in early 2009. This agreement would define the general terms through which wastewater service would be provided to the proposed project by SRCSD, summarize the maximum wastewater flow rates generated by the proposed project, identify wastewater conveyance and storage facilities to be constructed by the project applicant(s), and establish fees to be paid to SRCSD for wastewater service. The agreement would not commit the County to approve the proposed project, but would provide for a means for wastewater disposal in the event the proposed project is approved. Approval of this agreement would be required before wastewater flows generated by the proposed project could be conveyed and treated at the SRWTP. In addition, the proposed project would require a wastewater services agreement, which would act as a binding contract between Sutter County and SRCSD, and an operations agreement, which would identify the specific wastewater facilities required and would define the operational responsibilities and expectations of these facilities, before SRCSD would provide sewer service to the project site.

Page 3.10-19 is revised as shown below:

Off-Site Elements

The off-site elements and force mains would extend into Placer and Sacramento Counties. Construction of the off-site program elements would generate short-term construction-related debris and solid waste. Solid waste generated by construction activities in Placer County would transported to the Western Placer Waste Management Authority Materials Recovery Facility. Unrecyclable solid waste would be disposed of at the Western Regional Sanitary Landfill, which is permitted to accept 1,900 tpd of solid waste and has a remaining capacity of 29 million cubic yards. In Sacramento County, solid waste would be disposed of at Kiefer Landfill, which is permitted to accept a maximum of 10,815 tpd of solid waste and has a remaining capacity of 117 million cubic yards. Because these landfills have sufficient permitted capacity to accommodate short-term construction-related disposal needs for the proposed project and because the construction-related solid waste would be short term, this **direct** impact is **less than significant**. No **indirect** impacts would occur.

Pages 3.10-19, last paragraph, and 3.10-20, first paragraph are revised as shown below:

Unrecyclable solid waste would be disposed of at the Ostrom Road Landfill, which is It is anticipated that solid waste disposal services would be required after initiation of the proposed project in 2011. At that time, the Ostrom Road Landfill would be permitted to accept 2,700 tpd of solid waste. The estimated 330.6 tpd of solid waste generated by the proposed project at buildout would be approximately 11% 12% of the 3,000 2,700 maximum tpd that could be received at the landfill. After 2030, the permitted capacity would increase to 3,000 maximum tpd of solid waste and Therefore, this landfill has would continue to have sufficient permitted capacity to accommodate solid-waste disposal needs for the proposed project.

Pages 3.10-21 and 3.10-22 are revised as shown below:

On-Site Elements

Implementation of the proposed project would increase natural gas demand on the project site. Natural gas consumption for housing units averages 221 cubic feet of natural gas per day per dwelling unit (South Coast Air Quality Management District 1993). Commercial and office energy consumption varies depending on specific uses, building materials, and space configurations. In general, commercial and office uses average approximately 0.097 cubic feet of natural gas per square foot per day (South Coast Air Quality Management District 1993). The proposed dwelling units would require 3.9 mmcf per day (17,500 dwelling unit × 221 cubic feet per day), and commercial and industrial uses would require 4.8

mmcf per day (49,706,000 square feet × 0.097 cubic feet per day). Based on these rates, the proposed project would increase natural gas demands by 8.7 mmcf per day.

Natural gas service in Sutter County is provided by PG&E through portions of PG&E's 46,000 miles of natural gas distribution pipelines. In 2006, PG&E delivered approximately 828,000 mmcf of natural gas throughout its service area. In 2006, the county produced roughly 25 mmcf of natural gas. This represents nearly 3% of the total natural gas production in the state.

PG&E does not currently have gas service infrastructure on the project site. The nearest gas service is approximately 2 miles southeast of the project site, in the northern portions of the community of Rio Linda. PG&E's facility in this location, however, does not have the capacity to serve the project site. Instead, PG&E proposes to extend natural gas service west along Riego Road (Baseline Road in Placer County) from Roseville to an existing pipeline at the intersection of Baseline and Fiddymont Roads in Roseville from the proposed Line 407 East Pipeline. Line 407 East would consist of a 12-mile long, 30-inch diameter pipeline designed to operate at a MAOP of 975 psig transmission pressure. This extension would consist of an 8-inch-diameter distribution line. The proposed alignment of this new distribution line is The transmission pipeline route would extend east from the junction the new Powerline Road distribution feeder main along the north side of Riego and Baseline Roads through the entire project site (see Exhibits 2-10 and 2-11 in Chapter 2, "Project Description"). The route would connect with an existing transmission pipeline operating at a MAOP of 500 psig at the intersection of Baseline and Fiddymont Roads in Placer County.

PG&E intends to extend natural gas service onto the project site through an underground distribution system from the proposed Line 407 East Pipeline through two distribution regulator stations located within the project site boundaries and an underground distribution system that would operated at a MAOP of 60 psig. The gas distribution regulator stations would be constructed within a 20-foot by 80-foot easement that would have 24 hour all weather access for maintenance and operations.

The on-site service lines would be sized to meet the demands of the proposed project, and public utility easements would be dedicated for all underground facilities. PG&E would extend lines and construct facilities to serve the project site concurrently with development phases, and the location of this infrastructure would be identified in the final project design. As part of the project approval process, the project applicant would coordinate with and meet the requirements of PG&E regarding the extension and locations of on-site infrastructure.

Alternatively, if timing allows, PG&E may serve the proposed project from the new Line 407 East pipeline, which is proposed as part of PG&E's Line 406/407 project. The pipeline would consist of approximately 12 miles of 30-inch-diameter pipeline and would extend east from the junction the new Powerline Road distribution feeder main and follow Riego and Baseline Roads. The route would connect with an existing pipeline at the intersection of Baseline and Fiddymont Roads in Roseville. An NOP (SCH # 2007062091) for the Line 406/407 project was prepared and circulated for public review in June 2007, and potential impacts for construction of the proposed PG&E Pipeline 406/407 project are identified in the NOP are summarized above in the "Environmental Setting." An EIR is currently being prepared to identify analyze specific impacts of the proposed pipeline project and identify any required mitigation measures. According to PG&E, a DEIR for the Line 406/407 project may be released in late 2008 mid-2009. The pipeline project is anticipated to be constructed in 2009 and 2010. However, PG&E has indicated that it has adequate natural gas supplies and infrastructure to support the proposed project at buildout and is not reliant on the Line 407 East Pipeline to provide reliable natural gas service to the project. PG&E is planning to construct the Line 406/407 Pipeline Project to provide greater capacity and service reliability to the existing natural gas transmission and distribution system and serve the overall projected customer load growth in Placer, Sutter, and Sacramento Counties. Therefore, the proposed project would not contribute to impacts associated with the construction of the proposed PG&E Line

406/407 project. Because PG&E is able to would provide natural gas and associated infrastructure to the project site from the proposed Line 406/407 Pipeline Project, this and the **direct** impact is **less than significant**. **No indirect** impacts would occur.

Page 3.12-18 is revised as shown below:

NATURAL GAS TRANSMISSION LINES

No natural gas transmission lines are currently located on the project site or in the immediate vicinity (MacKay and Soms 2008). PG&E proposes to construct natural gas transmission line 406/407 across the project site in 2010. This natural gas transmission line is currently undergoing separate environmental review.

Page 3.10-26 is revised as shown below:

Implementing the proposed project would increase demand for wastewater treatment facilities and would contribute to the need to expand the SRWTP; therefore, the project would contribute indirectly to the ~~two~~ single significant and unavoidable impacts identified in the 2020 Master Plan EIR.

Page 3.12-27, first paragraph and Mitigation Measure 3.12-4 are revised as shown below:

The proposed project appropriately designates Employment 2 and Industrial Drainage Basins as the only land uses proposed within airport safety zones. The Sacramento International Airport Master Plan identifies the extension of the existing east runway as a possible future project. This runway extension would increase the area of the project site within the airport safety zones, but the entire potentially affected area lies within the Employment 2 and Industrial Drainage Basin land use designations. These land uses are compatible with the overflight zone. However, many Some specific types of manufacturing and commercial uses which would be permitted in the Employment 2 designation are not compatible in the overflight or approach-departure zone. The specific types of manufacturing and commercial uses that would be developed as part of the proposed project are not known at this time. Therefore, additional restrictions (relating to, among others, number of people per hour per acre, lights of certain colors, reflection of sunlight, generation of smoke, electrical interference, and hazardous material use and storage) may be required for those future manufacturing and commercial land uses. Therefore, this direct impact is **potentially significant**. **No indirect** impacts would occur.

Mitigation Measure 3.12-4: Evaluate Compatibility of Future On-Site Land Uses in the Sacramento International Airport's Approach-Departure and Overflight Zones and Implement Any Required Restrictions on Land Uses by the Airport.

On-Site Elements

Where required by state law, the County shall consult with the Airport Land Use Commission to obtain a determination as to whether proposed land uses are consistent with the Sacramento International Airport Comprehensive Land Use Plan. In no event shall the Board of Supervisors approve any land use that the Board determines is inconsistent with the purposes of the State Aeronautics Act. In addition, prior to County approval of improvement plans for any individual development proposal that includes land within the overflight or approach-departure zones, the County shall consult with the Sacramento International Airport. Any feasible restrictions on land uses recommended by the Sacramento International Airport (e.g., lights of certain colors, building materials to reduce reflection of sunlight, requirements for hazardous material use and storage) shall be implemented by the project applicant(s).

Page 3.17-13 is revised as shown below:

Implementing Mitigation Measure 3.4-1 (see Chapter 3.4, “Air Quality”) would reduce construction vehicle emissions to the degree feasible, by requiring use of certain engines, following specific criteria, and other requirements. By reducing emissions of criteria air pollutants, GHG emissions also would be reduced, with the exception of certain measures (e.g., dust control measures such as running water trucks could increase GHG emissions, and installation of PM filters on off-road equipment would provide no benefit toward reducing GHG emissions). However, these reductions would not be sufficient to fully reduce the construction-generated GHGs to the extent that they would not be cumulatively considerable. The regulatory changes that are likely under AB 32 and other legislation may result in additional, more substantial reductions in emissions through the use of low carbon fuels or off-road engine standards. No other feasible mitigation measures are available at the time of writing this DEIR. Because of the uncertainty with respect to GHG reductions from regulations that have not yet been developed, and because the GHGs generated by project-related construction activities are considerable, the proposed project’s incremental contribution would be cumulatively considerable and **significant and unavoidable**.

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