I-80/SR 65 Interchange Improvements Project **AQCA**

Air Quality Conformity Analysis

I-80/SR 65 Interchange Improvements Project
Placer County, Interstate 80 and State Route 65
03-PLA-80-PM 1.9 to 6.1
03-PLA-65-PM R4.8 to R7.3

EA 03-4E3200

September 2014

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

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Prepared By: Laura E. Yoon Date: September 22, 2014

Laura Yoon
Air Quality and Climate Change Specialist
ICF International, Sacramento

Reviewed and Approved By: Shannon Hatcher Date: September 22, 2014

Shannon Hatcher
Air Quality, Climate Change, and Noise Project Manager

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Acronyms and Abbreviations

AADT	Average annual daily traffic
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CO Protocol	California Project-Level Carbon Monoxide Protocol†
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
HOV	high occupancy vehicle
I-80	Interstate 80
IAC	Interagency Consultation
LOS	level of service
mph	miles per hour
MTIP	Metropolitan Transportation Improvement Program
MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO_2	nitrogen dioxide
O_3	ozone
PCTPA	Placer County Transportation Planning Agency
PLCG	Project Level Conformity Group
PM	particulate matter
POAQC	Projects of Air Quality Concern
ppm	parts per million
RTP	Regional Transportation Plans
SACOG	Sacramento Area Council of Governments
SCS	Sustainable Communities Strategy
SER	Standard Environmental Reference
SIP	state implementation plan
SR 65	State Route 65
SVAB	Sacramento Valley Air Basin
TCMs	Transportation Control Measures
TIP	transportation improvement program

Chapter 1 Introduction and Project Description

This Air Quality Conformity Analysis contains the information that is required to make a project-level air quality conformity determination for the Interstate 80/State Route 65 Improvements Project. This analysis has been prepared to be consistent with information published by Federal Highway Administration (FHWA) related to Project-Level Conformity Analysis, the Standard Environmental Reference (SER) Air Quality Conformity Findings Checklist (included as Appendix A), applicable U.S. Environmental Protection Agency (EPA) project-level analysis guidance, the Transportation Conformity Regulations at 40 Code of Federal Regulations (CFR) 93 Subpart A, and Section 176(c) of the federal Clean Air Act (42 U.S. Code [USC 7506] (c)).

This analysis only addresses the conformity requirements of the Federal Clean Air Act. It does not address general air quality analysis or studies conducted for the National Environmental Policy Act (NEPA) or the California Environmental Quality Act (CEQA), and only addresses pollutants for which the project area is designated nonattainment, or attainment with an approved maintenance state implementation plan (SIP), by EPA.

This report is intended to provide all information needed by FHWA to make a project-level conformity determination for a project that falls under 23 USC 327 NEPA Assignment to Caltrans; or to support a full project-level conformity determination by Caltrans under 23 CFR 326 NEPA Assignment for projects that require a project-level conformity determination (including regionally significant projects as defined in 40 CFR 93.101), and that are categorically excluded from NEPA analysis under 23 CFR 771.117(c)(22) or 23 CFR 771.117(c)(23).

1.1 Project Description

The California Department of Transportation (Caltrans), in cooperation with the Placer County Transportation Planning Agency (PCTPA), Placer County, and the Cities of Roseville, Rocklin, and Lincoln, proposes to improve the Interstate 80/State Route 65 (I-80/SR 65) interchange to reduce future traffic congestion, improve operations and safety, and comply with current Caltrans and local agency design standards. The project is located in Placer County in the cities of Roseville and Rocklin at the I-80/SR 65 interchange (Figure 1).

Three build alternatives are proposed in addition to the No Build Alternative. Alternatives 1 through 3 propose to add capacity, a bidirectional high occupancy vehicle (HOV) system, and high-speed connector ramps. Local and regional circulation and access would be improved, as would weave conditions along I-80 between Eureka Road/Atlantic Street and Taylor Road and along SR 65 between the I-80/SR 65 interchange and Galleria Boulevard/Stanford Ranch Road. Other improvements would include widening the East Roseville Viaduct, replacing the Taylor Road overcrossing, and realigning the existing eastbound I-80 to northbound SR 65 loop connector. A preferred alternative will be selected following public and agency review of the draft Environmental Impact Report/Environmental Assessment.

The project is needed for the following reasons.

1. Recurring morning and evening peak-period demand exceeds the current design capacity of the I-80/SR 65 interchange and adjacent transportation facilities, creating traffic operations and safety issues. These issues result in high delays and wasted fuel, both of which will be exacerbated by traffic from future population and employment growth.
2. Interchange design features do not comply with current Caltrans design standards for safe and efficient traffic operations and limit existing community access to nearby land uses.
3. Travel choices are limited in the project area because the transportation network does not include facilities for all modes and users consistent with the complete streets policies of Caltrans and local agencies.

Construction of the project would occur in four phases, with the first three phases divided into several subcomponents. Work is currently projected to occur between 2020 and 2034.

1.2 Air Quality Regulatory Framework

Table 1 shows that the project is located in an area that is nonattainment for ozone (O_3) and particulate matter (PM2.5) and maintenance for carbon monoxide (CO). This analysis focuses on these criteria pollutant(s). The conformity process does not address pollutants for which the area is attainment/unclassified, mobile source air toxics, other toxic air contaminants or hazardous air pollutants, or greenhouse gases.

Table 1. Project Area Attainment Status

Criteria Pollutant	Federal Attainment Status
Ozone (O_3)	Severe Nonattainment
Nitrogen Dioxide (NO_2)	Attainment
Carbon Monoxide (CO)	Moderate Maintenance
Particulate Matter (PM10)	Attainment
Particulate Matter (PM2.5)	Nonattainment

Source: United States Environmental Protection Agency 2013a

Table 1 shows the applicable federal attainment status for O_3, nitrogen dioxide (NO_2), CO, PM10, and PM2.5 for the portion of Placer County within the Sacramento Valley Air Basin

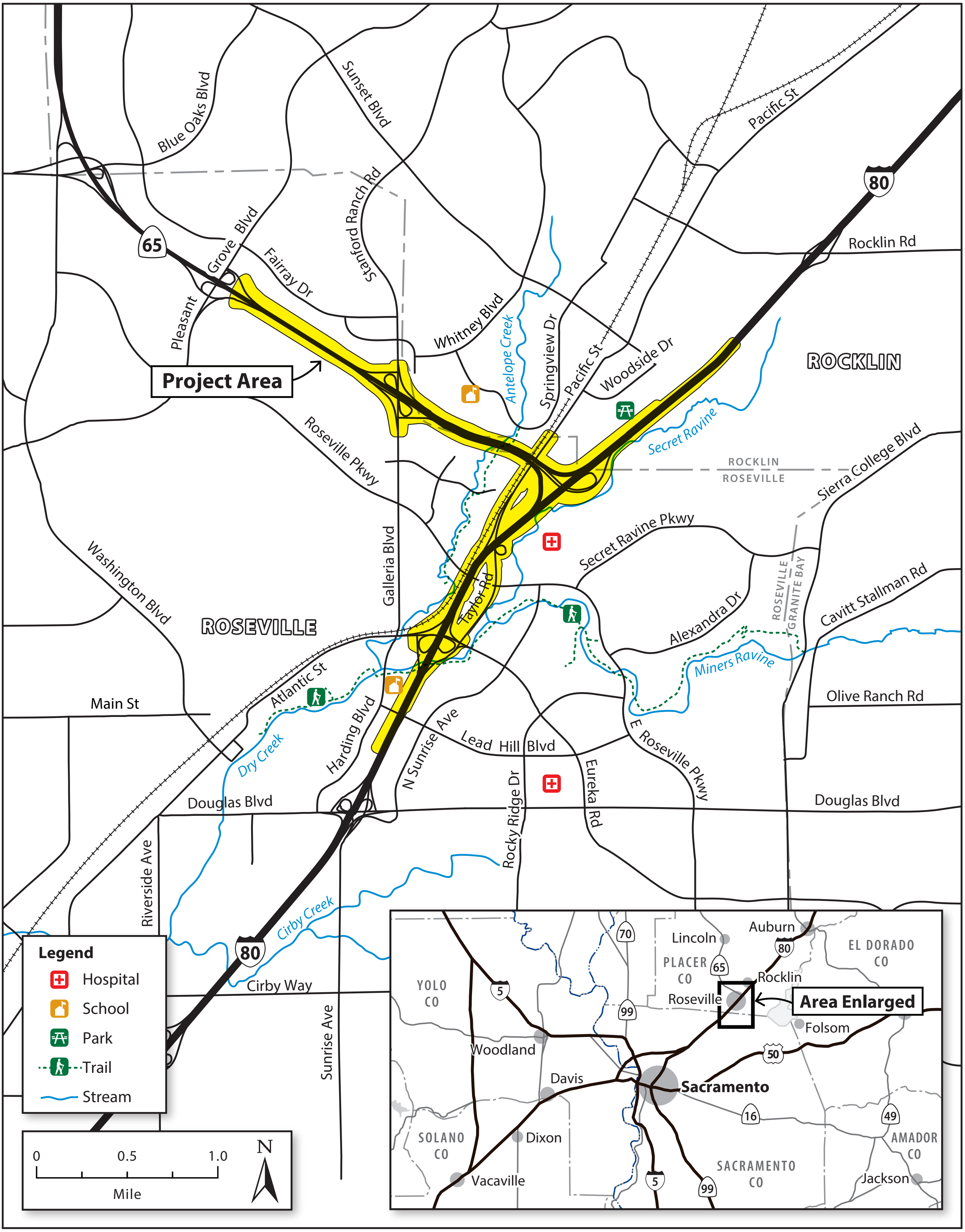

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Figure 1
Project Location

(SVAB), including the project area. The 8-hour federal O_3 nonattainment classification applies to the Sacramento Metropolitan Area, which is defined as the area between Yolo and Solano Counties on the west and the western majority of Placer and El Dorado Counties on the east. The 24-hour PM2.5 standard nonattainment classification applies to the majority of the SVAB south of Tehama County. Maps showing the nonattainment designations for both pollutants are provided in Appendix B.

1.3 Public Review Comments Related to Air Quality Conformity

Public comment regarding the conformity analysis will be requested as part of draft NEPA document circulation, expected in summer 2016. Public comments related to conformity and a copy of the public notice will be included in the Final AQCA.

Chapter 2 Regional Conformity

Phase 1 of the I-80/SR 65 Interchange Improvements Project is included in the regional emissions analysis conducted by Sacramento Area Council of Governments (SACOG) for the conforming 2035 Metropolitan Transportation Plan (MTP)/Sustainable Communities Strategy (SCS) and 2013–2016 MTIP (SACOG ID PLA25440*)*. The complete project (i.e., Phases 1 through 4) will be included in the regional emissions and conformity analysis for the upcoming 2036 MTP/SCS and 2015-2018 MTIP. The regional emissions analysis for all phases of the project, which will take into account regionally significant projects and financial constraint, will conform to the SIP(s) for attaining the National Ambient Air Quality Standards (NAAQS) as provided in Section 176(c) of the Clean Air Act.

FHWA and FTA determined that the 2035 MTP/SCS and the 2013-2016 MTIP (as amended) conform to the SIP on July 29, 2014. Adoption and federal approval of the 2036 MTP/SCS and 2015-2018 MTIP is expected in early 2016, whereas the final environmental document for the project is expected in summer 2016. Accordingly, the regional emissions modeling conducted for the 2036 MTP/SCS and 2015-2018 MTIP would ensure that, prior to preparation of the final environmental document for the Project, the design, concept, and scope for the project will be consistent with the description in the 2036 MTP/SCS and 2015-2018 MTIP and the “open to traffic” assumption of SACOG’s regional emissions analysis. Additional documentation related to the regional emissions analysis for the 2036 MTP/SCS and 2015-2018 MTIP will be included in Appendices D and E of the Final AQCA.

Chapter 3 Localized Impact (Hot-Spot) Conformity

3.1 Carbon Monoxide Hot-Spot Analysis

The California Project-Level Carbon Monoxide Protocol[†] (CO Protocol) was used to analyze CO impacts for the project. The hot-spot analysis covered the most congested intersections affected by the project in 2012 (existing year), 2020 (construction year), and 2040 (design year), with 2012 conditions having the highest concentrations.

The ambient air quality effects of traffic emissions were evaluated using the modeling procedures described in Appendix B of the CO Protocol and Appendix F of this document. The assumptions used in the hot-spot analysis are consistent with those used in the regional emissions analysis.

The modeling results shown in Appendix F indicate that total CO concentrations would not cause or contribute to any new localized violations of the federal 1-hour or 8-hour CO ambient standards. Appendix G provides model input data and output reports.

The NEPA document for this project does not identify specific avoidance, minimization, and/or mitigation measures for CO. A written commitment to implement such control measures is, therefore, not required.

The approved MTP and MTIP for the project area have no CO mitigation or control measures that relate to the project's construction or operation. Therefore, a written commitment to implement CO control measures is not required.

3.2 PM2.5/PM10 Hot-Spot Analysis

The portion of Placer County within the SVAB, including the project area, is currently categorized as a nonattainment area for the federal PM2.5 (2006) standard (see Table 1).

[†] CAL3QHCR can also be used, with EMFAC emission factors, in place of the CO Protocol. If this type of analysis is done, the following must be described fully: why the CO Protocol was not used; how the analysis complies with EPA regulations (Appendix W and other CO modeling guidance); modeling assumptions and inputs; outputs; and evaluation regarding whether or not the project will cause, contribute to, or worsen a CO hot-spot. Interagency consultation regarding model usage, emission factors (latest EMFAC version made available for conformity use by EPA), and results is required if CAL3QHCR is used and must be documented in a suitable appendix along with listings of all model inputs and outputs.

A quantitative PM hot-spot analysis is required under the EPA Transportation Conformity Rule for Projects of Air Quality Concern (POAQC), as described in EPA's Final Rule of March 10, 2006. Projects that are not POAQC do not require detailed PM hot-spot analysis.

In March 2006, the FHWA and EPA issued a guidance document entitled *Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas* (Federal Highway Administration and U.S. Environmental Protection Agency 2006). This guidance identifies examples of projects that are most likely POAQCs and details a qualitative step-by-step screening procedure to determine whether project-related particulate emissions have potential to generate new air quality violations, worsen existing violations, or delay attainment of NAAQS for PM2.5 or PM10. EPA's and FHWA's Qualitative PM hot-spot guidance was superseded in December 2010 when EPA issued a guidance document entitled *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas* (U.S. Environmental Protection Agency 2010). This guidance prescribes a quantitative approach to performing PM hot-spot analyses to satisfy project-level transportation conformity requirements. EPA's quantitative PM hot-spot guidance was last revised in November 2013 to include guidance updates for performing PM hot-spot analyses in California using EMFAC2011 (U.S. Environmental Protection Agency 2013b).

Section 93.123(b)(1) of the Conformity Rule defines the projects that require a PM2.5 or PM10 hot-spot analysis as follows.

1) New highway projects that have a significant number of diesel vehicles and expanded highway projects that have a significant increase in the number of diesel vehicles.
2) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of- Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project.
3) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location.
4) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location.
5) Projects in or affecting locations, areas, or categories of sites that are identified in the PM2.5 or PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

The project is not considered a POAQC for PM2.5 because it does not meet the definition of a POAQC as defined in EPA's Transportation Conformity Guidance, outlined below.

1) **New highway projects that have a significant number of diesel vehicles and expanded highway projects that have a significant increase in the number of diesel vehicles**. The project would construct improvements on an existing freeway to freeway interchange. For existing freeway facilities, the effect of a project on truck volumes is typically the primary point on which this criterion is judged. A project may be located on a freeway with a substantial number of trucks, but if it does not change those truck volumes significantly, it may have a minimal effect on exhaust-related PM. As shown in Table H-1 in Appendix H, the proposed project would result in 2040 truck volumes increasing by less than five% on all of the six freeway segments in the project limits. Looking at the segment of I-80 between Taylor Road and SR 65, the increase in the total number of vehicles between Alternative 1 and the no build condition is 14,300 per day. However, as shown in Exhibit H-2 in Appendix H, most trucks stay on the freeways under both no project and with project conditions. As a result, Table 2 shows that truck volumes on I-80 between Taylor Road and SR 65 would increase by only 400 trucks per day, which is less than a 3% increase.

2) **Projects affecting intersections that are at Level-of-Service (LOS) D, E, or F with a significant number of diesel vehicles or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project**. Implementation of the project would relieve congestion on the local roadway network by redistributing traffic from the local roadways to the mainline I-80/SR 65 corridor. The traffic study evaluated 37 intersections during the a.m. and p.m. peak hours (Fehr & Peers 2014). As shown in Appendix H, the project would result in improved LOS and reduced vehicle delay at all but four study intersections (Stanford Ranch Road / Five Star Boulevard, Roseville Parkway / Creekside Ridge Drive, Roseville Parkway/Taylor Road [Alternative 3 only], and Eureka Road / Taylor Road / I-80 eastbound Ramps). However, none of the study intersections have a significant number of trucks (less than 5%); therefore, the project would not affect any at-grade intersections with a high number of diesel vehicles.

3) **New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location**. The project does not include new bus or rail terminals and transfer points.

4) **Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location**. The project does not include expanded bus or rail terminals and transfer points.

5) **Projects in or affecting locations, areas, or categories of sites that are identified in the PM2.5 or PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation**. Currently, there is no SIP for the federal PM2.5 standard.

The project is not considered a POAQC for PM10 and/or PM2.5 because it does not meet the definition of a POAQC as defined in EPA's Transportation Conformity Guidance. Therefore, a PM hot-spot analysis is not required.

The project has undergone interagency consultation (IAC) regarding POAQC determination. IAC participants concurred that the project is not a POAQC (see Appendix I).

The NEPA document for this project identifies the following mitigation, minimization, or avoidance measures related to PM10 and/or PM2.5:

1. Implement California Department of Transportation Standard Specification Section 14.
2. Implement Additional Control Measures for Construction Emissions of Fugitive Dust.

Approval of the NEPA document for this project will be considered a written commitment to implement the identified PM10 and/or PM2.5 control measures.

The approved PM10 SIP has no control measures applicable to the project. Therefore, a written commitment to implement control measures is not required.

The approved MTP and MTIP for the project area have no PM mitigation or control measures that relate to the project's construction or operation. Therefore, a written commitment to implement PM control measures is not required.

3.3 Construction-Related Hot-Spot Emissions

40 CFR 93.123(c)(5) states the following.

> CO, PM10, and PM2.5 hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site.

While construction of the entire project is expected to require 15 years, construction activities in one general location would occur for fewer than 5 years. Accordingly, construction-related emissions related to the project are not considered in the project-level or regional conformity analysis.

Chapter 4 References

Benson, Paul. 1984, revised 1989. CALINE4—A Dispersion Model for Predicting Air Pollutant Concentrations Near Roadways. Sacramento, CA: California Department of Transportation.

California Air Resources Board. 2014. Aerometric Data Analysis and Management System (ADAM): Top 4 Summary. Available: < http://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed: January 21, 2014.

Federal Highway Administration and U.S. Environmental Protection Agency. 2006. Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas. EPA420-B-06-902. March.

Fehr & Peers. 2014. I-80/SR-65 Interchange Improvements Project Transportation Analysis Report. February.

Garza, V. J., P. Graney, and D. Sperling. 1997. Transportation Project-Level Carbon Monoxide Protocol. Davis, CA: Institute of Transportation Studies, University of California, Davis.

U.S. Environmental Protection Agency. 2010. Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas. EPA-420-B-13-05. December.

U.S. Environmental Protection Agency. 2013a. The Green Book Nonattainment Areas for Criteria Pollutants. Last Revised: December 05, 2013. Available: <http://www.epa.gov/oar/oaqps/greenbk/>. Accessed: May 8, 2014.

U.S. Environmental Protection Agency. 2013b. Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas. EPA-420-B-13-053. November.

U.S. Environmental Protection Agency. 2013c. Air Data. Monitor Values Report. Last Revised: September 9, 2013. Available: <http://www.epa.gov/airdata/ad_rep_mon.html>. Accessed: January 22, 2014.

Appendix A. Air Quality Conformity Findings Checklist

Transportation Air Quality Conformity Findings Checklist

Project Name: Interstate 80/State Route 65 Interchange Improvement Project
Dist-Co-Rte-PM:. PLA-65-R4.8/R7.3 and PLA-80-1.9/6.1 **EA:** EA-4E3200
Federal-Aid No.:
Document Type: ☐ **23 USC 326 CE** ☐ **23 USC 327 CE** ☒ **EA** ☐ **EIS**

Step 1. Is the project located in a nonattainment or maintenance area for ozone, nitrogen dioxide, carbon monoxide (CO), PM2.5, or PM10 per EPA's Green Book listing of non-attainment areas?

☐ If no, go to Step 17. **Transportation conformity does not apply to the project.**
☒ If yes, go to Step 2.

Step 2. Is the project exempt from conformity per 40 CFR 93.126 or 40 CFR 93.128

☐ If yes, go to Step 17. **The project is exempt from all project-level conformity requirements (40 CFR 93.126 or 128)** (check one box below and identify the project type, if applicable).
  ☐ 40 CFR 93.126 Project type:
  ☐ 40 CFR 93.128
☒ If no, **go** to Step 3.

Step 3. Is the project exempt from regional conformity per 40 CFR 93.127

☐ If yes, go to Step 8. **The project is exempt from regional conformity requirements (40 CFR 93.127)** (identify the project type). Project type:
☒ If no, go to Step 4.

Step 4. Is the project located in a region with a currently conforming RTP and TIP?

☒ If yes, t**he project is included in a currently conforming RTP and TIP per 40 CFR 93.115. The project's design and scope have not changed significantly from what was assumed in RTP conformity analysis (40 CFR 93.115[b])** Go to Step 8.
☐ If no and the project is located in an isolated rural area, go to Step 5.
☐ If no and the project is not located in an isolated rural area, STOP and do not proceed until a conforming RTP and TIP are adopted.

Step 5. For isolated rural areas, is the project regionally significant per 40 CFR 93.101, based on review by Interagency Consultation?

☐ If yes, go to Step 6.
☐ If no, go to Step 8. **The project, located in an isolated rural area, is not regionally significant and does not require a regional emissions analysis (40 CFR 93.101 and 93.109[l]).**

Step 6. Is the project included in another regional conformity analysis that meets the isolated rural area analysis requirements per 40 CFR 93.109, including Interagency Consultation and public involvement?

☐ If yes, go to Step 8. **The project, located in an isolated rural area, has met its regional analysis requirements through inclusion in a previously-approved regional conformity analysis that meets current requirements (40 CFR 93.109[l]).**
☐ If no, go to Step 7.

Step 7. The project, located in an isolated rural area, requires a separate regional emissions analysis.

☐ **Regional emissions analysis for regionally significant project, located in an isolated rural area, is complete. Regional conformity analysis was conducted that includes the project and reasonably foreseeable regionally significant projects for at least 20 years. Interagency Consultation and public participation were conducted. Based on the analysis, the interim or emission budget conformity tests applicable to the area are met (40 CFR 93.109[l] and 95.105).**[1] Go to Step 8.

Step 8. Is the project located in a CO nonattainment or maintenance area?

☐ If no, go to Step 9. **CO conformity analysis is not required.**
☒ If yes, **hot-spot analysis requirements for CO per the** CO Protocol (or per EPA's modeling guidance, CAL3QHCR can be used with EMFAC emission factors[2]) **have been met. Project will not cause or contribute to a new localized CO violation (40 CFR 93.116 and 93.123)[3].** Go to Step 9.

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[1] The analysis must support this conclusion before going to the next step.

[2] Use of the CO Protocol is strongly recommended due to its use of screening methods to minimize the need for modeling. When modeling is needed, the Protocol simplifies the modeling approach. Use of CAL3QHCR must follow U.S. EPA's latest CO hot spot guidance, using EMFAC instead of MOVES; see: http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm#co-hotspot.

[3] As of October 1, 2007, there are no CO nonattainment areas in California. Therefore, the requirements to not worsen existing violations and to reduce/eliminate existing violations do not apply.

Step 9. Is the project located in a PM10 and/or a PM2.5 nonattainment or maintenance area?

☐ If no, go to Step 13. **PM2.5/PM10 conformity analysis is not required.**

☒ If yes, go to Step 10.

Step 10. Is the project considered to be a Project of Air Quality Concern (POAQC), as described in EPA's Transportation Conformity Guidance for PM 10 and PM 2.5?

☒ If no, **the project is not a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Analysis Guidance. Interagency Consultation concurred with this determination on April 23, 2013**. Go to Step 12.

☐ If yes, go to Step 11.

Step 11. The project is a POAQC.

☐ **The project is a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123, and EPA's Hot-Spot Guidance. Interagency Consultation concurred with this determination on _____. Detailed PM hot-spot analysis, consistent with 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Guidance, shows that the project would not cause or contribute to, or worsen, any new localized violation of PM10 and/or PM2.5 standards.** Go to Step 12.

Step 12. Does the approved PM SIP include any PM10 and/or PM2.5 control measures that apply to the project, and has a written commitment been made as part of the air quality analysis to implement the identified SIP control measures?

☐ If yes, **a written commitment is made to implement the identified SIP control measures for PM10 and/or PM2.5 through construction or operation of this project (40 CFR 93.117).**

☒ If no, go to Step 13.

Step 13a. Have project-level mitigation or control measures for CO, PM10, and/or PM2.5, included as part of the project's design concept and scope, been identified as a condition of the RTP or TIP conformity determination? AND/OR

Step 13b. Are project-level mitigation or control measures for CO, PM10, and/or PM2.5 included in the project's NEPA document?

AND

Step 13c (applies only if Step 13a and/or 13b are answered "yes")**.** Has a written commitment been made as part of the air quality analysis to implement the identified measures?

☒ If yes to 13a and/or 13b and 13c, **a written commitment is made to implement the identified mitigation or control measures for CO, PM10, and/or PM2.5 through construction or operation of this project. These mitigation or control measures are identified in the project's NEPA document and/or as conditions of the RTP or TIP conformity determination.[1] (40 CFR 93.125(a))**

☐ If no, go to Step 14

Step 14. Does the project qualify for a 771.117(c)(22) or 771.117(c)(23) Categorical Exclusion pursuant to 23 USC 326 and is an Air Quality Conformity Analysis required to document any analysis required by Steps 1 through 13 of this form?

☐ If yes, then Caltrans prepares the Air Quality Conformity Analysis and makes the conformity determination. No FHWA involvement is required. See the AQCA Annotated Outline. Go to Step 17.

☒ If no, go to Step 15.

Step 15. Does the project quality for any other Categorical Exclusion pursuant to 23 USC 326 (but NOT 771.117(c)(22) or 771.117(c)(23))?

☐ If yes, then no FHWA involvement is required and Caltrans makes the conformity determination through its signature on the CE form. **An Air Quality Conformity Analysis (AQCA) is not needed.** Go to Step 17.

☒ If no, go to Step 16.

Step 16. Does the project require preparation of a Categorical Exclusion, EA, or EIS pursuant to 23 USC 327?

☒ If yes, then Caltrans submits a conformity determination to FHWA for FHWA's conformity determination. **An AQCA is needed.** See the AQCA Annotated Outline.

Date of FHWA air quality conformity determination: _____

Go to Step 17.

Step 17. STOP as all air quality conformity requirements have been met.

Signature:

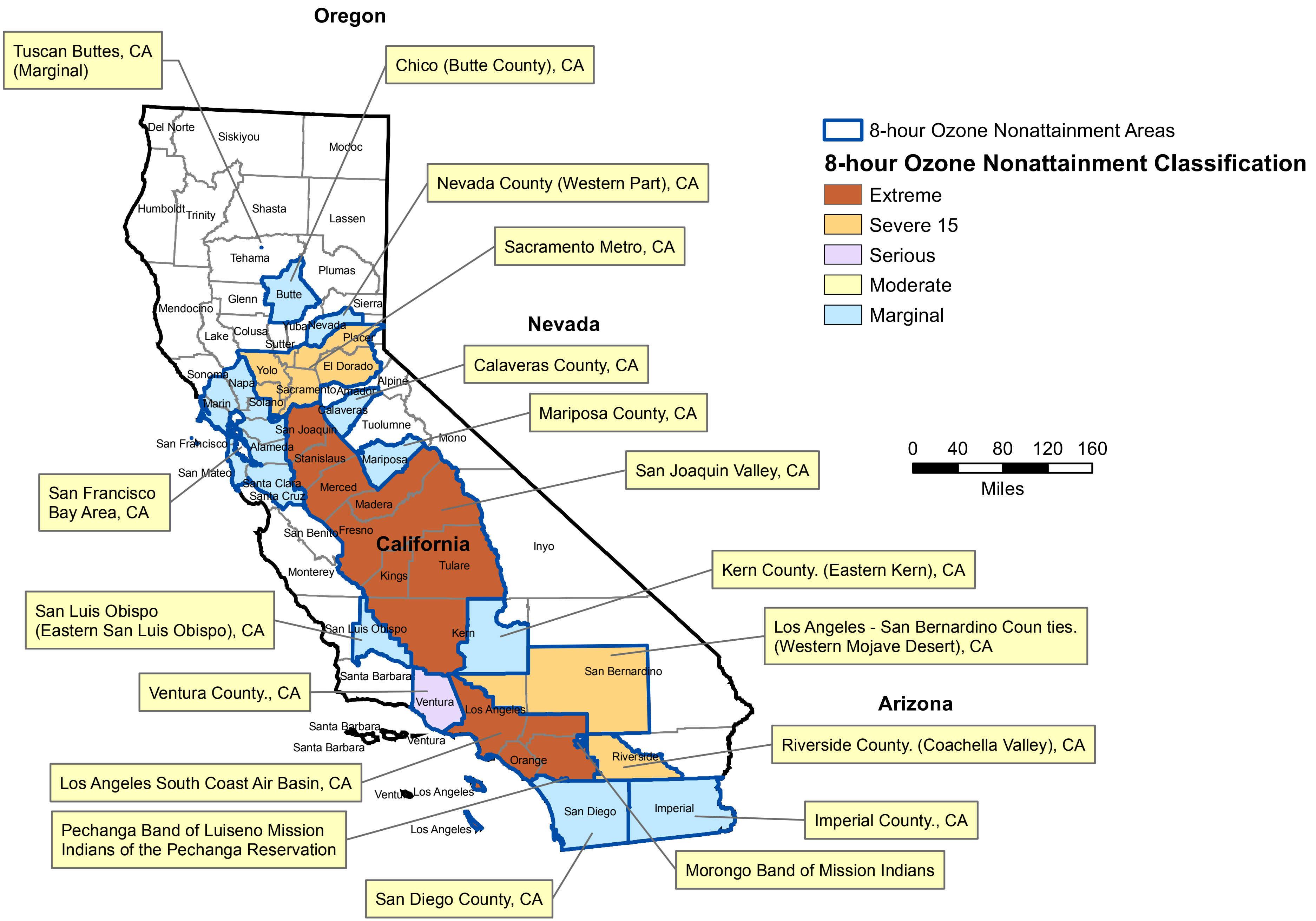
Printed Name: _____ **Date:** _____

Title: _____

Appendix B. Ozone and PM2.5 Nonattainment Maps

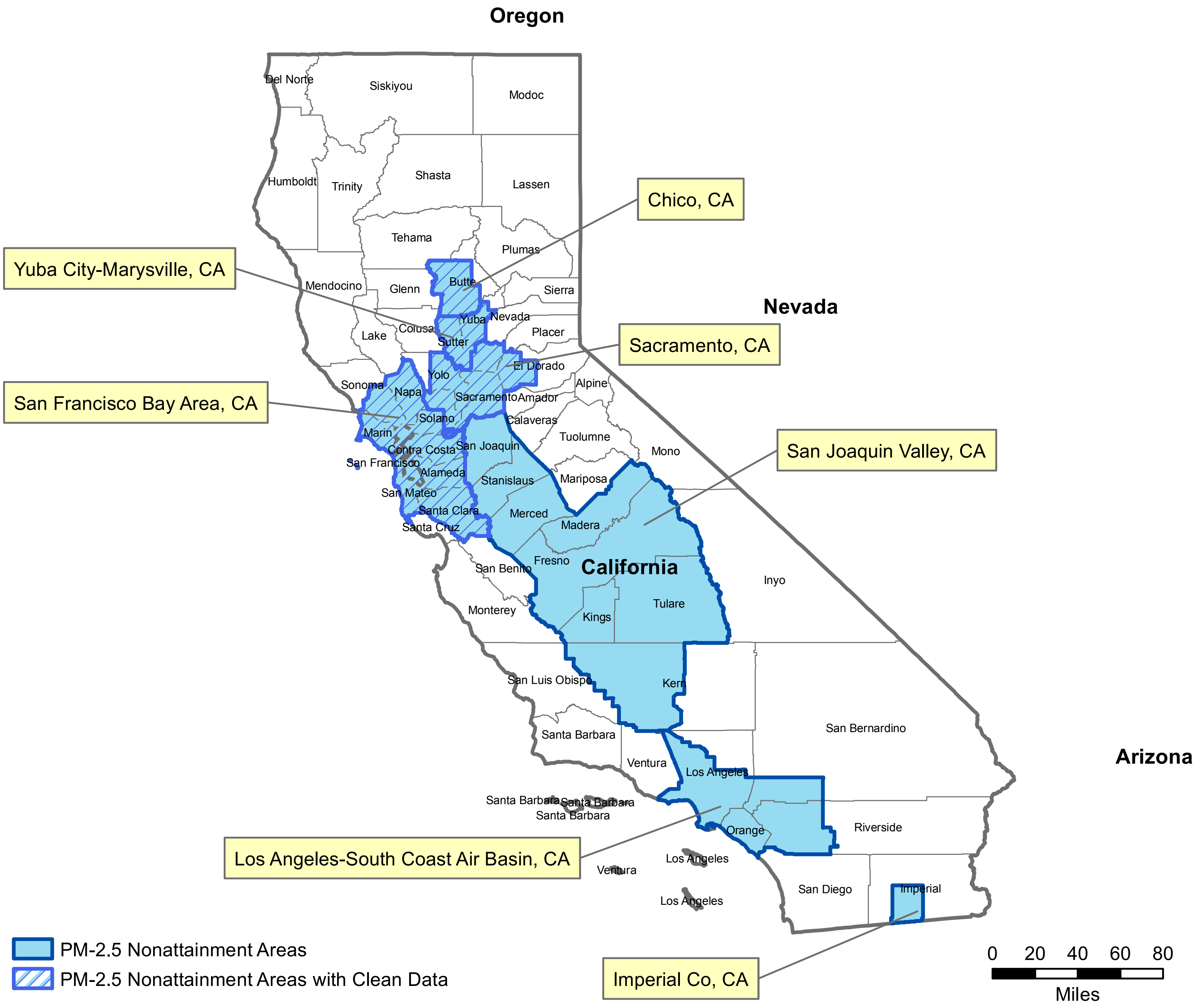
California 8-hour Ozone Nonattainment Areas (2008 Standard)

12/05/2013



California PM-2.5 Nonattainment Areas (2006 Standard)

12/05/2013



Appendix C. Public Review Comments and Responses Related to Air Quality Conformity

Appendix C will be completed after public comment regarding the conformity analysis is conducted as part of public circulation of the draft NEPA document (expected summer 2016). The completed appendix will be included in the Final AQCA.

Appendix D. 2036 MTP/2015-2018 MTIP Project Listing and Federal Approval Letters

Appendix D will be completed after adoption and approval of the 2036 MTP/SCS and the 2015-2018 MTIP (expected early 2016). The completed appendix will be included in the Final AQCA.

Appendix E. Documentation Related to Regional Conformity

Appendix E will be completed after adoption and approval of the 2036 MTP/SCS and the 2015-2018 MTIP (expected early 2016). The completed appendix will be included in the Final AQCA.

Appendix F. Carbon Monoxide Hot-Spot Analysis Modeling Procedures

The ambient air quality effects of traffic emissions related to the Interstate 80/State Route 65 Interchange Improvements Project were evaluated using the CALINE4 dispersion model (Benson 1989) and the modeling procedures described below. These procedures are based on Appendix B of the California Department of Transportation (Caltrans)/University of California, Davis CO Protocol.

F.1 Roadway and Traffic Conditions

Traffic volumes and operating conditions used in the modeling were obtained from the traffic analysis prepared for this project. Carbon monoxide (CO) modeling was conducted using p.m. traffic volumes. The peak hour used was chosen to represent the one with the most stable meteorological conditions.

CO modeling was performed for the following scenarios.

1. Existing (2012).
2. Construction Year (2020) without project (no build).
3. Construction Year (2020) with project (build).
4. Design Year (2040) without project.
5. Design Year (2040) with project.

Traffic data provided by Fehr & Peers (2014) indicates that peak-period volumes and delay at the affected intersections would typically be highest under Alternative 3. Accordingly, CO concentrations were modeled for Alternative 3 to evaluate the highest potential CO impacts of all build alternatives (scenarios #3 and #5). Since congestion and traffic volumes are forecasted to be lower under Alternatives 1 and 2, CO concentrations under these alternatives would likewise be lower than those estimated for Alternative 3.

F.2 Vehicle Emission Rates

Vehicle emission rates were determined using the California Air Resources Board's EMFAC2011 emission rate program. Free flow traffic speeds were adjusted to a speed of 5.0 miles per hour (mph) for vehicles entering and exiting intersection segments to represent a worst-case scenario, as 5 mph is the lowest speed EMFAC allows. EMFAC2011 modeling procedures followed the guidelines recommended by Caltrans. The program assumed Placer County regional traffic data, averaged for each subarea, operating during the winter months. A January low temperature of 39° F was assumed.

F.3 Receptor Locations

CO concentrations were estimated at four receptor locations located near the most congested intersections affected by the project.

1. Stanford Ranch Road / Five Star Boulevard
2. Creekside Ridge Drive / Roseville Parkway
3. Taylor Road / Roseville Parkway
4. I-80 eastbound / Eureka Road / Taylor Road

Receptors were chosen based on Caltrans' CO Protocol. Figure 2 shows the modeling network and receptors used for the proposed interchange analysis. Receptor heights were set at 6 feet (1.8 meters). U.S. Environmental Protection Agency modeling guidance suggests that receptors normally be chosen to be around breathing height (1.8 meters).

F.4 Meteorological Conditions

Meteorological inputs to the CALINE4 model were determined using the methodology recommended in the CO Protocol (Garza et al. 1997). The meteorological conditions used in the modeling represent a calm winter period. The worst-case wind angles option was used to determine a worst-case concentration for each receptor. The meteorological inputs are listed below.

1. 0.5 meters per second wind speed (1.64 feet per second) wind speed.,
2. G stability class ground-level temperature inversion.
3. 5 degree wind direction standard deviation.
4. 1.8 meters (5.9 feet) mixing height.

F.5 Background Concentrations and Eight-Hour Values

A background concentration of 2.5 parts per million (ppm) was added to the modeled 1-hour values to account for sources of CO not included in the modeling. Eight-hour modeled values were calculated from the 1-hour values using a persistence factor of 0.7. A background concentration of 1.5 ppm was added to the modeled 8-hour values. All background concentration data were taken from the North Highlands-Blackfoot Way monitoring station from 2010 through 2012 (California Air Resources Board 2014; U.S. Environmental Protection Agency 2013c).

The CO air quality modeling results are shown in Table 2.

Table 2. CO Modeling Results (in Parts Per Million)

Intersection	Receptor[a]	Existing (2012)		Construction Year (2020) No Build		Construction Year (2020) Alternative 3		Design Year (2040) No Build		Design Year (2040) Alternative 3	
		1-hr CO[b]	8-hr CO[c]	1-hr CO[b]	8-hr CO[c]	1-hr CO[b]	8-hr CO[c]	1-hr CO[b]	8-hr CO[c]	1-hr CO[b]	8-hr CO[c]
Stanford Ranch Road / Five Star Blvd	1	4.9	3.2	3.7	2.4	3.7	2.4	3.0	1.9	3.1	1.9
	2	5.2	3.4	3.9	2.5	3.9	2.5	3.1	1.9	3.2	2.0
	3	6.0	4.0	4.4	2.9	4.3	2.8	3.3	2.1	3.4	2.2
	4	5.8	3.8	4.3	2.8	4.2	2.7	3.3	2.1	3.4	2.2
Creekside Ridge Drive / Roseville Pkwy	5	7.1	4.7	4.9	3.2	4.5	2.9	3.6	2.3	3.5	2.2
	6	6.8	4.5	4.7	3.1	4.4	2.9	3.5	2.2	3.5	2.2
	7	6.3	4.2	4.4	2.9	4.1	2.6	3.3	2.1	3.3	2.1
	8	5.4	3.6	4.1	2.6	3.9	2.5	3.2	2.0	3.2	2.0
Taylor Road / Roseville Pkwy	9	6.4	4.3	4.5	2.9	4.6	3.0	3.6	2.3	3.6	2.3
	10	6.1	4.0	4.3	2.8	4.3	2.8	3.5	2.2	3.5	2.2
	11	5.6	3.7	4.1	2.6	4.1	2.6	3.4	2.2	3.4	2.2
	12	5.2	3.4	3.9	2.5	4.0	2.6	3.3	2.1	3.3	2.1
I-80 EB / Eureka Road / Taylor Road	13	5.8	3.8	4.4	2.9	4.5	2.9	3.2	2.0	3.5	2.2
	14	5.9	3.9	4.6	3.0	4.7	3.1	3.3	2.1	3.6	2.3
	15	5.7	3.8	4.3	2.8	4.4	2.9	3.2	2.0	3.5	2.2
	16	5.3	3.5	3.9	2.5	4.0	2.6	3.1	1.9	4.3	2.8

[a] Receptors are located at 3 meters from the intersection, at each of the four corners. All intersections modeled have two intersecting roadways.

[b] Average 1-hour background concentration between 2010 and 2012 was 2.5 ppm (California Air Resources Board 2014).

[c] Average 8-hour background concentration between 2010 and 2012 was 1.5 ppm (U.S. Environmental Protection Agency 2013c).

[d] This intersection does not exist under future years, regardless of alternative.

[e] This intersection only exists under future years, regardless of alternative.

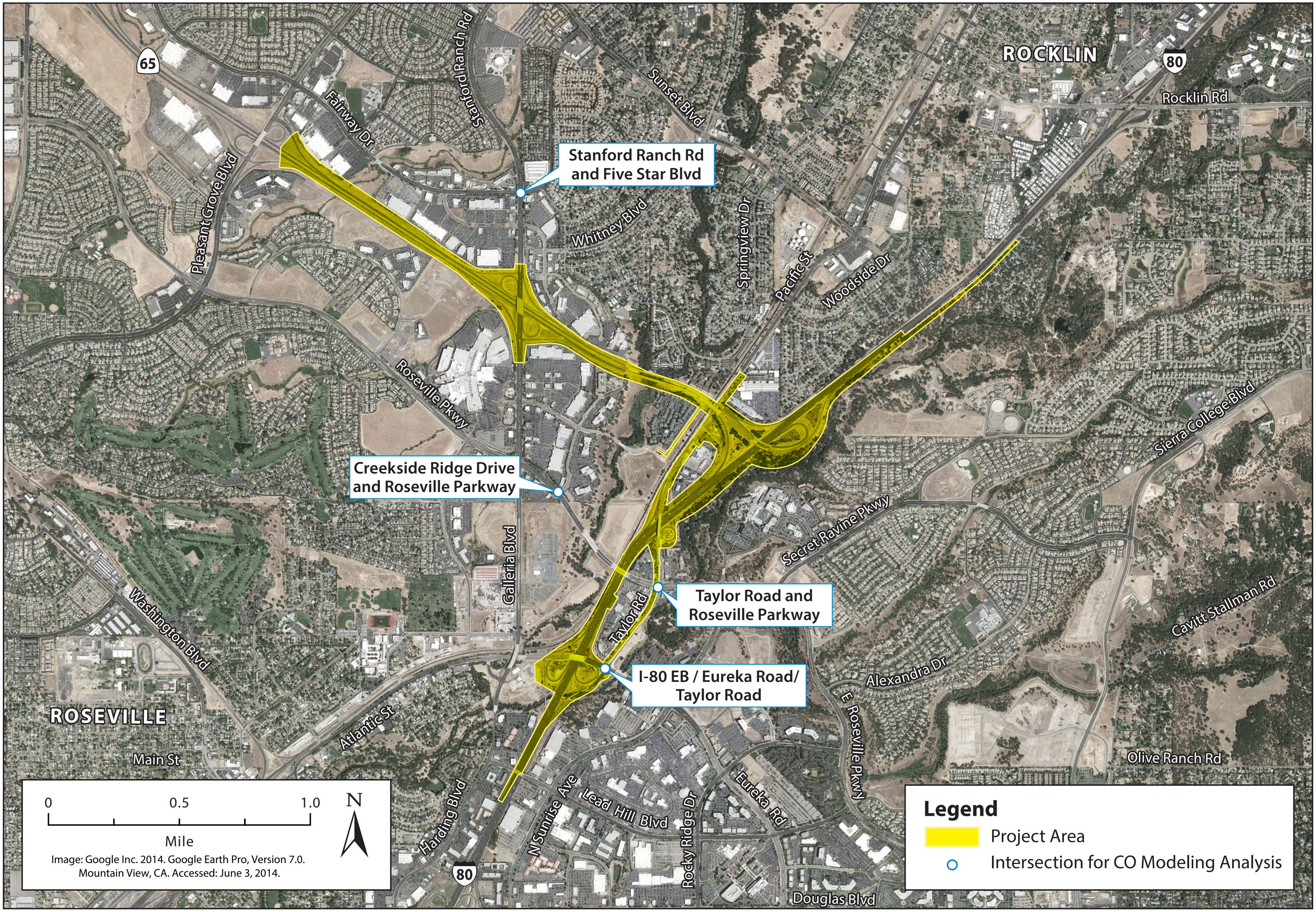


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Figure 2
CO Modeling Network and Receptors

Appendix G. CO Modeling Data and Output Reports

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   1


            RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=   0.5 M/S             Z0= 100. CM            ALT=    42. (M)
       BRG= WORST CASE            VD=  0.0 CM/S
      CLAS=     7 (G)            VS=  0.0 CM/S
      MIXH= 1000. M              AMB=  0.0 PPM
     SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


   II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *             EF     H     W
    DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
  ----------------*-------------------------*-----------------------------
  A. Link_1       * -1000    -7     0    -7 *  AG   2045   1.8    1.0  20.6
  B. Link_2       *     0    -4  1000    -4 *  AG   2110   1.8    1.0  13.3
  C. Link_3       *  1000     9     0     9 *  AG   2945   1.8    1.0  24.3
  D. Link_4       *     0     7 -1000     7 *  AG   3330   1.8    1.0  20.6
  E. Link_5       *    -5  1000    -5     0 *  AG    795   1.8    1.0  17.0
  F. Link_6       *     0     0     0 -1000 *  AG    340   1.8    1.0  10.0
  G. Link_7       *     4 -1000     4     0 *  AG    995   1.8    1.0  13.3
  H. Link_8       *     4     0     4  1000 *  AG   1000   1.8    1.0  13.3


  III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
  ------------*---------------------
  1. R_001    *    -15     19   1.8
  2. R_002    *     11    -11   1.8
  3. R_003    *     11     22   1.8
  4. R_004    *     -7    -19   1.8


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```
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *               CONC/LINK
             *  BRG  * CONC  *                 (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   96. *   1.0 *  0.0  0.2  0.6  0.1  0.1  0.0  0.0  0.1
  2. R_002    *  276. *   1.0 *  0.5  0.1  0.0  0.4  0.0  0.0  0.1  0.0
  3. R_003    *  262. *   0.9 *  0.2  0.0  0.1  0.5  0.1  0.0  0.0  0.1
  4. R_004    *    4. *   0.8 *  0.2  0.0  0.0  0.2  0.2  0.0  0.0  0.2


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EXIT
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         CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                  JUNE 1989 VERSION
                  PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

        U=   0.5 M/S            Z0= 100. CM           ALT=    42. (M)
      BRG= WORST CASE           VD=  0.0 CM/S
     CLAS=     7 (G)            VS=  0.0 CM/S
     MIXH= 1000. M             AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


 II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *             EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000   -11     0   -11 *  AG   2375   1.8    1.0  27.9
 B. Link_2       *     0    -5  1000    -5 *  AG   2620   1.8    1.0  17.0
 C. Link_3       *  1000    11     0    11 *  AG   3375   1.8    1.0  27.9
 D. Link_4       *     0     7 -1000     7 *  AG   3205   1.8    1.0  20.6
 E. Link_5       *    -9  1000    -9     0 *  AG    865   1.8    1.0  24.3
 F. Link_6       *    -4     0    -4 -1000 *  AG    715   1.8    1.0  13.3
 G. Link_7       *     9 -1000     9     0 *  AG   1160   1.8    1.0  24.3
 H. Link_8       *     4     0     4  1000 *  AG   1235   1.8    1.0  13.3


 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -22     18   1.8
 2. R_002    *     22    -15   1.8
 3. R_003    *     11     25   1.8
 4. R_004    *    -11    -26   1.8


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           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
          POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

                *       * PRED  *               CONC/LINK
                *  BRG  * CONC  *                  (PPM)
   RECEPTOR     * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
  -------------*-------*-------*----------------------------------------
   1. R_001     *   95. *   1.1 *  0.0  0.2  0.6  0.2  0.1  0.0  0.0  0.1
   2. R_002     *  276. *   1.0 *  0.4  0.2  0.0  0.3  0.0  0.0  0.1  0.0
   3. R_003     *  261. *   0.9 *  0.2  0.0  0.1  0.4  0.1  0.0  0.0  0.1
   4. R_004     *   81. *   0.8 *  0.0  0.3  0.3  0.0  0.0  0.1  0.1  0.0


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 EXIT
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1


            RUN: CALINE4 RUN      (WORST CASE ANGLE)
      POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

        U=   0.5 M/S            Z0= 100. CM           ALT=    42. (M)
      BRG= WORST CASE           VD=  0.0 CM/S
     CLAS=     7 (G)            VS=  0.0 CM/S
     MIXH= 1000. M              AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000    -5     0    -5 *  AG   2210   1.8    1.0  17.0
 B. Link_2       *     0    -2  1000    -2 *  AG   2375   1.8    1.0  10.0
 C. Link_3       *  1000     5     0     5 *  AG   3205   1.8    1.0  17.0
 D. Link_4       *     0     4 -1000     4 *  AG   2965   1.8    1.0  13.3
 E. Link_5       *    -7  1000    -7     0 *  AG    410   1.8    1.0  20.6
 F. Link_6       *    -5     0    -5 -1000 *  AG     60   1.8    1.0  17.0
 G. Link_7       *     9 -1000     9     0 *  AG     50   1.8    1.0  24.3
 H. Link_8       *     5     0     5  1000 *  AG    475   1.8    1.0  17.0


 III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -18     10   1.8
 2. R_002    *     22     -7   1.8
 3. R_003    *     14     14   1.8
 4. R_004    *    -15    -15   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              J
              RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                CONC/LINK
             *  BRG  * CONC  *                  (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
  -------------*-------*-------*----------------------------------------
   1. R_001    *   95. *   1.3 *  0.0  0.3  0.6  0.3  0.0  0.0  0.0  0.0
   2. R_002    *   83. *   1.2 *  0.0  0.7  0.5  0.0  0.0  0.0  0.0  0.0
   3. R_003    *  262. *   1.0 *  0.3  0.0  0.2  0.5  0.0  0.0  0.0  0.0
   4. R_004    *  277. *   0.9 *  0.5  0.0  0.0  0.3  0.0  0.0  0.0  0.0


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 EXIT
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   1


            RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=   0.5 M/S           Z0= 100. CM          ALT=    42. (M)
       BRG= WORST CASE          VD=  0.0 CM/S
      CLAS=     7 (G)           VS=  0.0 CM/S
      MIXH= 1000. M            AMB=  0.0 PPM
     SIGTH=   10. DEGREES     TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
  ----------------*-------------------------*------------------------------
  A. Link_1       * -1000    -7     0    -7 *  AG   1276   1.8    1.0  20.6
  B. Link_2       *     0    -4  1000    -4 *  AG   1439   1.8    1.0  13.3
  C. Link_3       *  1000     9     0     9 *  AG   1913   1.8    1.0  24.3
  D. Link_4       *     0     7 -1000     7 *  AG   2264   1.8    1.0  20.6
  E. Link_5       *    -5  1000    -5     0 *  AG    687   1.8    1.0  17.0
  F. Link_6       *     0     0     0 -1000 *  AG    229   1.8    1.0  10.0
  G. Link_7       *     4 -1000     4     0 *  AG    942   1.8    1.0  13.3
  H. Link_8       *     4     0     4  1000 *  AG    886   1.8    1.0  13.3


  III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
  ------------*---------------------
  1. R_001    *    -15     19   1.8
  2. R_002    *     11    -11   1.8
  3. R_003    *     11     22   1.8
  4. R_004    *     -7    -19   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

              *       * PRED  *                CONC/LINK
              *  BRG  * CONC  *                  (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   96. *   0.7 *  0.0  0.2  0.4  0.1  0.1  0.0  0.0  0.1
  2. R_002    *  276. *   0.8 *  0.3  0.0  0.0  0.3  0.0  0.0  0.1  0.0
  3. R_003    *  262. *   0.7 *  0.1  0.0  0.0  0.4  0.1  0.0  0.0  0.1
  4. R_004    *    4. *   0.6 *  0.1  0.0  0.0  0.1  0.2  0.0  0.0  0.2


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EXIT
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=   0.5 M/S             Z0= 100. CM            ALT=    42. (M)
      BRG= WORST CASE            VD=  0.0 CM/S
     CLAS=     7 (G)             VS=  0.0 CM/S
     MIXH= 1000. M              AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
-----------------*-------------------------*------------------------------
 A. Link_1       * -1000   -11     0   -11 *  AG   2245   1.8    1.0  27.9
 B. Link_2       *     0    -5  1000    -5 *  AG   2805   1.8    1.0  17.0
 C. Link_3       *  1000    11     0    11 *  AG   3380   1.8    1.0  27.9
 D. Link_4       *     0     7 -1000     7 *  AG   2900   1.8    1.0  20.6
 E. Link_5       *    -9  1000    -9     0 *  AG   1140   1.8    1.0  24.3
 F. Link_6       *    -4     0    -4 -1000 *  AG    690   1.8    1.0  13.3
 G. Link_7       *     9 -1000     9     0 *  AG    995   1.8    1.0  24.3
 H. Link_8       *     4     0     4  1000 *  AG   1365   1.8    1.0  13.3


 III.  RECEPTOR LOCATIONS

           *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
-------------*---------------------
 1. R_001    *    -22     18   1.8
 2. R_002    *     22    -15   1.8
 3. R_003    *     11     25   1.8
 4. R_004    *    -11    -26   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                CONC/LINK
             *  BRG  * CONC  *                   (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   95. *   1.1 *  0.0  0.2  0.6  0.1  0.1  0.0  0.0  0.1
  2. R_002    *   83. *   1.0 *  0.0  0.7  0.3  0.0  0.0  0.0  0.0  0.0
  3. R_003    *  261. *   0.9 *  0.2  0.0  0.1  0.4  0.1  0.0  0.0  0.1
  4. R_004    *   81. *   0.8 *  0.0  0.3  0.3  0.0  0.0  0.1  0.1  0.0


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EXIT
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                  JUNE 1989 VERSION
                  PAGE   1


              RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

        U=   0.5 M/S             Z0= 100. CM            ALT=    42. (M)
      BRG= WORST CASE            VD=  0.0 CM/S
     CLAS=     7 (G)             VS=  0.0 CM/S
     MIXH= 1000. M              AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000    -5     0    -5 *  AG   1695   1.8    1.0  17.0
 B. Link_2       *     0    -2  1000    -2 *  AG   1920   1.8    1.0  10.0
 C. Link_3       *  1000     5     0     5 *  AG   2645   1.8    1.0  17.0
 D. Link_4       *     0     4 -1000     4 *  AG   2445   1.8    1.0  13.3
 E. Link_5       *    -7  1000    -7     0 *  AG    395   1.8    1.0  20.6
 F. Link_6       *    -5     0    -5 -1000 *  AG     50   1.8    1.0  17.0
 G. Link_7       *     9 -1000     9     0 *  AG     50   1.8    1.0  24.3
 H. Link_8       *     5     0     5  1000 *  AG    370   1.8    1.0  17.0


 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -18     10   1.8
 2. R_002    *     22     -7   1.8
 3. R_003    *     14     14   1.8
 4. R_004    *    -15    -15   1.8


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```
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   2

              J
              RUN: CALINE4 RUN      (WORST CASE ANGLE)
          POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

              *       * PRED  *              CONC/LINK
              *  BRG  * CONC  *                 (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
  -------------*-------*-------*---------------------------------------
   1. R_001    *   95. *   1.1 *  0.0  0.3  0.5  0.2  0.0  0.0  0.0  0.0
   2. R_002    *   83. *   1.0 *  0.0  0.6  0.4  0.0  0.0  0.0  0.0  0.0
   3. R_003    *  262. *   0.8 *  0.2  0.0  0.1  0.4  0.0  0.0  0.0  0.0
   4. R_004    *  277. *   0.7 *  0.4  0.0  0.0  0.3  0.0  0.0  0.0  0.0


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 EXIT
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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=   0.5 M/S             Z0= 100. CM            ALT=    42. (M)
       BRG= WORST CASE            VD=  0.0 CM/S
      CLAS=     7 (G)             VS=  0.0 CM/S
      MIXH= 1000. M              AMB=  0.0 PPM
     SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *    X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
  ----------------*-------------------------*------------------------------
  A. Link_1       * -1000    -5     0    -5 *  AG    485   1.8    1.0  17.0
  B. Link_2       *     0    -4  1000    -4 *  AG    610   1.8    1.0  13.3
  C. Link_3       *  1000     5     0     5 *  AG    680   1.8    1.0  17.0
  D. Link_4       *     0     4 -1000     4 *  AG    635   1.8    1.0  13.3
  E. Link_5       *   -11  1000   -11     0 *  AG   1600   1.8    1.0  27.9
  F. Link_6       *    -4     0    -4 -1000 *  AG   1995   1.8    1.0  13.3
  G. Link_7       *    11 -1000    11     0 *  AG   2510   1.8    1.0  27.9
  H. Link_8       *     5     0     5  1000 *  AG   2035   1.8    1.0  17.0


  III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
  ------------*---------------------
  1. R_001    *    -26     11   1.8
  2. R_002    *     25    -11   1.8
  3. R_003    *     14     14   1.8
  4. R_004    *    -11    -15   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                 CONC/LINK
            *  BRG  * CONC  *                   (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *  171. *   0.6 *  0.0  0.0  0.0  0.1  0.0  0.2  0.2  0.0
  2. R_002    *  187. *   0.7 *  0.0  0.0  0.0  0.0  0.0  0.2  0.5  0.0
  3. R_003    *  184. *   0.9 *  0.0  0.0  0.1  0.0  0.0  0.2  0.5  0.1
  4. R_004    *  173. *   0.9 *  0.0  0.0  0.0  0.0  0.0  0.5  0.3  0.0


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 EXIT
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=   0.5 M/S             Z0= 100. CM            ALT=    42. (M)
      BRG= WORST CASE            VD=  0.0 CM/S
     CLAS=     7 (G)             VS=  0.0 CM/S
     MIXH= 1000. M              AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000    -5     0    -5 *  AG    470   1.8    1.0  17.0
 B. Link_2       *     0    -4  1000    -4 *  AG    565   1.8    1.0  13.3
 C. Link_3       *  1000     5     0     5 *  AG    695   1.8    1.0  17.0
 D. Link_4       *     0     4 -1000     4 *  AG    625   1.8    1.0  13.3
 E. Link_5       *   -11  1000   -11     0 *  AG   1525   1.8    1.0  27.9
 F. Link_6       *    -4     0    -4 -1000 *  AG   1885   1.8    1.0  13.3
 G. Link_7       *    11 -1000    11     0 *  AG   2250   1.8    1.0  27.9
 H. Link_8       *     5     0     5  1000 *  AG   1865   1.8    1.0  17.0


 III.  RECEPTOR LOCATIONS

           *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -26     11   1.8
 2. R_002    *     25    -11   1.8
 3. R_003    *     14     14   1.8
 4. R_004    *    -11    -15   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   2


            RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

              *       * PRED  *              CONC/LINK
              *  BRG  * CONC  *                (PPM)
  RECEPTOR    * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *  171. *   0.5 *  0.0  0.0  0.0  0.1  0.0  0.2  0.2  0.0
  2. R_002    *  187. *   0.6 *  0.0  0.0  0.0  0.0  0.0  0.2  0.5  0.0
  3. R_003    *  185. *   0.8 *  0.0  0.0  0.1  0.0  0.0  0.2  0.4  0.1
  4. R_004    *  173. *   0.8 *  0.0  0.0  0.0  0.0  0.0  0.5  0.3  0.0


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EXIT
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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

          U=   0.5 M/S             Z0= 100. CM            ALT=    42. (M)
        BRG= WORST CASE            VD=  0.0 CM/S
       CLAS=     7 (G)             VS=  0.0 CM/S
       MIXH= 1000. M              AMB=  0.0 PPM
      SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


   II.  LINK VARIABLES

       LINK      *  LINK COORDINATES (M)   *              EF     H     W
    DESCRIPTION  *    X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
   ----------------*-------------------------*------------------------------
   A. Link_1       * -1000    -7     0    -7 *  AG   1675   4.0    1.0  20.6
   B. Link_2       *     0    -4  1000    -4 *  AG   1945   4.0    1.0  13.3
   C. Link_3       *  1000     9     0     9 *  AG   2445   4.0    1.0  24.3
   D. Link_4       *     0     7 -1000     7 *  AG   3045   4.0    1.0  20.6
   E. Link_5       *    -5  1000    -5     0 *  AG    540   4.0    1.0  17.0
   F. Link_6       *     0     0     0 -1000 *  AG    230   4.0    1.0  10.0
   G. Link_7       *     4 -1000     4     0 *  AG   1445   4.0    1.0  13.3
   H. Link_8       *     4     0     4  1000 *  AG    885   4.0    1.0  13.3


   III.  RECEPTOR LOCATIONS

              *    COORDINATES (M)
    RECEPTOR  *    X      Y      Z
   ------------*---------------------
   1. R_001    *    -15     19   1.8
   2. R_002    *     11    -11   1.8
   3. R_003    *     11     22   1.8
   4. R_004    *     -7    -19   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


    IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

               *       * PRED  *               CONC/LINK
               *  BRG  * CONC  *                 (PPM)
    RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
  -------------*-------*-------*----------------------------------------
   1. R_001    *   96. *   2.0 *  0.0  0.5  1.1  0.2  0.1  0.0  0.0  0.1
   2. R_002    *  276. *   2.2 *  0.8  0.1  0.0  0.8  0.0  0.0  0.3  0.0
   3. R_003    *  262. *   1.9 *  0.4  0.0  0.1  1.1  0.1  0.0  0.0  0.2
   4. R_004    *   82. *   1.5 *  0.0  0.6  0.6  0.0  0.0  0.1  0.3  0.0


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 EXIT
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=   0.5 M/S            Z0= 100. CM           ALT=    42. (M)
      BRG= WORST CASE           VD=  0.0 CM/S
     CLAS=     7 (G)            VS=  0.0 CM/S
     MIXH= 1000. M             AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000   -11     0   -11 *  AG   1620   4.0    1.0  27.9
 B. Link_2       *     0    -5  1000    -5 *  AG   2195   4.0    1.0  17.0
 C. Link_3       *  1000    11     0    11 *  AG   2730   4.0    1.0  27.9
 D. Link_4       *     0     7 -1000     7 *  AG   2010   4.0    1.0  20.6
 E. Link_5       *    -9  1000    -9     0 *  AG   1050   4.0    1.0  24.3
 F. Link_6       *    -4     0    -4 -1000 *  AG    465   4.0    1.0  13.3
 G. Link_7       *     9 -1000     9     0 *  AG    865   4.0    1.0  24.3
 H. Link_8       *     4     0     4  1000 *  AG   1595   4.0    1.0  13.3


 III.  RECEPTOR LOCATIONS

           *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -22     18   1.8
 2. R_002    *     22    -15   1.8
 3. R_003    *     11     25   1.8
 4. R_004    *    -11    -26   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   95. *   2.1 *  0.0  0.5  1.1  0.2  0.2  0.0  0.0  0.2
  2. R_002    *   83. *   1.8 *  0.0  1.2  0.6  0.0  0.0  0.0  0.0  0.0
  3. R_003    *  261. *   1.6 *  0.3  0.0  0.1  0.6  0.2  0.0  0.0  0.4
  4. R_004    *    5. *   1.5 *  0.3  0.0  0.0  0.2  0.4  0.1  0.0  0.5


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EXIT
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   1


            RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=   0.5 M/S             Z0= 100. CM           ALT=    42. (M)
       BRG= WORST CASE           VD=  0.0 CM/S
      CLAS=     7 (G)            VS=  0.0 CM/S
      MIXH= 1000. M              AMB=  0.0 PPM
     SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ---------------*-------------------------*------------------------------
 A. Link_1      * -1000    -5     0    -5 *  AG   1540   4.0    1.0  17.0
 B. Link_2      *     0    -2  1000    -2 *  AG   1615   4.0    1.0  10.0
 C. Link_3      *  1000     5     0     5 *  AG   2010   4.0    1.0  17.0
 D. Link_4      *     0     4 -1000     4 *  AG   1955   4.0    1.0  13.3
 E. Link_5      *    -7  1000    -7     0 *  AG    375   4.0    1.0  20.6
 F. Link_6      *    -5     0    -5 -1000 *  AG     55   4.0    1.0  17.0
 G. Link_7      *     9 -1000     9     0 *  AG     45   4.0    1.0  24.3
 H. Link_8      *     5     0     5  1000 *  AG    345   4.0    1.0  17.0


 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -18     10   1.8
 2. R_002    *     22     -7   1.8
 3. R_003    *     14     14   1.8
 4. R_004    *    -15    -15   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   2


            RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *              CONC/LINK
            *  BRG  * CONC  *                 (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   95. *   2.0 *  0.0  0.5  1.0  0.4  0.1  0.0  0.0  0.0
  2. R_002    *   84. *   1.9 *  0.0  1.1  0.8  0.0  0.0  0.0  0.0  0.0
  3. R_003    *  263. *   1.6 *  0.5  0.0  0.2  0.8  0.1  0.0  0.0  0.1
  4. R_004    *  277. *   1.4 *  0.9  0.0  0.0  0.5  0.0  0.0  0.0  0.0


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 EXIT
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```
            CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                     JUNE 1989 VERSION
                     PAGE   1


               RUN: CALINE4 RUN      (WORST CASE ANGLE)
          POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

           U=   0.5 M/S            Z0= 100. CM           ALT=    42. (M)
         BRG= WORST CASE           VD=  0.0 CM/S
        CLAS=     7 (G)            VS=  0.0 CM/S
        MIXH= 1000. M             AMB=  0.0 PPM
       SIGTH=   10. DEGREES      TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

        LINK      *  LINK COORDINATES (M)   *              EF     H     W
     DESCRIPTION  *    X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
  ----------------*-------------------------*------------------------------
  A. Link_1       * -1000    -5     0    -5 *  AG    480   4.0    1.0  17.0
  B. Link_2       *     0    -4  1000    -4 *  AG    475   4.0    1.0  13.3
  C. Link_3       *  1000     5     0     5 *  AG    570   4.0    1.0  17.0
  D. Link_4       *     0     4 -1000     4 *  AG    660   4.0    1.0  13.3
  E. Link_5       *   -11  1000   -11     0 *  AG   1135   4.0    1.0  27.9
  F. Link_6       *    -4     0    -4 -1000 *  AG   1685   4.0    1.0  13.3
  G. Link_7       *    11 -1000    11     0 *  AG   2355   4.0    1.0  27.9
  H. Link_8       *     5     0     5  1000 *  AG   1720   4.0    1.0  17.0


  III.  RECEPTOR LOCATIONS

              *    COORDINATES (M)
    RECEPTOR  *    X      Y      Z
  ------------*---------------------
  1. R_001    *    -26     11   1.8
  2. R_002    *     25    -11   1.8
  3. R_003    *     14     14   1.8
  4. R_004    *    -11    -15   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                CONC/LINK
             *  BRG  * CONC  *                  (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *  171. *   1.2 *  0.1  0.0  0.0  0.2  0.0  0.4  0.4  0.0
  2. R_002    *  187. *   1.4 *  0.0  0.0  0.0  0.0  0.0  0.3  1.0  0.0
  3. R_003    *  184. *   1.8 *  0.0  0.1  0.1  0.0  0.0  0.4  1.0  0.2
  4. R_004    *  173. *   1.7 *  0.0  0.0  0.0  0.0  0.0  1.0  0.7  0.0


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EXIT
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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                  JUNE 1989 VERSION
                  PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=   0.5 M/S             Z0= 100. CM           ALT=    42. (M)
      BRG= WORST CASE           VD=  0.0 CM/S
     CLAS=     7 (G)            VS=  0.0 CM/S
     MIXH= 1000. M              AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
  ----------------*-------------------------*------------------------------
  A. Link_1       * -1000    -5     0    -5 *  AG   1695   4.0    1.0  17.0
  B. Link_2       *     0    -2  1000    -2 *  AG   1920   4.0    1.0  10.0
  C. Link_3       *  1000     5     0     5 *  AG   2645   4.0    1.0  17.0
  D. Link_4       *     0     4 -1000     4 *  AG   2445   4.0    1.0  13.3
  E. Link_5       *    -7  1000    -7     0 *  AG    395   4.0    1.0  20.6
  F. Link_6       *    -5     0    -5 -1000 *  AG     50   4.0    1.0  17.0
  G. Link_7       *     9 -1000     9     0 *  AG     50   4.0    1.0  24.3
  H. Link_8       *     5     0     5  1000 *  AG    370   4.0    1.0  17.0


  III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
  ------------*---------------------
  1. R_001    *    -18     10   1.8
  2. R_002    *     22     -7   1.8
  3. R_003    *     14     14   1.8
  4. R_004    *    -15    -15   1.8


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         CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   2


           RUN: CALINE4 RUN      (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *               CONC/LINK
             *  BRG  * CONC  *                  (PPM)
  RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   95. *   2.4 *  0.0  0.6  1.2  0.5  0.1  0.0  0.0  0.1
  2. R_002    *   83. *   2.2 *  0.0  1.2  1.0  0.0  0.0  0.0  0.0  0.0
  3. R_003    *  262. *   1.9 *  0.5  0.0  0.3  0.9  0.1  0.0  0.0  0.1
  4. R_004    *  277. *   1.6 *  1.0  0.0  0.0  0.6  0.0  0.0  0.0  0.0


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EXIT
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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=   0.5 M/S             Z0= 100. CM            ALT=    42. (M)
      BRG= WORST CASE            VD=  0.0 CM/S
     CLAS=     7 (G)             VS=  0.0 CM/S
     MIXH= 1000. M              AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
  ----------------*-------------------------*------------------------------
  A. Link_1       * -1000    -5     0    -5 *  AG    480   4.0    1.0  17.0
  B. Link_2       *     0    -4  1000    -4 *  AG    530   4.0    1.0  13.3
  C. Link_3       *  1000     5     0     5 *  AG    635   4.0    1.0  17.0
  D. Link_4       *     0     4 -1000     4 *  AG    670   4.0    1.0  13.3
  E. Link_5       *   -11  1000   -11     0 *  AG   1153   4.0    1.0  27.9
  F. Link_6       *    -4     0    -4 -1000 *  AG   1803   4.0    1.0  13.3
  G. Link_7       *    11 -1000    11     0 *  AG   2380   4.0    1.0  27.9
  H. Link_8       *     5     0     5  1000 *  AG   1645   4.0    1.0  17.0


  III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
  ------------*---------------------
  1. R_001    *    -26     11   1.8
  2. R_002    *     25    -11   1.8
  3. R_003    *     14     14   1.8
  4. R_004    *    -11    -15   1.8

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```
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                 CONC/LINK
             *  BRG  * CONC  *                   (PPM)
  RECEPTOR   * (DEG) * (PPM) *    A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *  171. *   1.2 *  0.1  0.0  0.0  0.2  0.0  0.5  0.5  0.0
  2. R_002    *  187. *   1.4 *  0.0  0.0  0.0  0.0  0.0  0.4  1.1  0.0
  3. R_003    *  184. *   1.9 *  0.0  0.1  0.1  0.0  0.0  0.5  1.0  0.2
  4. R_004    *  173. *   1.8 *  0.0  0.0  0.0  0.0  0.0  1.1  0.7  0.0


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EXIT
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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=   0.5 M/S             Z0= 100. CM           ALT=    42. (M)
       BRG= WORST CASE           VD=  0.0 CM/S
      CLAS=     7 (G)            VS=  0.0 CM/S
      MIXH= 1000. M              AMB=  0.0 PPM
     SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *    X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000    -7     0    -7 *  AG   1276   8.0    1.0  20.6
 B. Link_2       *     0    -4  1000    -4 *  AG   1439   8.0    1.0  13.3
 C. Link_3       *  1000     9     0     9 *  AG   1913   8.0    1.0  24.3
 D. Link_4       *     0     7 -1000     7 *  AG   2264   8.0    1.0  20.6
 E. Link_5       *    -5  1000    -5     0 *  AG    687   8.0    1.0  17.0
 F. Link_6       *     0     0     0 -1000 *  AG    229   8.0    1.0  10.0
 G. Link_7       *     4 -1000     4     0 *  AG    942   8.0    1.0  13.3
 H. Link_8       *     4     0     4  1000 *  AG    886   8.0    1.0  13.3


 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -15     19   1.8
 2. R_002    *     11    -11   1.8
 3. R_003    *     11     22   1.8
 4. R_004    *     -7    -19   1.8


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```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   96. *   3.3 *  0.0  0.7  1.8  0.3  0.3  0.0  0.0  0.3
  2. R_002    *  276. *   3.4 *  1.3  0.2  0.0  1.3  0.0  0.1  0.5  0.0
  3. R_003    *  262. *   3.2 *  0.6  0.0  0.2  1.7  0.2  0.0  0.0  0.4
  4. R_004    *    4. *   2.8 *  0.5  0.0  0.1  0.5  0.8  0.0  0.0  0.8


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 EXIT
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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1


              RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=   0.5 M/S            Z0= 100. CM           ALT=    42. (M)
       BRG= WORST CASE           VD=  0.0 CM/S
      CLAS=     7 (G)            VS=  0.0 CM/S
      MIXH= 1000. M             AMB=  0.0 PPM
     SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ---------------*-------------------------*-----------------------------
 A. Link_1      * -1000   -11     0   -11 *  AG   1835   8.0    1.0  27.9
 B. Link_2      *     0    -5  1000    -5 *  AG   1911   8.0    1.0  17.0
 C. Link_3      *  1000    11     0    11 *  AG   2585   8.0    1.0  27.9
 D. Link_4      *     0     7 -1000     7 *  AG   2433   8.0    1.0  20.6
 E. Link_5      *    -9  1000    -9     0 *  AG    569   8.0    1.0  24.3
 F. Link_6      *    -4     0    -4 -1000 *  AG    617   8.0    1.0  13.3
 G. Link_7      *     9 -1000     9     0 *  AG    886   8.0    1.0  24.3
 H. Link_8      *     4     0     4  1000 *  AG    914   8.0    1.0  13.3


 III.  RECEPTOR LOCATIONS

           *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -22     18   1.8
 2. R_002    *     22    -15   1.8
 3. R_003    *     11     25   1.8
 4. R_004    *    -11    -26   1.8


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```
        CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
               JUNE 1989 VERSION
               PAGE   2


           RUN: CALINE4 RUN      (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   95. *   3.9 *  0.0  0.9  2.0  0.5  0.2  0.0  0.0  0.2
  2. R_002    *  276. *   3.6 *  1.4  0.5  0.0  1.2  0.0  0.2  0.4  0.0
  3. R_003    *  261. *   3.1 *  0.8  0.0  0.2  1.5  0.2  0.0  0.0  0.5
  4. R_004    *   81. *   2.7 *  0.1  1.1  1.0  0.0  0.0  0.3  0.3  0.0


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EXIT
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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   1


          RUN: CALINE4 RUN      (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=   0.5 M/S            Z0= 100. CM           ALT=    42. (M)
      BRG= WORST CASE           VD=  0.0 CM/S
     CLAS=     7 (G)            VS=  0.0 CM/S
     MIXH= 1000. M             AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000    -7     0    -7 *  AG   1915   1.8    1.0  20.6
 B. Link_2       *     0    -4  1000    -4 *  AG   2145   1.8    1.0  13.3
 C. Link_3       *  1000     9     0     9 *  AG   2915   1.8    1.0  24.3
 D. Link_4       *     0     7 -1000     7 *  AG   3330   1.8    1.0  20.6
 E. Link_5       *    -5  1000    -5     0 *  AG    825   1.8    1.0  17.0
 F. Link_6       *     0     0     0 -1000 *  AG    340   1.8    1.0  10.0
 G. Link_7       *     4 -1000     4     0 *  AG   1335   1.8    1.0  13.3
 H. Link_8       *     4     0     4  1000 *  AG   1175   1.8    1.0  13.3


 III.  RECEPTOR LOCATIONS

           *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -15     19   1.8
 2. R_002    *     11    -11   1.8
 3. R_003    *     11     22   1.8
 4. R_004    *     -7    -19   1.8


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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *               CONC/LINK
             *  BRG  * CONC  *                 (PPM)
  RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
-------------*-------*-------*----------------------------------------
 1. R_001    *   96. *   1.0 *  0.0  0.2  0.6  0.1  0.1  0.0  0.0  0.1
 2. R_002    *  276. *   1.1 *  0.4  0.1  0.0  0.4  0.0  0.0  0.1  0.0
 3. R_003    *  262. *   1.0 *  0.2  0.0  0.1  0.5  0.1  0.0  0.0  0.1
 4. R_004    *    4. *   0.8 *  0.2  0.0  0.0  0.2  0.2  0.0  0.0  0.2


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EXIT
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           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   1


              RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=   0.5 M/S             Z0= 100. CM            ALT=    42. (M)
      BRG= WORST CASE           VD=  0.0 CM/S
     CLAS=     7 (G)            VS=  0.0 CM/S
     MIXH= 1000. M              AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000    -5     0    -5 *  AG   1890   1.8    1.0  17.0
 B. Link_2       *     0    -2  1000    -2 *  AG   1880   1.8    1.0  10.0
 C. Link_3       *  1000     5     0     5 *  AG   2355   1.8    1.0  17.0
 D. Link_4       *     0     4 -1000     4 *  AG   2260   1.8    1.0  13.3
 E. Link_5       *    -7  1000    -7     0 *  AG    355   1.8    1.0  20.6
 F. Link_6       *    -5     0    -5 -1000 *  AG     55   1.8    1.0  17.0
 G. Link_7       *     9 -1000     9     0 *  AG     45   1.8    1.0  24.3
 H. Link_8       *     5     0     5  1000 *  AG    450   1.8    1.0  17.0


 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -18     10   1.8
 2. R_002    *     22     -7   1.8
 3. R_003    *     14     14   1.8
 4. R_004    *    -15    -15   1.8


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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   2


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *               CONC/LINK
             *  BRG  * CONC  *                 (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   95. *   1.0 *  0.0  0.3  0.5  0.2  0.0  0.0  0.0  0.0
  2. R_002    *   83. *   1.0 *  0.0  0.6  0.4  0.0  0.0  0.0  0.0  0.0
  3. R_003    *  262. *   0.8 *  0.2  0.0  0.1  0.4  0.0  0.0  0.0  0.0
  4. R_004    *  277. *   0.7 *  0.5  0.0  0.0  0.3  0.0  0.0  0.0  0.0


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EXIT
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           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1


              RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=   0.5 M/S             Z0= 100. CM            ALT=    42. (M)
      BRG= WORST CASE            VD=  0.0 CM/S
     CLAS=     7 (G)             VS=  0.0 CM/S
     MIXH= 1000. M              AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


  II.  LINK VARIABLES

     LINK       *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *    X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000   -11     0   -11 *  AG   1880   1.8    1.0  27.9
 B. Link_2       *     0    -5  1000    -5 *  AG   2585   1.8    1.0  17.0
 C. Link_3       *  1000    11     0    11 *  AG   3325   1.8    1.0  27.9
 D. Link_4       *     0     7 -1000     7 *  AG   2350   1.8    1.0  20.6
 E. Link_5       *    -9  1000    -9     0 *  AG   1325   1.8    1.0  24.3
 F. Link_6       *    -4     0    -4 -1000 *  AG    675   1.8    1.0  13.3
 G. Link_7       *     9 -1000     9     0 *  AG    950   1.8    1.0  24.3
 H. Link_8       *     4     0     4  1000 *  AG   1870   1.8    1.0  13.3


 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -22     18   1.8
 2. R_002    *     22    -15   1.8
 3. R_003    *     11     25   1.8
 4. R_004    *    -11    -26   1.8


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```
         CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   2


            RUN: CALINE4 RUN      (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

              *       * PRED  *                 CONC/LINK
              *  BRG  * CONC  *                   (PPM)
   RECEPTOR   * (DEG) * (PPM) *    A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *   95. *   1.1 *  0.0  0.2  0.6  0.1  0.1  0.0  0.0  0.1
  2. R_002    *   83. *   1.0 *  0.0  0.6  0.3  0.0  0.0  0.0  0.0  0.0
  3. R_003    *  261. *   0.9 *  0.2  0.0  0.1  0.3  0.1  0.0  0.0  0.2
  4. R_004    *    5. *   0.8 *  0.2  0.0  0.0  0.1  0.2  0.1  0.0  0.3


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EXIT
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```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1


             RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

        U=   0.5 M/S            Z0= 100. CM           ALT=    42. (M)
      BRG= WORST CASE           VD=  0.0 CM/S
     CLAS=     7 (G)            VS=  0.0 CM/S
     MIXH= 1000. M             AMB=  0.0 PPM
    SIGTH=   10. DEGREES       TEMP=  3.9 DEGREE (C)


 II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * -1000    -5     0    -5 *  AG    470   1.8    1.0  17.0
 B. Link_2       *     0    -4  1000    -4 *  AG    610   1.8    1.0  13.3
 C. Link_3       *  1000     5     0     5 *  AG    710   1.8    1.0  17.0
 D. Link_4       *     0     4 -1000     4 *  AG    620   1.8    1.0  13.3
 E. Link_5       *   -11  1000   -11     0 *  AG   1690   1.8    1.0  27.9
 F. Link_6       *    -4     0    -4 -1000 *  AG   2095   1.8    1.0  13.3
 G. Link_7       *    11 -1000    11     0 *  AG   2425   1.8    1.0  27.9
 H. Link_8       *     5     0     5  1000 *  AG   1970   1.8    1.0  17.0


 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. R_001    *    -26     11   1.8
 2. R_002    *     25    -11   1.8
 3. R_003    *     14     14   1.8
 4. R_004    *    -11    -15   1.8


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```
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2


              RUN: CALINE4 RUN      (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

                *       * PRED  *                CONC/LINK
                *  BRG  * CONC  *                  (PPM)
   RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
 -------------*-------*-------*----------------------------------------
  1. R_001    *  171. *   0.6 *  0.0  0.0  0.0  0.1  0.0  0.2  0.2  0.0
  2. R_002    *  187. *   0.7 *  0.0  0.0  0.0  0.0  0.0  0.2  0.5  0.0
  3. R_003    *  185. *   0.9 *  0.0  0.0  0.1  0.0  0.0  0.2  0.5  0.1
  4. R_004    *  173. *   0.9 *  0.0  0.0  0.0  0.0  0.0  0.6  0.3  0.0


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Appendix H. Selected Traffic Data

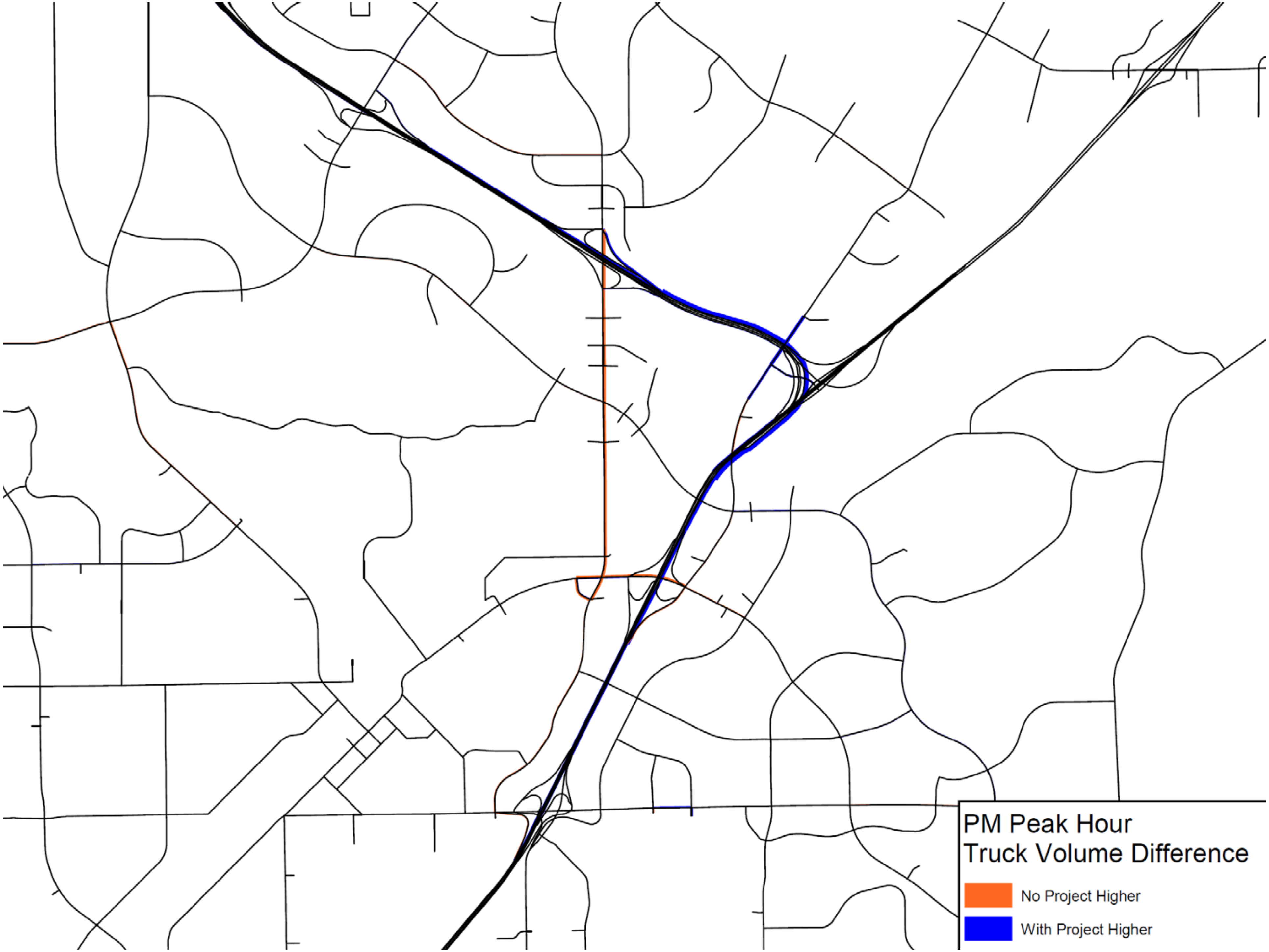
This appendix includes the following selected traffic data from the *I-80/SR 65 Interchange Improvements Project Transportation Analysis Report* (Fehr & Peers 2014).

1. Average annual daily traffic (AADT) volumes and truck percentages under design year (2040) conditions for Alternative 1 and the No Build Alternative. Alternative 1 was selected for the analysis as traffic volumes are forecasted to be highest under this alternative than any of the build alternatives.
2. Truck volumes (p.m. peak hour) on project area roadways.
3. Intersection level-of-service and delay.

Table 1 –AADT Volumes and Truck Percentages under Design Year (2040) Conditions

Road	Segments	No Build			Alternative 1			Delta
		AADT	Truck AADT	% Truck	AADT	Truck AADT	% Truck	Truck AADT
I-80	Douglas Blvd to Eureka Rd	197,400	14,200	7.19%	204,200	14,300	7.00%	0.7%
	Eureka Rd to Taylor Rd	203,800	14,400	7.07%	217,800	14,400	6.61%	0.0%
	Taylor Rd to SR 65	194,200	13,900	7.16%	213,000	14,300	6.71%	2.9%
	SR 65 to Rocklin Rd	139,500	9,900	7.10%	137,300	9,700	7.06%	-2.0%
SR-65	I-80 to Galleria Blvd	151,500	6,000	3.96%	155,600	6,000	3.86%	0.0%
	Galleria Blvd to Pleasant Grove Blvd	159,100	6,600	4.15%	154,800	6,300	4.07%	-4.5%
Source: Milam pers. comm. B								

Exhibit 2: Year 2040 Volume Differences for Trucks - PM Peak Hour



Construction Year PM Peak Hour Conditions

Intersection	Alternative 1	Alternative 2	Alternative 3	Alternative 5
6. Blue Oaks Blvd / Washington Blvd	**D / 39**	**D / 43**	**D / 40**	**F / 188**
7. Blue Oaks Blvd / SR 65 NB Ramps	B / 11	B / 12	B / 12	C / 26
10. Stanford Ranch Rd / Five Star Blvd	**D / 43**	**D / 37**	**D / 37**	**F / 107**
11. Stanford Ranch Rd / SR 65 NB Ramps	B / 11	A / 10	B / 10	D / 45
12. Galleria Blvd / SR 65 SB Ramps	B / 17	B / 16	B / 17	D / 43
14. Galleria Blvd / Roseville Pkwy	E / 61	E / 56	E / 58	**F / 227**
16. Roseville Pkwy / Taylor Rd	D / 48	D / 42	D / 53	D / 37
19. Atlantic St / I-80 WB Ramps	B / 17	B / 12	C / 29	**D / 36**
20. Eureka Rd / Taylor Rd / I-80 EB Ramps	E / 63	E / 77	E / 78	D / 42
21. Eureka Rd / Sunrise Ave	**D / 52**	**E / 63**	**D / 48**	**D / 49**
23. Douglas Blvd / Harding Blvd	D / 42	D / 39	D / 49	**F / 123**
26. Douglas Blvd / Sunrise Ave	D / 50	**E / 56**	D / 47	**F / 203**
28. Pacific St / Sunset Blvd	**D / 39**	**D / 43**	C / 24	C / 30
29. Rocklin Rd / Granite Dr	**F / 101**	**F / 91**	**F / 110**	**F / 170**

Notes: Bold and underline font indicate unacceptable operations. Shaded cells indicate a project impact. The LOS
Source: Fehr & Peers, 2014

Design Year PM Peak Hour Conditions

Intersection	Alternative 1	Alternative 2	Alternative 3	Alternative 5
6. Blue Oaks Blvd / Washington Blvd	**F / 165**	**F / 164**	**F / 175**	**F / >240**
7. Blue Oaks Blvd / SR 65 NB Ramps	**F / 85**	**E / 69**	**E / 80**	**F / 115**
10. Stanford Ranch Rd / Five Star Blvd	**E / 56**	**E / 55**	**E / 59**	**D / 36**
11. Stanford Ranch Rd / SR 65 NB Ramps	C / 26	C / 22	C / 22	D / 36
12. Galleria Blvd / SR 65 SB Ramps	C / 24	C / 23	C / 25	C / 29
14. Galleria Blvd / Roseville Pkwy	**F / 91**	**F / 131**	**F / 102**	**F / 213**
15. Roseville Pkwy / Creekside Ridge Dr	**E / 77**	**E / 72**	**D / 40**	C / 24
16. Roseville Pkwy / Taylor Rd	D / 54	D / 53	**E / 71**	D / 48
19. Atlantic St / I-80 WB Ramps	B / 15	B / 18	C / 34	**D / 51**
20. Eureka Rd / Taylor Rd / I-80 EB Ramps	**F / 104**	**F / 103**	**F / 104**	**F / 92**
21. Eureka Rd / Sunrise Ave	**F / 99**	**F / 132**	**F / 113**	**F / 184**
23. Douglas Blvd / Harding Blvd	**F / 81**	E / 80	**F / 111**	**F / >240**
26. Douglas Blvd / Sunrise Ave	**F / 158**	**F / 240**	**F / 166**	**F / >240**
29. Rocklin Rd / Granite Dr	**F / 83**	**F / 97**	**F / 105**	**F / >240**

Notes: Bold and underline font indicate unacceptable operations. Shaded cells indicate a project impact. The LOS
Source: Fehr & Peers, 2014

Appendix I. PM Interagency Consultation

The Interstate 80/State Route 65 Interchange Improvements Project underwent interagency consultation (IAC) through SACOG’s Project Level Conformity Group (PLCG). The PLCG issued concurrence that the project is not a project of air quality concern (POAQC) on April 23, 2013.This appendix provides evidence that the IAC concurred with the conclusion that the project is not a POAQC, including concurrence emails from the U.S. Environmental Protection Agency and the Federal Highway Administration.

SACOG

Regional Planning Partnership Item #4

May 21, 2013

Project Level Conformity Working Group Update

Issue: What actions has the Project Level Conformity Group, a subcommittee of the RPP, taken since September 2011?

Recommendation: None, this is for information only.

Discussion: Using delegated authority from the RPP, the Project Level Conformity Group (PLCG) is tasked with reviewing and taking action on $PM_{2.5}$ and PM_{10} Project of Air Quality Concern (POAQC) determinations and hot spot analyses. Since its formation in September 2011, the PLCG, a subcommittee of the RPP, has evaluated ten projects, determining whether they should be considered POAQCs.

Attachment A lists the projects determined and the actions taken; Attachment B lists the members of the PLCG; and Attachment C is the RPP item from September 2011, establishing the PLCG.

Anyone from the RPP is welcome to join the PLCG. If you would like to join, please contact José Luis Cáceres.

JLC:gg
Attachments

Key Staff: Matt Carpenter, Director of Transportation Services, (916) 340-6276
Gordon Garry, Director of Research and Analysis, (916) 340-6230
Renée DeVere-Oki, Senior Planner, (916) 340-6219
José Luis Cáceres, Associate Planner, (916) 340-6218
Victoria S. Cacciatore, Planning Analyst, (916) 340-6214

Actions Taken by the Project Level Conformity Group, September 2011 to May 2013.

#	Date Circulated	Action Date	Action	ID	Title	Sponsor
1	12/23/2011	1/4/2012	POAQC Approved	CAL20452	SR 113/SR 99 Interchange	Caltrans District 3
2	1/19/2012	1/27/2012	POAQC Approved	PLA25502	Rocklin Rd/Meyers St. Roundabout	City of Rocklin Division of Engineering
3	4/23/2012	5/10/2012	POAQC Approved	SAC24470	White Rock Rd. - Sunrise Blvd. to City Limits	City of Rancho Cordova
4	7/5/2012	7/17/2012	POAQC Approved	PLA25499	Rocklin Rd/Grove St Roundabout	City of Rocklin Division of Engineering
5	8/6/2012	8/13/2012	POAQC Approved	PLA25252	Swetzer Road / King Road Signalization	Town of Loomis Dept of Public Works
6	9/11/2012	9/18/2012	POAQC Approved	SAC16800	Fair Oaks Boulevard Improvements Phase 2	Sacramento County Dept of Transportation
7	12/5/2012	4/23/2013*	POAQC Approved*	PLA25440	I-80/SR 65 Interchange Improvements	Placer County Transportation Planning Agency
8	1/4/2013	2/4/2013	POAQC Approved	PLA20721/PLA25299	Placer Parkway Project	Placer County Dept of Public Works
9	3/21/2013	3/28/2013	POAQC Approved	PLA25520	Oak Street Improvements	City of Roseville Dept of Public Works
10	4/15/2013	4/30/2013	POAQC Approved	PLA25509	Nelson Ln/Markham Ravine Bridge Replacement	City of Lincoln Dept of Public Works

* Action taken by Regional Planning Partnership at its April 23, 2013 Meeting.

From: uke McNeel-Caird <lmcneel-caird@pctpa.net>
Sent: uesday, May 07, 2013 9:28 AM
To: eo.Heuston@CH2M.com; Bromund, Claire; Hatcher, Shannon; Chris.Benson@CH2M.com; David Stanek
Subject: W: RE: I-80/SR 65 IC Updated POAQC Form

EPA and FHWA have concurred that the I-80/SR 65 interchange project is not a POAQC. Thanks to all of you for your help through this process. Claire, let me know if there is anything else you need for your documentation.
Luke McNeel-Caird, P.E.
Placer County Transportation Planning Agency
299 Nevada Street, Auburn, CA 95603
(530) 823-4033

From: Joseph.Vaughn@dot.gov [mailto:Joseph.Vaughn@dot.gov]
Sent: Tuesday, May 07, 2013 9:21 AM
To: JCaceres@sacog.org
Cc: Luke McNeel-Caird; RDeVere-Oki@sacog.org; vcacciatore@sacog.org; mike_brady@dot.ca.gov; oconnor.karina@epa.gov
Subject: RE: RE: I-80/SR 65 IC Updated POAQC Form

FHWA concurs that this is not a project of air quality concern.

Joseph Vaughn
Air Quality Specialist/MPO Coordinator
FHWA, CA Division
(916) 498-5346

From: Jose Luis Caceres [mailto:JCaceres@sacog.org]
Sent: Monday, May 06, 2013 4:10 PM
To: Vaughn, Joseph (FHWA)
Cc: Luke McNeel-Caird; Renee DeVere-Oki; Victoria Cacciatore
Subject: Fwd: RE: I-80/SR 65 IC Updated POAQC Form

Hi Joseph,

It would be great if I could also get FHWA concurrence so that this project can move forward. I'm leaving on paternity leave Tuesday, so if you contact me after then, please copy Renée DeVere-Oki and Luke McNeel-Caird.

Thanks,

José Luis Cáceres
Transportation Planner, SACOG
(916) 340-6218

>>> "OConnor, Karina" <OConnor.Karina@epa.gov> 5/6/2013 9:31 AM >>>
In response to your request for a quick turnaround - the revised form looks fine! EPA concurs that this is not a project of air quality concern.

thanks, Kairna

Karina OConnor
EPA, Region 9
Air Planning Office (AIR-2)
(775) 434-8176
oconnor.karina@epa.gov

From: Jose Luis Caceres [JCaceres@sacog.org]
Sent: Thursday, May 02, 2013 3:46 PM
To: Joseph Vaughn; OConnor, Karina
Cc: Luke McNeel-Caird; Victoria Cacciatore
Subject: Fwd: I-80/SR 65 IC Updated POAQC Form
Karina and Joseph,

The RPP approved this project as not a POAQC on the condition that the sponsor revise the POAQC form. Attached is that form. If this is sufficient, then would you please email me your concurrence on the determination that this is not a POAQC?

Thanks,

José Luis Cáceres
Transportation Planner, SACOG
(916) 340-6218

>>> Luke McNeel-Caird <lmcneel-caird@pctpa.net> 5/2/2013 3:36 PM >>>
Hi Jose Luis,
As requested at the SACOG Regional Planning Partnership meeting on April 24th, attached is an updated POAQC form for the I-80/SR 65 interchange project for transmittal to EPA and FHWA for concurrence. Please let me know if you have any questions.
Luke McNeel-Caird, P.E.
Placer County Transportation Planning Agency
299 Nevada Street, Auburn, CA 95603
(530) 823-4033