Final Environmental Impact Report

Austin Road Business Park and Residential Community

State Clearinghouse Number
2009012044

September 2010

Prepared for:

The City of Manteca
Community Development Department
1001 W. Center Street, Manteca, CA 95337

Prepared by:

PBS&J
1200 Second Street, Sacramento CA 95814

06110 | JCS | 2010

FINAL
ENVIRONMENTAL IMPACT REPORT

for the Austin Road Business Park and Residential Community Manteca, California

Prepared for:

City of Manteca
Community Development Department, Planning Division
1001 W. Center Street
Manteca, CA 95337
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Prepared by:

PBS&J
1200 2nd Street
Sacramento, California 95814

September 2010

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1. INTRODUCTION

1.0 INTRODUCTION

PURPOSE OF THIS DOCUMENT

This document contains public comments received on the Draft Environmental Impact Report (Draft EIR) for the Austin Road Business Park and Residential Community Project (proposed project). Written comments were received by the City of Manteca during the public comment period held from April 12, 2010 through May 27, 2010. This Final EIR includes written responses to environmental issues raised in comments on the Draft EIR. The responses in the Final EIR clarify, correct, and amplify text in the Draft EIR, as appropriate. Also included are text changes made at the initiative of the Lead Agency (City of Manteca). These changes do not alter the conclusions of the Draft EIR. This document has been prepared in accordance with the California Environmental Quality Act (CEQA; Public Resources Code (PRC) sections 21000-21177).

BACKGROUND

In accordance with CEQA regulations, the City released a Notice of Preparation (NOP) on January 16, 2009, with a comment period from January 16, 2009 to February 18, 2009. The City distributed the NOP to responsible agencies, interested parties and organizations, as well as private organizations and individuals that have stated an interest in the project. The purpose of the NOP was to provide notification that an EIR for the project was being prepared and to solicit guidance on the scope and content of the document. A copy of the NOP and public and agency responses to the NOP are included in Appendix B of the DEIR in accordance with CEQA. The City held a scoping meeting on February 5, 2009. There were no public or agency comments submitted at the scoping meeting.

The Draft EIR was circulated for public review and comment for a period of 45 days from April 12, 2010 through May 27, 2010. A public hearing was held on the DEIR for this project on April 27, 2010.

PROJECT UNDER REVIEW

The 1,049-acre project site is located in San Joaquin County adjacent to the southeast limits of the City of Manteca. The project site is within the ten-year planning horizon of the adopted City of Manteca Sphere of Influence. The area is generally bounded by East Woodward Avenue to the north, Highway 99 to the east, and is bisected by the existing Austin Road, which runs north-south. The proposed project includes a range of land uses and development intensities, including heavy industrial, commercial, office, mixed use, residential, and public/quasi-public. The public/quasi public uses include detention basins/parks, open space, and an exposition (EXPO) center, which would include a 32,000-square-foot exposition hall for conferences; an amphitheater with 1,000 permanent seats and a 4,000-person-capacity lawn seating for outdoor events; and a 10,000-square-foot agricultural EXPO facility. The project would include up to 5,380,000 square feet of heavy industrial on 247 acres; 1,014,000 square feet of business/industrial/professional uses on

65.1 acres; 1,178,000 square feet of general commercial on 108.2 acres; 501,000 square feet of commercial mixed use with 828 residential units on 83.9 acres; 3,370 residential units on 449.9 acres; and 94.5 acres of public/quasi-public uses, including the 122,000 square foot EXPO.

Required Discretionary Actions

The City of Manteca would be required to certify that the EIR adequately identifies the significant environmental effects of the proposed project, pursuant to CEQA, the State CEQA Guidelines, and the City of Manteca CEQA Guidelines. The project applicant is seeking approval of the following City entitlements, approvals, actions, and/or permits:

- Certification of the EIR and Mitigation Monitoring Plan
- General Plan Amendments
- Prezone
- Annexation
- Master Plan

TYPE OF DOCUMENT

The EIR is a Project EIR, pursuant to Section 15161 of the CEQA Guidelines. A Project EIR examines the environmental impacts of a specific project. This type of EIR focuses on the changes in the environment that would result from implementation of the project, including construction and operation. A Notice of Availability was posted with the San Joaquin County Clerk on April 12, 2010 and the Draft EIR was released for public review and comment period from April 12, 2010 through May 27, 2010.

The EIR is an informational document intended to disclose to the decision makers and the public the environmental consequences of approving and implementing the proposed project. The preparation of the Final EIR focuses on the responses to significant environmental issues raised in comments on the Draft EIR. CEQA Guidelines Section 15132 specifies the following:

> The Final EIR shall consist of:
>
> (a) The Draft EIR or revision of the draft.
>
> (b) Comments and recommendations received on the Draft EIR either verbatim or in summary.
>
> (c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
>
> (d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
>
> (e) And any other information added by the Lead Agency.

This document contains the list of commenters, the comment letters, and responses to the significant environmental points raised in the comments and text changes made at the initiative of

the Lead Agency. These changes do not alter the conclusions of the Draft EIR. The Draft EIR is hereby incorporated by reference.

The City of Manteca, the Lead Agency, must certify that the Austin Road Business Park and Residential Community EIR, which includes both the Draft EIR and Final EIR, adequately discloses the environmental effects of the project and has been completed in conformance with CEQA, and that the decision-making bodies independently reviewed and considered the information contained in the EIR prior to taking action on the project (CEQA Guidelines section 15090). The EIR must also be considered by the Responsible Agencies, which are public agencies that have discretionary approval authority over the project in addition to the Lead Agency. For this project, any "responsible agencies" must consider the environmental effects of the project, as shown in the EIR prior to approving any portion of the project over which it has authority.

The following approvals and/or permits may be required from other agencies, including various "responsible agencies" as defined by CEQA. The Austin Road Business Park and Residential Community EIR has been designed to provide information to these agencies to assist them in the permitting processes for the proposed project. Technically, no federal agency can be a "responsible agency" within the meaning of CEQA, as federal agencies are beyond the reach of state law, which does impose various duties on responsible agencies. Even so, various federal agencies, discussed below, may use the analysis in this document in order to assist with the preparation of their own analyses required by federal law.

- **Water Quality Certification** (State Water Resources Control Board)
- **Construction Storm Water Discharge Permit** (State Water Resources Control Board)
- **National Pollutant Discharge Elimination System** Permit Modification (Regional Water Quality Control Board)
- **Hazardous Materials Environmental Oversight** (Department of Toxic Substances Control, San Joaquin County Division of Environmental Health Services).
- **Permit to Operate** (San Joaquin Valley Air Pollution Control District)
- **Annexation** (LAFCO)

ORGANIZATION OF THIS DOCUMENT

For this Final EIR, comments and responses are grouped by comment letter. As the subject matter of one topic may overlap between letters, the reader must occasionally refer to one or more responses to review all the information on a given subject. To assist the reader, cross references are provided. The comments and responses that make up the Final EIR, in conjunction with the Draft EIR, as amended by the text changes, constitute the EIR that will be considered for certification by the City of Manteca.

The Final EIR is organized as follows:

> **Chapter 1 - Introduction:** This chapter includes a summary of the project description and the process and requirements of a Final EIR.

Chapter 2 - Changes to the Draft EIR: This chapter lists the text changes to the Draft EIR.

Chapter 3 - List of Agencies and Persons Commenting: This chapter contains a list of all of the agencies or persons who submitted comments on the Draft EIR during the public review period.

Chapter 4 - Comments and Responses: This chapter contains the comment letters received on the Draft EIR and the corresponding response to each comment. Each letter and each comment within a letter has been given a number. Responses are provided after the letter in the order in which the comments were assigned. Where appropriate, responses are cross-referenced between letters. The responses following each comment letter are intended to supplement, clarify, or amend information provided in the Draft EIR, or refer the commenter to the appropriate place in the document where the requested information can be found. Those comments not directly related to environmental issues may be discussed or noted for the record.

PUBLIC PARTICIPATION AND REVIEW

The City of Manteca notified all responsible and trustee agencies and interested groups, organizations, and individuals that the Draft EIR on the proposed project was available for review. The following list of actions took place during the preparation, distribution, and review of the Draft EIR:

- The City of Manteca filed a Notice of Preparation (NOP) for an EIR with the State Clearinghouse for a 30-day public review period for the proposed project on January 16, 2009.
- A public scoping meeting was held on February 5, 2009.
- A Notice of Completion (NOC) and copies of the Draft EIR were filed with the State Clearinghouse on April 12, 2010. A 45-day public review period for the Draft EIR was established by the State Clearinghouse, ending on May 27, 2010 and a Notice of Availability (NOA) was distributed to interested groups, organizations, and individuals.
- Copies of the Draft EIR were available for review at the following locations:
- Manteca City Clerk
- 1001 W. Center Street
- Manteca, CA 95337
- City of Manteca Community Development Department
- 1001 W. Center Street
- Manteca, CA 95337
- Manteca Branch Library
- Stockton-San Joaquin County Public Library
- 320 W. Center Street
- Manteca, CA 95336

2. CHANGES TO THE DRAFT EIR

INTRODUCTION

This chapter presents minor corrections and revisions made to the Draft EIR initiated by the public, the Lead Agency, and/or consultants based on their on-going review. New text is indicated in underline and text to be deleted is reflected by a strike through unless otherwise noted in the introduction preceding the text change (extensive edits have been included without underline and strikeout for clarity). Text changes are presented in the page order in which they appear in the Draft EIR.

Section 5.3 Air Quality

Table 5.3-3 on page 5.3-18 of the Draft EIR is amended as follows:

TABLE 5.3-3

PROJECT CONSTRUCTION CRITERIA POLLUTANT EMISSIONS (MITIGATED)

Year/Emission Source	ROG (tons/year)	NOx (tons/year)	PM10 (tons/year)	PM2.5 (tons/year)
Year 2010 (Phase 1)	0.90	7.46	7.21	1.77
Year 2011 (Phase 1)	6.09	48.88	2.71	2.13
Year 2012 (Phases 1 and 2)	48.04	29.44	5.12	2.12
Year 2013 (Phases 2, 3, and 4)	13.07	9.37	4.03	1.24
Year 2014 (Phases 3 and 4)	2.11	11.62	6.39	1.80
Year 2015 (Phases 3 and 4)	3.77	12.96	1.12	0.87
Year 2016 (Phases 3 and 4)	3.54	11.82	1.04	0.79
Year 2017 (Phases 3 and 4)	3.32	10.74	0.97	0.73
Year 2018 (Phases 3 and 4)	3.15	9.84	0.91	0.67
Year 2019 (Phases 3 and 4)	2.99	9.00	0.85	0.62
Year 2020 (Phase 5)	3.50	9.02	10.71	2.58
Year 2021 (Phase 5	5.11	8.93	0.86	0.62
Year 2022 (Phase 5)	5.09	8.90	0.86	0.62
Maximum Annual Emissions prior to Rule 9510 Compliance	**48.04**	**48.88**	**10.71**	**2.58**
Percent reduction from unmitigated emissions required by Rule 9510	—	20%~~33.3%~~	45%~~50%~~	—
Maximum Annual Emissions after Rule 9510 Compliance[1]	48.04	39.1~~32.6~~	10.71	2.58
SJVAPCD Thresholds (tons/year)	10.00	10.00	15.00	NT
Significant Impact	**Yes**	**Yes**	No	No
Percent Reduction Achieved with Mitigation and Rule 9510 Compliance	9.2%	20%	47.00%	43.30%

Notes:
1. The reduction noted is based upon the unmitigated totals, shown in Table 5.3-2. Because PM_{10} emissions would already be below the 15 tons per year threshold, an additional 45% reduction after compliance with Rule 9510 is not shown.
2. Modeling assumes construction (excavation, grading, and other construction activities) would be limited to one activity at a time.
3. Modeling assumes heavy construction equipment would be limited to 8 hours per day, 5 days per week.

Pollutant emissions are displayed in the units that allow direct comparison with the SJVAPCD significance thresholds (i.e., 10 tons/year for ROG and NOx, and 15 tons/year for PM_{10}).
Source: PBS&J, 2009. Based on URBEMIS 2007 Version 9.2.4.

Mitigation Measure 5.3-1 on page 5.3-18 of the Draft EIR is amended as follows:

5.3-1 *The construction contractor shall implement the following measures during construction activities:*

- *Require that all diesel engines be shut off when not in use to reduce emissions from idling.*
- *Minimize the obstruction of traffic on adjacent roadways.*
- *Water the active construction area three times per day during grading activities.*
- *Use low-VOC paint during the painting of all residential and non-residential structures.*
- *Achieve fleet average emissions for off-road equipment equal to or less than EPA Tier II emissions standards of 4.8 g NO_x/bhp-hr, where feasible.*

Mitigation Measure 5.3-4 on page 5.3-25 of the Draft EIR is changed as follows:

5.3-4 *No residential structure shall be located within 250 feet of the nearest travel lane of SR 99 and/or 200 feet from centerline of the railroad. Further, any residential development located within 500 feet of SR 99 shall be subject to a site-specific evaluation of DPM. If it is determined that health risks at proposed residences within 500 feet of SR 99 exceed SJVAPCD's threshold of 10 in one million, further site-specific mitigation measures and/or additional buffer distance between SR 99 and the proposed residences shall be provided, as determined through coordination with SJVAPCD.*

Section 5.7 Public Services

The text on page 5.7-2 of the Draft EIR is changed as follows:

The project site is currently served by the Ripon Consolidated Fire Protection District (RCFPD), which serves the City of Ripon and rural areas near Manteca and Ripon; and Lathrop-Manteca Fire Protection District (LMFPD), which serves the City of Lathrop, rural Lathrop, and rural Manteca. Under the proposed project, the project site would be detached from LMFPD and RCFPD. Upon detachment from LMFPD and RCFPD and annexation to the City of Manteca, the project site would be served by the City of Manteca Fire Department (MFD).

Section 5.9 Transportation and Circulation

The text on page 5.9-10 in the Draft EIR is changed as follows:

The CMP determines the LOS standard for the following facilities included in this study:

- SR 120 between Yosemite Ave. and SR 99 – LOS F
- SR 99 – LOS D

- Jack Tone Road between SR 99 and Austin Road and Ripon Road/Main Street – LOS D
- Ripon Road/Main Street between Austin Road and SR 99 – LOS D

Although the CMP standard for SR 120 is LOS F, Caltrans does not support this designation and instead uses a standard of LOS D.

The text of Mitigation Measure 5.9-1 on page 5.9-44 in the Draft EIR is changed as follows:

5.9-1 a) *The project applicant and the City of Manteca shall work with Caltrans and the California Public Utilities Commission to obtain the necessary permits and conduct an at-grade railroad crossing safety diagnosis to construct the improvements described below.*

3. LIST OF AGENCIES AND PERSONS COMMENTING

3.0 LIST OF AGENCIES AND PERSONS COMMENTING

STATE AGENCIES

- California Public Utilities Commission, Moses Stites
- California Regional Water Quality Control Board, Dan Radulescu
- California Department of Conservation, Dan Otis
- California Department of Transportation, Office of Metropolitan Planning

LOCAL AGENCIES

- San Joaquin Council of Governments, San Joaquin Multi-Species habitat Conservation and Open Space Plan Anne-Marie Poggio
- Ripon Unified School District, Louise Bennicoff-Nan
- City of Ripon, Ken Zuidervaart
- San Joaquin Valley Air Pollution Control District, David Warner
- San Joaquin Council of Governments, Laura Brunn
- Ripon Consolidated Fire District, Dennis Bitters

ORAL COMMENTS RECEIVED AT THE APRIL 27, 2010 HEARING ON THE DRAFT EIR

- Louise Bennicoff-Nan
- Ernie Tyhurst

4. COMMENTS AND RESPONSES

4.0 COMMENTS AND RESPONSES

This section contains the comment letters that were received on the Draft EIR. Following each comment letter is a response by the City intended to supplement, clarify, or amend information provided in the Draft EIR and/ or refer the reader to the appropriate place in the Draft EIR where the requested information can be found. Comments that are not directly related to environmental issues may be discussed or noted for the record. Where text changes in the Draft EIR are warranted based upon comments on the Draft EIR, those changes are generally included following the response to comment and in Chapter 2, Text Changes.

S J C O G, Inc.

555 East Weber Avenue • Stockton, CA 95202 • (209) 235-0600 • FAX (209) 235-0438

San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP)

SJMSCP RESPONSE TO LOCAL JURISDICTION (RTLJ)
ADVISORY AGENCY NOTICE TO SJCOG, Inc.

To: Erika Durrer, Senior Planner, City of Manteca Community Development Department

From: Anne~Marie Poggio, Regional Habitat Planner, SJCOG, Inc.

Date: April 27, 2010

Local Jurisdiction Project Title: Austin Road Business Park and Residential Community

Assessor Parcel Number(s):

Local Jurisdiction Project Number: SCH# 2009012044

Total Acres to be converted from Open Space Use: 1,049 acres

Habitat Types to be Disturbed: Agricultural and Multi-Purpose Habitat Land

Species Impact Findings: Findings to be determined by SJMSCP biologist.

Dear Mrs. Durrer:

SJCOG, Inc. has reviewed the application for the Austin Road Business Park and Residential Community. According to the Draft EIR:

> The proposed Austin Road Business Park and Residential Community (ARBPRC) project site encompasses approximately 1,049 acres in unincorporated San Joaquin County. The proposed project would include heavy industrial, commercial, office, mixed use, various residential uses, and public/quasi-public uses.
>
> The project applicant has developed the following objectives for the proposed project.
> 1. Provide a diversity of employment and housing types and opportunities.
> 2. Provide a pedestrian oriented neighborhood compatible with the Austin Road Business Park and Planned Community site, with pedestrian features that include safe, comfortable sidewalks and relatively direct routes to schools, parks, and commercial services.
> 3. Provide access to neighborhood parks.
> 4. Create a distinctive neighborhood identity through street landscaping, gateways, and traffic circles.
> 5. Provide opportunities for retail, commercial, industrial, and professional uses that contribute to the economic base of the City of Manteca.
> 6. Provide a major employment center identified in the 2023 General Plan that could reduce the home-to-work commute by Manteca residents.
>
> The project site is located in San Joaquin County adjacent to the southeast limits of the City of Manteca. The project site is within the ten-year planning horizon of the adopted City of Manteca Sphere of Influence. The area is generally bounded by East Woodward Avenue to the north, Highway 99 to the east, and is bisected by the existing Austin Road, which runs north-south.
>
> The majority of the project site is currently under agricultural use. Crop types include grapes, almonds, corn, oats, and strawberries. The existing circulation within the project site consists of rural roads, with the exception of Woodward Avenue and Austin Road. Existing infrastructure on the site is limited; the 14 rural residences on the project site have individual wells and septic systems. The project site also includes an approximately 30-acre parcel located adjacent to Highway 99 that includes modern office, warehouse, and industrial uses.

1-1

The City of Manteca is a signatory to San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). Participation in the SJMSCP satisfies requirements of both the state and federal endangered species acts, and ensures that the impacts are mitigated below a level of significance in compliance with the California Environmental Quality Act (CEQA). The LOCAL JURISDICTION retains responsibility for ensuring that the appropriate Incidental Take Minimization Measure are properly implemented and monitored and that appropriate fees are paid in compliance with the SJMSCP. Although participation in the SJMSCP is voluntary, Local Jurisdiction/Lead Agencies should be aware that if project applicants choose against participating in the SJMSCP, they will be required to provide alternative mitigation in an amount and kind equal to that provided in the SJMSCP. 1-2

This Project is subject to the SJMSCP. This can be up to a 30 day process and it is recommended that the project applicant contact SJMSCP staff as early as possible. It is also recommended that the project applicant obtain an information package. http://www.sjcog.org

Please contact SJMSCP staff regarding completing the following steps to satisfy SJMSCP requirements: 1-3

- Schedule a SJMSCP Biologist to perform a pre-construction survey ***prior to any ground disturbance***
- Sign and Return Incidental Take Minimization Measures to SJMSCP staff (given to project applicant after pre-construction survey is completed)
- Pay appropriate fee based on SJMSCP findings. **Fees shall be paid in the amount in effect at the time of issuance of Building Permit**
- Receive your Certificate of Payment and release the required permit

It should be noted that if this project has any potential impacts to waters of the United States [pursuant to Section 404 Clean Water Act], it would require the project to seek voluntary coverage through the unmapped process under the SJMSCP which could take up to 90 days. It may be prudent to obtain a preliminary wetlands map from a qualified consultant. If waters of the United States are confirmed on the project site, the Corps and the Regional Water Quality Control Board (RWQCB) would have regulatory authority over those mapped areas [pursuant to Section 404 and 401 of the Clean Water Act respectively] and permits would be required from each of these resource agencies prior to grading the project site. 1-4

If you have any questions, please call (209) 235-0600.

S J C O G, Inc.

San Joaquin County Multi-Species Habitat Conservation & Open Space Plan

555 East Weber Avenue • Stockton, CA 95202 •(209) 235-0600 • FAX (209) 235-0438

SJMSCP HOLD

TO: Local Jurisdiction: Community Development Department, Planning Department, Building Department, Engineering Department, Survey Department, Transportation Department,
Other:

FROM: Anne-Marie Poggio, Regional Habitat Planner, SJCOG, Inc.

DO NOT AUTHORIZE SITE DISTURBANCE
DO NOT ISSUE A BUILDING PERMIT
DO NOT ISSUE _____ FOR THIS PROJECT

The landowner/developer for this site has requested coverage pursuant to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). In accordance with that agreement, the Applicant has agreed to:

1) Implement Incidental Take Minimization Measures (ITMMs) PRIOR to site disturbance. Do not authorize site disturbance **until receipt of a signed Agreement to Incidental Take Minimization Measures (ITMMs) AND verification that all applicable ITMMs have been implemented.**

2) Pay SJMSCP fees. **Fees shall be paid in the amount in effect at the time of issuance of Building Permit (see also Appendix).** Do not issue a **Use Permit until receipt of a Certificate of Payment or Verification of Payment to the Local Jurisdiction (e.g., Receipt) AND verification that all applicable ITMMs have been implemented prior to ground disturbance.**

Project Title: Austin Road Business Park and Residential Community

Landowner: _____

Applicant: Austin Road Business Partners LLC, Attn: Toni Raymus

Assessor Parcel #s: Multiple

T _____, R_____, Section(s): _____

Local Jurisdiction Contact: Erika Durrer

The LOCAL JURISDICTION retains responsibility for ensuring that the appropriate Incidental Take Minimization Measures are properly implemented and monitored and that appropriate fees are paid in compliance with the SJMSCP.

LETTER 1: San Joaquin Council of Governments

Response to Comment 1-1

The comment provides a summary of the project. No response is required.

Response to Comment 1-2

The comment provides information on the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and states that participation in the SJMSCP satisfies the requirements of the state and federal endangered species acts and ensures impacts are mitigated to less than significant under CEQA. The SJMSCP is discussed in the Draft EIR (pages 5.4-10 and 5.4-11) and compliance with the SJMSCP is included in mitigation measures for the project. As noted, impacts associated with the project would be less than significant given compliance with the SJMSCP.

Response to Comment 1-3

The comment regarding the timeline for satisfaction of the SJMSCP requirements is noted. The City encourages the project applicant to contact SJMSCP staff for the information package.

Response to Comment 1-4

The comment discusses coverage of the project under the SJMSCP if wetlands are present on site. As discussed on page 5.4-1 of the Draft EIR, the project site has been significantly altered due to past and current agricultural activity. On March 11, 2008, a PBS&J biologist conducted an assessment of jurisdictional wetlands and waters to determine if there are wetlands and/or Waters of the U.S. on the project site subject to jurisdiction of the U.S. Army Corps of Engineers (Corps). No evidence of wetlands or Waters of the U.S. was observed during the March 11, 2008 survey of the project site.

Ripon Unified School District

304 North Acacia Avenue • Ripon CA 95366 • (209) 599-2131 • Fax (209) 599-6271

Louise Nan Ed. D., *Superintendent*
Kathy Coleman, *Educational Services*
Camille Taylor, *Special Education*

May 13, 2010

City of Manteca
Community Development Department
1001 W. Center Street
Manteca, CA 95337

Re: Comments on Draft Environmental Impact Report
Austin Road Business Park and Residential Community

Thank you for hearing my comments at the April 27, 2010 meeting of the City of Manteca Planning Commission. As promised, I am following up with those comments in writing prior to the due date of May 27, 2010.

We appreciate that it is now recognized that the Ripon Unified School District has significant interest in this development since the larger portion of the homes will lie within our attendance boundaries. We had been excluded from the early planning process and did not receive timely Notice of Preparation of the Draft EIR. Fortunately, the error was discovered by City of Manteca staff and we were given an extension to the timeline. I did submit initial comments at that time. Nevertheless, it appears that the Ripon Unified School District was a mere afterthought in the draft EIR with attention given to the Goals and Policies of the Manteca General Plan and covering the Manteca Unified School District with no similar regard for the Ripon Unified School District. Specifically: 2-1

1. **Goal PF – 13 "Maintain sufficient land inventory so that the Manteca Unified School District can provide for the educational needs of Manteca residents. (p. 5.7 – 15)** Approximately 58% of the homes in this planned development fall within the boundaries of the Ripon Unified School District. Sufficient land inventory should be allocated to the **Ripon Unified School District** to provide for the needs of the students in this development. 2-2
2. **Policy PF-P-33 "The City shall cooperate with the Manteca Unified School District and others in locating and reserving appropriate sites for new neighborhood walking distance schools. Adequate facilities shall be planned to accommodate new residential development and endeavor to create neighborhood schools." (p. 5.7-15)** The Ripon Unified School District has an interest in the developer reserving one or more appropriate sites for a walking distance school. However, the Ripon Unified School District is an open enrollment district. Any student in our district may attend any of our schools. If a student is not immediately placed at the school of choice, his 2-3

or her parent may put the student on the transfer list and the student is moved as soon as space becomes available. While most people will choose their neighborhood walking school, any of our Ripon students may attend any of our schools. For this reason, I anticipate need of several additional school buses and drivers to accommodate the new students. 2-3 (cont.)

3. **Policy PF-I-18 "The City will maintain an inventory of public lands to identify opportunities for joint-use facilities and neighborhood schools. (p.5.7-16)** The Ripon Unified School District wishes to express its support and interest in cooperating with the City of Manteca in the identification and development of joint use facilities. The event center is of particular interest to us and we support collaborative exploration of joint use funding to enhance this project. 2-4
4. **Policy PR-I-19 "The City shall cooperate with the Manteca Unified School District to select a suitable location for a high school south of SR 120 and to select suitable locations within new residential development of neighborhood K-8 schools." (p. 5.7-16)** The City should cooperate with the **Ripon Unified School District** as well as Manteca USD in the selection of suitable school locations. 2-5

Table 5.7-2 shows the Projected Increase in School Enrollment Resulting from the Proposed Project. The expected impacts for both Manteca Unified School District and the Ripon Unified School District are shown. However, I suggest that since this residential development is being considered under the auspices of the City of Manteca with its policies and procedures rather than the City of Ripon with its policies and procedures it may be more appropriate to factor in the Manteca Unified School District student yield ratios. The differential impact would be as follows: 2-6

	Ripon Unified School District					
Grade Level	Housing Units	RUSD Yield	# Students	MUSD Yield	# Students	Difference
K-6	2430	0.370	899	0.530	1288	389
7-8	2430	0.091	221	0.106	258	37
9-12	2430	0.168	408	0.192	437	29
			1528		**1983**	**455**

Approximately 2 new K – 8 schools and 16 new high school classrooms would be required to accommodate the new students anticipated from this development, hence the need to work with the City of Manteca and the developer to set aside land for a school site is critical. While the Draft EIR reviews the processes for developer fees under the California Education Code, developer fees alone are never sufficient to cover the cost of new school construction. It is of critical importance that the Ripon Unified School District has a seat at the table in negotiations with the developer as the development plan emerges.

Thank you for your consideration.

Sincerely,

Louise Bennicoff-Nan

Louise Bennicoff-Nan, Ed.D.
Superintendent

LETTER 2: Ripon Unified School District

Response to Comment 2-1

The comment states that the Ripon Unified School District was an afterthought in the preparation of the Draft EIR and the Draft EIR focused on goals and policies related to the Manteca Unified School District, but not the Ripon Unified School District. It is important to point out that the goals and policies referenced in the comment are existing City of Manteca General Plan goals and policies, which focus on the Manteca Unified School District (MUSD) as it is the MUSD that serves the majority of the City of Manteca. There are no City of Manteca General Plan goals and policies that specifically address the Ripon Unified School District. Nonetheless, as demonstrated in the General Plan policies and goals, it is the City's goal to ensure that adequate school facilities are available to serve new growth in the city. Consequently, the City will work with the project applicant and school districts toward the provision of schools, irrespective of the district that would serve all or portions of the project site.

Response to Comment 2-2

The comment is correct: as shown in Table 5.7-2, approximately 58 percent of the residential units in the project site would be within the Ripon Unified School District boundary. As discussed in the Draft EIR (page 5.7-18), however, the school districts, whether Ripon Unified School District or the Manteca Unified School District, would need to acquire land on which to construct a school, if existing schools cannot accommodate demand. Although specific school sites were not analyzed in the Draft EIR, the City's Zoning Code does indicate that schools are a permitted use in a residential district, meaning that a public school can be accommodated on any LDR, MDR, or HDR site identified on the land use plan. If school districts acquire land within the ARBPRC project site, there would be no additional impacts associated with the construction of school facilities beyond that identified in the Draft EIR. If school districts acquire land outside the ARBPRC project area, however, the district would need to prepare a separate environmental analysis to determine the potential impacts in those offsite areas (Draft EIR page 5.7-18).

Response to Comment 2-3

The comment expresses an interest in a site within the project area for placement of a school. General Plan Policy PF-P-33 indicates (in part) that the City is to cooperate with the MUSD and others in locating and reserving sites for new schools. While the City is to cooperate with a school district, state law limits the authority that local jurisdictions have in providing school facilities and the City cannot require a development project such as the ARBPRC to reserve school sites. The City's General Plan and Zoning Ordinance provide opportunities for development of these facilities, however, thereby reducing the barriers for school districts to acquire suitable sites for the construction of new schools. For instance, schools are permitted uses in residential and public/quasi-public districts, and several areas within the ARBPRC carry these zoning designations and, therefore, schools can be accommodated within the proposed project. As noted in Response to Comment 2-2, if the school district acquires land within the ARBPRC project site, there would be no additional impacts associated with the construction of school facilities beyond that identified in the

Draft EIR, but if school districts acquire land outside the ARBPRC project area, the district would need to prepare a separate environmental analysis.

Response to Comment 2-4

The comment expresses interest in cooperating with the City of Manteca in the identification and development of joint use facilities and expresses particular interest in the event center. The comment is noted. The comment does not address the adequacy of the analysis in the Draft EIR and no further response is required.

Response to Comment 2-5

The comment suggests that the City cooperate with the Ripon Unified School District as well as with the Manteca Unified School District in the selection of suitable school sites. As discussed in Responses to Comments 2-1 and 2-2, as demonstrated by the General Plan goals and policies related to schools, it is the City's intention that adequate school facilities are available to serve new growth in the City. Consequently, the City will work with the school districts toward the provision of schools, including identification of sites appropriately zoned to accommodate school uses, irrespective of the school district that would serve the project.

Response to Comment 2-6

The comment refers to the projected number of students generated by the proposed project, based on the number of housing units and the student yield rates for the Ripon Unified School District and Manteca Unified School District, as shown in Table 5.7-2 on page 5.7-17 of the Draft EIR. The information provided in the Draft EIR was intended to disclose the potential number of students that could be generated within each of the districts, based upon the student generation rates of the respective district. The table was not intended to be used as the basis for the imposition of school fees on the project. The City is not aware of the methodology used by the districts to obtain the student generation rates or why the Manteca Unified School District generation rates are higher than those of the Ripon Unified School District. Further, the City cannot speculate as to which is the more accurate predictor for student generation in the case of the proposed project. However, as noted by the commenter, if the student generation within the project site would be consistent with the rates for the Manteca Unified School District, the proposed project would result in approximately 1,983 students in the southern portion of the project site (within the Ripon Unified School District boundaries) and a total of 3,447 students. The Draft EIR acknowledges (page 5.7-17) that additional students could have a significant impact on the school districts, but the impact would be reduced through the payment of school fees that are required for all new development. The fees are based upon the number of residential units, and not on an estimate of the number of students generated. The proposed project developer(s) would be required to pay all development impact fees for the purpose of providing educational services to students within the proposed project.

The extent to which there would be physical environmental effects would be dependent upon where any new facilities are constructed. As discussed in Response to Comment 2-2, if the school district acquires land within the ARBPRC project site, there would be no additional impacts associated with

the construction of school facilities beyond that identified in the Draft EIR. If the school district acquires land outside the ARBPRC project area, however, the district would need to prepare a separate environmental analysis to determine the potential impacts in those offsite areas.

STATE OF CALIFORNIA Arnold Schwarzenegger, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

May 20, 2010

Erika Durrer
Senior Planner
City of Manteca
1001 W. Center Street
Manteca, CA 95337

Re: Notice of Completion-Draft Environmental Impact Report (DEIR)
Austin Road Business Park and Residential Community
SCH # 2009012044

Dear Ms. Durrer:

As the state agency responsible for rail safety within California, the California Public Utilities Commission (CPUC or Commission) recommends that development projects proposed near rail corridors be planned with the safety of these corridors in mind. New developments and improvements to existing facilities may increase vehicular traffic volumes, not only on streets and at intersections, but also at at-grade highway-rail crossings. In addition, projects may increase pedestrian traffic at crossings, and elsewhere along rail corridor rights-of-way. Working with CPUC staff early in project planning will help project proponents, agency staff, and other reviewers to identify potential project impacts and appropriate mitigation measures, and thereby improve the safety of motorists, pedestrians, railroad personnel, and railroad passengers.

We concur with the interim improvements as part of the mitigation measures for this project on page 5.9-40 of the DEIR, "Austin Road/Moffat Boulevard-Install a traffic signal that is pre-empted by the crossing protection devices at the adjacent Union Pacific Railroad crossing". We also concur with mitigation measure 5.9-1 c.) "The City of Manteca shall update the PFIP to include the realignment of Woodward Avenue, a new intersection with a traffic signal at Woodward Avenue Extension/Austin Road, a new intersection with a traffic signal at Woodward/Avenue/Woodward Avenue Extension, a new intersection with traffic signal at Woodward Avenue/Moffat Boulevard. These final two signals shall be pre-empted by the crossing control devices at the adjacent Union Pacific Railroad crossing". These sections need to include the CPUC and reference to General Order 88-B Rules for altering public Highway crossings. Also a safety diagnosis needs to be completed prior to any proposed reconstruction of any at-grade railroad crossing in coordination with the CPUC. Please make the same modifications to the summary of impacts and mitigation measures on p.3-23 and p. 5.9-50 of the DEIR. 3-1

It is recommended that the City include in their PFIP for a grade separation at this location to accommodate this projects impact and cumulative impacts of future development, otherwise public safety will be exacerbated without a future grade separation. It is further recommended that the PSR being completed by Caltrans for the Austin Road/SR 99interchange also include the adjacent at-grade railroad crossing in the alternative analysis due to its proximity to the interchange. 3-2

We look forward to reviewing the FEIR with appropriate modifications that address the above comments by CPUC staff.

Thank you for your consideration of these comments. Please contact David Stewart, Utilities Engineer, at ((916) 928-2515 or email at atm@cpuc.ca.gov for questions regarding the crossing modification process with the Commission.

If you have any questions in this matter, please contact me at (415) 713-0092 or email at ms2@cpuc.ca.gov.

Sincerely,

Moses Stites
Rail Corridor Safety Specialist
Consumer Protection and Safety Division
Rail Transit and Crossings Branch
180 Promenade Circle, Suite 115
Sacramento, CA 95834-2939

LETTER 3: California Public Utilities Commission

Response to Comment 3-1

The comment refers to the interim improvements proposed as part of the ARBPRC project and states that the signals shall be pre-empted by the crossing control devises at the railroad crossing. Mitigation Measure 5.9-1 includes a requirement for signal coordination and pre-emption for the proposed signals at Woodward Avenue/Woodward Avenue Extension and Woodward Avenue/Moffat Boulevard (see Draft EIR page 5.9-50). However, the description of Mitigation Measure 5.9-1 has been modified to include a note that any modifications to existing at-grade railroad crossings will need to be coordinated with the CPUC and include a safety diagnosis. The text of Mitigation Measure 5.9-1 on page 5.9-44 in the Draft EIR is changed as follows:

5.9-1 a) *The project applicant and the City of Manteca shall work with Caltrans and the California Public Utilities Commission to obtain the necessary permits and conduct an at-grade railroad crossing safety diagnosis to construct the improvements described below.*

Response to Comment 3-2

The comment recommends that the City of Manteca include a grade separation of Austin Road over the UPRR tracks to mitigate project-related and cumulative impacts. While the Draft EIR (page 5.9-44 and page 5.9-84) define traffic congestion impacts at the intersections near the Austin Road/ UPRR crossing, the Draft EIR specifically identifies a less than significant impact at the Austin Road and Woodward Avenue UPRR crossings. As described in the Draft EIR (pages 5.9-57 through 5.9-58), this less than significant finding is based on the very low historic crash rates at the intersections and Federal Railroad Administration data that indicate that the types of warning devices currently installed at the crossings have lower than average crash rates when compared to all other at-grade warning devices.

The primary access to the ARBPRC from SR 99 would be from the proposed McKinley Avenue interchange, which would include a grade-separation over the adjacent UPRR tracks. In conjunction with this new interchange, on- and off-ramps at the existing Austin Road interchange would be eliminated. Therefore, this modification would substantially reduce vehicular traffic at the existing at-grade railroad crossing on Austin Road. Additionally, the realignment of Woodward Avenue would allow access to the potential new interchange at McKinley Avenue without crossing the UPRR tracks. For these reasons, along with the historically low crash history at the existing crossing, the City is not pursuing a grade separation at the existing UPRR crossing on Austin Road.

Letter 4

City of Ripon

259 N. Wilma Ave. • Ripon, California 95366
Phone 209 599-2108 • Fax 209 599-2685
www.cityofripon.org

May 26, 2010

Mrs. Erika Durrer
City of Manteca
1001 W. Center Street
Manteca, CA 95337

Re: Comments in Response to the Draft Environmental Impact Report for the proposed Austin Road Business Park and Residential Community Project

Dear Mrs. Durrer:

The City of Ripon appreciates the opportunity to review and comment upon the Draft Environmental Impact Report (the "DEIR") for the above referenced project. The City of Ripon has an obligation to its residents to ensure that impacts on the community are thoroughly evaluated and mitigated.

The City of Ripon submits the following comments and requests that they be fully addressed in the Final EIR.

PRELIMINARY CONCERNS

According to the DEIR the City of Manteca has prepared a Master Plan to guide the future development of the project site. As discussed this Master Plan is intended to define proposed land uses, promote compatibility between land uses, and ensure that future development of the project site is accomplished in a comprehensive manner that is consistent with the framework of master planned roads, building areas, and open space. The DEIR states that major components of the Master Plan include Land Use Plans, Design Guidelines and Phasing Plans. To date, the City of Ripon has not had an opportunity to view this document which supposedly defines many of the specific design elements of the project, including phasing and timing of necessary on and offsite improvements for the entire project.

4-1

1. **Land Use**
   a. As noted in our comments on the NOP, and inaccurately addressed in the DIER, there are two parcels (APN's 228-090-07 and 228-090-11) within the City of Manteca's sphere of influence that are not a part of this project but are for the most part substantially surrounded by the project. Again the potential future land uses including future planned facilities and circulation elements should be included for those two parcels on the southern border of the project that are not a part of this project in order to accurately address future potential concerns and impacts regarding their use. 4-2
   b. There appears to be some inconsistency with the Manteca's General Plan Land Use goals and policies and the Austin Road Business Park and Residential Community Project. 4-3
      i. Goal LU-5, Policy LU-P-37 states that the City of Manteca **shall** designate adequate land, appropriately located for City, County, and School District facilities. According to the proposed land use plan for the project, there have been no areas identified for such uses. It does not appear that there have been any discussions or agreements made for such provisions with either Manteca Unified School district or Ripon Unified School district, both of which would be required to serve this project. 4-4
      ii. Goal LU-8, Policy LU-P-53 states that the City of Manteca **shall** cooperate with the City of Ripon in implementing the principle points of the Memorandum of Understanding (MOU) regarding future land use and public services and facilities in the area between the two cities. To date the City of Ripon has had no discussions or meetings with the City of Manteca regarding the MOU; however the Master Plan for the project shows buffer areas and roadway networks. Is the buffer area shown adequate, and has it been agreed upon between the two agencies as the MOU requires? Do the public services and facilities shown on the Master Plan, such as roadway networks and inter-regional connectivity between the two communities comply with the requirements of the MOU? The Master Plan or the DEIR does not address any of the requirements of this MOU in enough detail to determine compliance with either the MOU or the goals and policies of the General Plan. 4-5
      iii. Goal LU-8, Policy LU-P-54 states that the City of Manteca **shall** cooperate with the City of Ripon in identifying a suitable location for an interchange at Highway 99 connecting to major roads in Ripon and Manteca. This cooperation did take place and manifested itself in the form of a report dated May 19, 2006. This report, the State Route 99 Feasibility Study - New Austin Road Interchange and Olive Expressway Interchange was compiled by Quincy Engineering, under the direction of the City of Manteca and the City of Ripon in cooperation with Caltrans, San Joaquin Council of Governments and San Joaquin County. In the report, it indicates the locations of the two interchanges, the Olive Expressway Interchange would be located exactly 1 mile north of the Jack Tone Road Interchange and the new Austin Road Interchange would be located exactly 2 miles north of the Jack Tone Road Interchange. The Olive Expressway Interchange and the Austin Road Interchange are also part of the approved State Route 99 Corridor System Management Plan, which was compiled by Caltrans and adopted in September 4-6

of 2008. Both interchanges are also part of the Regional Transportation Plan (RTP) compiled by the San Joaquin Council of Governments. The project Master Plan or the DEIR does not address the exact placement of the McKinley avenue interchange or any of the logistics of interconnectivity of the roadway network for both communities. Does the proposed interchange for the project comply with minimum Caltrans spacing requirements of 1 mile between interchanges, McKinley Avenue Interchange and Olive Expressway Interchange or McKinley Avenue Interchange and Austin Road Interchange? The logistics of placement of the McKinley Avenue Interchange and compliance with all applicable master plans should be addressed in the DEIR. This process of master planning without inter-agency cooperation appears to be in direct violation with the City of Manteca's General Plan stated Land Use goals and policies.

4-6 (cont.)

c. Also included in the Land Use section of the DEIR it mentions that LAFCO is responsible for encouraging orderly growth and development essential to the social, fiscal, and economic well-being of the state. In order to implement the requirements listed above, LAFCOs have the specific authority to review several actions including annexations to, or detachment from cities or districts and also the consolidation or reorganization of cities and districts. The DEIR fails to mention that the majority of this project actually resides within the Ripon Consolidated Fire Districts boundaries. The DEIR inaccurately specifies that the project lies within the Lathrop/Manteca Fire district and upon annexation to the City of Manteca will be detached from the Lathrop/Manteca Fire district and be served by the City of Manteca's Fire district. There is absolutely no mention of the Ripon Consolidated Fire district within the DEIR, or has the Ripon Consolidated Fire district been included in any discussions regarding this project? Again LAFCO is the governing agency when it comes to district detachments or boundary reorganizations; however the impact to the Ripon Consolidated Fire district should be included in this evaluation.

4-7

d. Another area of the Land Use section of the DEIR under Planned Adjacent Land Uses again refers to the Memorandum of Understanding (MOU) between the cities of Manteca and Ripon. It is mentioned again that the MOU has been implemented to reduce the potential for land use conflicts and that the cities should work cooperatively on planning efforts along the common boundaries of the cities, including but not limited to provisions for the extension and connection of pedestrian and bikeway systems along the Highway 99/UPRR railroad corridor. Again to date the City of Ripon and the City of Manteca have not had any meetings regarding the requirements of the MOU and the DEIR does not address any of the requirements of the MOU in enough detail to determine its compliance. Are there any planned pedestrian or bikeway connections between the two jurisdictions within the project?

4-8

e. Lastly, the Land Use section of the DEIR discusses methods of land use evaluation and consistency of the Master Planned project with City of Manteca's General Plan. As stated in this section the City of Manteca's City Council is ultimately responsible for interpreting the City's General Plan and would be the governing body to determine if the project is consistent with any and all adopted land use policies within the General Plan. The DEIR consultant goes on to say in

4-9

this section, that based upon the evaluations contained in this EIR, that the proposed project is generally consistent with the Manteca General Plan. The City of Ripon would like to voice some strong concerns regarding the consistency of the proposed project with the City of Manteca's General Plan Land Use policies and goals. As discussed earlier in this letter, the City of Manteca has failed to adequately address several of their Land Use goals and policies as stated in their General Plan regarding this project. The Manteca City Council should take into consideration the failure to meet their own General Plan goals and policies when making their decision on the adequacy of this project meeting General Plan consistency. 4-9 (cont.)

f. Parts of the proposed construction of the McKinley Avenue interchange show a relocation of a portion of State Route 99 which creates open and vacant parcels in the North/East vicinity of the project. The DEIR should address these newly created parcels and their proposed land uses. How will these parcels inter-relate to the entire project and proposed interchange? What impacts do these parcels have on the planned circulation element of this project? 4-10

2. Public Services

a. The Public Services section of the DEIR states that the project site is currently served by the Lathrop/Manteca Fire Protection District. It appears that approximately 837 acres of the 1049 total acres for the project are within the Ripon Consolidated Fire District. That means that approximately 80% of the land proposed for the project is within the Ripon Consolidated Fire District, however the DEIR does not address any impacts to the Ripon Consolidated Fire District and even fails to mention their projects existence within the Ripon Consolidated Fire Districts boundaries. The DEIR does go on to say that once the property is annexed into the City of Manteca, that the project site would be detached from the Lathrop/Manteca Fire Protection District which is essentially 212 acres or 20% of the project area. How is the remainder of this project site going to be served? Detachment from Ripon Consolidated Fire District? Only LAFCO can make this determination. 4-11

b. The Public Services section of the DEIR also attempts to address schools. Goal PF-13, Policy PF-P-33 states that the City of Manteca shall cooperate with the Manteca Unified School District and **other agencies** in locating and reserving appropriate sites for new neighborhood walking distance schools. Also Policy PF-P-35 states that financing of new school facilities will be planned concurrent with new development. As mentioned earlier in the DEIR approximately 849 acres or 81% of the project site is located within the Ripon Unified School District. The DEIR goes on to say that impacts to the school districts would be reduced through the payment of school fees alone, however it also mentions that to assist in providing adequate facilities to serve students generated by new development, the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purposes of funding the construction or reconstruction of school facilities. There is no mention in the DEIR that the Ripon Unified School District was contacted or included in the master planning of this project even though 81% of the project site is within their boundaries. Is the 4-12

Ripon Unified School District being dedicated land to provide neighborhood walking distance schools for the proposed residential units per the goals and policies of the Manteca's General Plan? 4-12 (cont.)

3. Transportation and Circulation

a. The Transportation and Circulation section of the DEIR again discusses a location of the McKinley interchange. Where exactly is this interchange located and how does it comply with Caltrans' standard of a minimum of 1 mile between interchanges? The City of Ripon's General Plan circulation element includes plans for an Olive Expressway Interchange, which again is part of the State Route 99 Corridor System Management Plan prepared by Caltrans, is part of the Regional Transportation Plan prepared by San Joaquin Council of Governments, and the State Route 99 Feasibility Study prepared in conjunction with the City of Manteca and the City of Ripon in cooperation with Caltrans, San Joaquin County, and San Joaquin Council of Governments. The planned location for the Olive Expressway Interchange is exactly 1 mile north of the Jack Tone Road Interchange at post mile marker 2.01. The City of Ripon is already collecting development fees for the proposed Olive Expressway Interchange and intends to build the interchange as part of the 2040 General Plan implementation. Please explain how the proposed McKinley Interchange complies with the 1 mile minimum interchange spacing required by Caltrans. 4-13, 4-14

b. Also mentioned in this section is the recommendation that the Cities of Manteca and Ripon coordinate with Caltrans and SJCOG to develop and participate in a sub-regional fee program to collect impact fees from new development in each city to help fund construction of this new interchange. As mentioned above, the City of Ripon is already collecting development fees for the Olive Expressway Interchange, now the City of Ripon will be expected to also impose another development fee for a new interchange that is fully within the City of Manteca's General Plan boundaries and does not comply with minimum Caltrans interchange spacing or has not even been approved by any agency? What happens if the multi-jurisdictional agencies cannot come to an agreement on this special sub-regional fee program for this proposed new interchange? 4-15

c. The DEIR very briefly mentions the San Joaquin County Congestion Management Program (CMP), but how does this project conform to that plan? What are the impacts of this project on that plan? The DEIR fails to analyze any of the impacts that this project would have on the CMP. 4-16

d. The DEIR also mentions traffic congestion concerns and safety concerns at the Austin Road at-grade crossing of the Union Pacific Railroad tracks. This should not be a significant and unavoidable impact. Appropriate mitigation measures that could alleviate both conditions would be a grade separation at the crossing. Why is this mitigation measure just being dismissed as infeasible? Also, what happens to the Austin Interchange if and when another interchange is constructed? Who is responsible for those modifications in any? The DEIR again fails to fully analyze the impacts of this project and superficially dismisses appropriate and responsible mitigation measures. 4-17, 4-18

e. The DEIR correctly states that there will be impacts to the State Route 99 Jack Tone Interchange and other County and City of Ripon roads and intersections. 4-19

Again the DEIR superficially dismisses any meaningful mitigation measures stating that the projects which would be required to mitigate the impacts of the Austin Road Business Park and Residential Community project cannot be guaranteed since the projects are located in other jurisdictions, therefore the impacts are considered significant and unavoidable. Why wouldn't a mitigation fee be imposed on this project to offset some of this projects impact on other jurisdictions' infrastructure? Again mitigation should be identified and imposed BEFORE the project develops to reduce projected impacts to the City of Ripon's facilities to less than significant levels.

4-19 (cont.)

f. Lastly, the Transportation and Circulation section very briefly touches on Bicycle and Pedestrian circulation elements. Again is has been mentioned in the DEIR that the MOU has been implemented to reduce the potential for land use conflicts and that the cities should work cooperatively on planning efforts along the common boundaries of the cities, including but not limited to provisions for the extension and connection of **pedestrian and bikeway systems** along the Highway 99/UPRR railroad corridor. Again to date the City of Ripon and the City of Manteca have not had any meetings regarding the requirements of the MOU and the DEIR does not address any of the requirements of the MOU in enough detail to determine its compliance. Are there any planned pedestrian or bikeway connections between the two jurisdictions within the project?

4-20

CONCLUSION

The City of Ripon looks forward to receiving responses to the comments offered above, and hereby requests formal notification of any public hearings that may be scheduled with respect to the proposed project. Again thank you for the opportunity to review and comment on the Draft Environmental Impact Report for the Austin Road Business Park and Residential Community Project. The City of Ripon reserves the right to supplement these comments and provide additional comments in the future.

Sincerely,

Ken Zuidervaart, Director
Planning and Economic Development

Cc: City Council
Leon Compton, City Administrator
Tom Terpstra, City Attorney

LETTER 4: City of Ripon

Response to Comment 4-1

The Master Plan document is available for review on the City's website www.ci.manteca.ca.us.

Response to Comment 4-2

The comment states there are two parcels within the City Sphere of Influence, but not within the project boundaries, and requests additional information about the future development of those parcels to address potential effects of development. Because those parcels are not included in the project and are within the jurisdiction of San Joaquin County, the Draft EIR did not speculate as to what type of development would occur on those parcels and their development was not addressed in the Draft EIR. At such time that development is proposed on those parcels, the City would require the appropriate level of environmental documentation and annexation to the City of Manteca.

Response to Comment 4-3

The comment contends there are apparent inconsistencies with the General Plan. As discussed in the responses below, the project is not inconsistent with the General Plan.

Response to Comment 4-4

The comment refers to General Plan Policy LU-P-37 regarding designation of land for public facilities, including schools. As noted in Response to Comment 2-3, schools are permitted uses in residential and public/quasi-public districts, and several areas within the ARBPRC carry these zoning designations (403.9 acres Low/Medium Density Residential; 46 acres High Density Residential; and 94.5 acres Public/Quasi-Public, though not all of this acreage would be available for school use). Therefore, schools can be accommodated within the proposed project.

Response to Comment 4-5

The comment refers to Policy LU-P-53, which references a Memorandum of Understanding (MOU) between the City of Manteca and City of Ripon and concludes that the Draft EIR does not contain enough information to conclude if the project is consistent with the MOU. The MOU to which the comment refers includes points addressing amendment of both Cities' Sphere of Influence boundaries to reflect a cooperative exchange of planning land area between the cities, cooperation in establishing policy statements in each of the Cities' General Plans to support cooperative planning efforts along the common boundaries of the cities, and a policy statement for each city regarding pedestrian and bikeway connections in the vicinity of the ARBPRC project.

The proposed project is within the City of Manteca's Sphere of Influence and would not extend into the City of Ripon's Sphere of Influence. The southern portion of the proposed project would be similar to the existing General Plan Land Use designations, with residential, industrial, and public/quasi-public land uses under the proposed project. The project would, therefore, not impede the ability of the City of Manteca and City of Ripon to cooperate in establishing General Plan policy

statements regarding planning efforts in the area. One of the objectives of the proposed project is to "provide a pedestrian oriented neighborhood compatible with the Austin Road Business Park and Planned Community site, with pedestrian features that include safe, comfortable sidewalks and relatively direct routes to schools, parks, and commercial services". The Master Plan also includes the objective to link residential, employment, and commercial areas via the street network, bike trails, and pedestrian walks. In addition, Manteca General Plan Policies C-P-33, C-P-35, C-P-36, and CD-P-31, which are intended to provide convenient pedestrian and bicycle facilities, would guide future development in the project area as future development projects are submitted to the City. Consequently, the proposed project would not impede the ability to cooperate in developing policy statements for each city regarding pedestrian and bikeway connections. Therefore, the proposed project would not be inconsistent with the MOU. The City of Manteca will coordinate with the City of Ripon as development occurs in the southern portion of the city.

Response to Comment 4-6

The comment refers to Policy LU-P-54, which states that the City of Manteca shall cooperate with the City of Ripon for the location of the interchange between Manteca and Ripon. It should be noted, however, that while the City of Manteca can provide input on the location of the interchange, Caltrans is the lead agency for the interchange project and ultimately has the decision as to its location. Although the proposed project includes assumptions for the location of the interchange, the ARBPRC project is not driving the location of the interchange: the proposed project land use plan and circulation improvements are a response to the interchange location currently being considered by Caltrans.

Response to Comment 4-7

The comment states that the majority of the project site is currently within the service area of the Ripon Consolidated Fire District boundary. The comment is noted and the text on page 5.7-2 of the Draft EIR is changed as follows:

> The project site is currently served by the Ripon Consolidated Fire Protection District (RCFPD), which serves the City of Ripon and rural areas near Manteca and Ripon; and Lathrop-Manteca Fire Protection District (LMFPD), which serves the City of Lathrop, rural Lathrop, and rural Manteca. Under the proposed project, the project site would be detached from LMFPD and RCFPD. Upon detachment from LMFPD and RCFPD and annexation to the City of Manteca, the project site would be served by the City of Manteca Fire Department (MFD).

The comment also states that impacts on the Ripon Consolidated Fire District were not included in the Draft EIR, but the comment does not suggest any impacts that would occur. As discussed on page 5.7-1 of the Draft EIR, in response to a comment on the Notice of Preparation from the Ripon Consolidated Fire District, potential changes in tax revenue do not represent negative physical changes in the environment and, therefore, were not addressed in the Draft EIR. Also see Response to Comment 4-11.

Response to Comment 4-8

The comment states that the Draft EIR does not address the requirements of the MOU. As discussed in Response to Comment 4-5, the MOU is intended to promote cooperation in the exchange of planning land area between the cities, and cooperation in establishing policy statements in each of the Cities' General Plans to provide cooperative planning efforts along the common boundaries of the cities and for pedestrian and bikeway connections in the vicinity of the ARBPRC project. The MOU does not contain specific provisions for how the planning must take place or specific requirements for the provision of bicycle or pedestrian facilities. As noted in Response to Comment 4-5, as future development applications are submitted to the City, the City would review the applications to ensure compliance with the Master Plan and General Plan policies regarding pedestrian and bicycle facilities. As noted above, the City of Manteca will coordinate with the City of Ripon as development occurs in the southern portion of the city.

Response to Comment 4-9

The opinion in the comment that the project is not consistent with the General Plan is noted and is forwarded to the decision makers for their consideration.

Response to Comment 4-10

The comment refers to parcels that would be created by the relocation of the McKinley Avenue interchange. The referenced parcels are not within the control of the project applicant for the proposed project and would be outside of the project area. Consequently, no land uses are proposed under the ARBPRC project. As noted in Response to Comment 4-6, Caltrans is the lead agency for the McKinley Avenue interchange project and the proposed project is simply responding to the configuration that is currently being considered by Caltrans. Because any newly-created parcels would be under the control of Caltrans, the future disposition of those parcels is uncertain at this time. At such time that the interchange is constructed and the ownership of any new parcels is resolved, the City would participate in land use planning for the area.

Response to Comment 4-11

The comment regarding a portion of the project site being within the boundaries of the Ripon Consolidated Fire District is noted and the text of the Draft EIR was changed, as shown in Response to Comment 4-7. As discussed on pages 5.7-5 and 5.7-6 of the Draft EIR, it is the City's intention that the project site be served by the City of Manteca Fire Department. Service by the Manteca Fire Department and detachment from the existing fire service provider was assumed in the Draft EIR (see page 5.7-2). Like detachment from the Lathrop-Manteca Fire Protection District, detachment from the Ripon Consolidated Fire District would not itself result in physical environmental effects. As noted in the comment, LAFCO would be required to approve the detachment.

Response to Comment 4-12

The comment refers to General Plan Policy PF-P-33, which requires cooperation with the Manteca School District and other agencies regarding school sites and questions if dedication of land to the

Ripon Unified School District is included as part of the project. Although the proposed project does not include dedication of land for schools, the General Plan does not require dedication of land to school districts. As discussed in Responses to Comments 2-3 and 4-4, several land areas within the ARBPRC are proposed for residential and public/quasi-public zoning and schools are permitted in these districts. Therefore, schools could be developed in any of these areas. As tentative maps for future residential development are submitted to the City, the City will ensure the developer works with the school districts regarding the appropriate location and size of school sites.

Response to Comment 4-13

The comment refers to the location of the potential interchange shown on the project site plans. As noted in Response to Comment 4-6, this interchange is not part of the project, but its location is being accommodated based on comments from Caltrans on a separate Project Study Report (PSR) process being carried out between the City of Manteca, SJCOG, and Caltrans. Since the PSR is not complete, the interchange location has not been finalized; however, the interchange shown on the site plan is approximately 2 miles south of the SR 120 interchange and 1.2 miles north of the Jack Tone interchange. It should be noted that while this spacing does not meet the one mile spacing between the proposed Olive Expressway interchange, this location was dictated by Caltrans to meet the 2 mile spacing requirements from the SR 120/SR 99 interchange.

Response to Comment 4-14

The comment questions how the McKinley Avenue interchange shown on the project site plans meets the 1 mile spacing requirement from the proposed Olive Expressway interchange. As shown, this interchange does not meet the 1 mile spacing requirements between the proposed Olive Expressway interchange. However, as noted in Response to Comment 4-13, the McKinley Avenue interchange is not proposed as part of the project: the site plan for the proposed project is dictated by the location of the interchange as currently being considered by Caltrans.

The SR 99/Austin Road (McKinley Avenue) and SR 99/Olive Expressway interchanges are both listed as planned interchange projects on page 24 of the *Draft State Route 99 Corridor System Management Plan – CSMP* (Caltrans, 2008). Similarly, they are each listed as Tier II projects in the *2011 Draft Regional Transportation Plan* (SJCOG). Since minimum interchange spacing standards preclude construction of both interchanges, their joint inclusion in these documents is an indication that additional discussion/evaluation is necessary to select a preferred location.

Response to Comment 4-15

The comment questions the proposed sub-regional fee program to implement a future interchange in the southern portion of the Austin Road Business Park and Residential Community Site. The sub-regional fee would consider existing fee obligations, such as those already imposed by Ripon on development to help fund the SR 99/Olive Expressway interchange. Furthermore, the sub-regional fee could be designed with a benefit district such that various sub-areas are assessed fees proportionate to their use/benefit from the new interchange. If a sub-regional fee cannot be agreed

upon, the SR 99/McKinley Avenue interchange may not be constructed, or may be constructed with a different configuration using funding from Manteca, SJCOG, and other state and federal sources.

Response to Comment 4-16

The comment questions how the proposed project conforms to the San Joaquin County Congestion Management Program (CMP). In general, the CMP defines level of service (LOS) standards for regional roadways and transit systems and identifies strategies that local agencies can implement to reduce demand for single occupant vehicle use and vehicle miles traveled (VMT) growth. In addition, the CMP defines local agency requirements regarding the development of a Deficiency Plan for CMP roadways that are not operating at the defined LOS standard.

The EIR analysis for the project examined traffic operations on the nearby CMP facilities, including SR 120, SR 99, Jack Tone Road, and W. Ripon Road. For each of these facilities, the potential project impacts on existing and cumulative traffic operations were identified and mitigation measures were developed to reduce the significance of the project impacts to meet the SJCOG CMP LOS threshold. In addition, it should be noted that the proposed land use plan incorporates measures to reduce overall project-related and regional VMT through the incorporation of on-site mixed-use development and improving the jobs/housing balance in Manteca and San Joaquin County.

Response to Comment 4-17

This comment refers to a significant and unavoidable impact at the Austin Road/Union Pacific Railroad (UPRR) crossing and questions why the grade separation mitigation was defined as infeasible. The Draft EIR did not find that mitigation was infeasible. The Draft EIR (page 5.9-44 and page 5.9-84) describes traffic congestion impacts at the intersections near the Austin Road/UPRR crossing and concluded this would be a less than significant impact at the Austin Road and Woodward Avenue UPRR crossings. As described in the Draft EIR (pages 5.9-57 through 5.9-58), this less than significant finding is based on the very low historic crash rates at the intersections and Federal Railroad Administration data that indicates that the types of warning devices currently installed at the crossings have lower than average crash rates when compared to all other at-grade warning devices. Since a significant impact was not determined at this location, there is no need to consider a mitigation measure requiring grade separation.

Response to Comment 4-18

This comment questions what happens to the existing Austin Road interchange in the event that the potential McKinley interchange is constructed. Under this scenario, Caltrans has indicated that the on- and off-ramps to Austin Road would be closed. These modifications would be carried out by Caltrans as part of the McKinley interchange construction project.

Response to Comment 4-19

This comment refers to the significant and unavoidable impacts defined for roads in the County and City of Ripon. The Draft EIR identifies mitigation measures to reduce the significance of project-

related impacts on Austin Road (between the project's southern boundary and W. Ripon Road) and W. Ripon Road (between Austin Road and Jack Tone Road). However, since these roadways are outside of the control of the project applicant or the City of Manteca, there is no guarantee that the identified mitigation measures would be constructed. The courts have found that paying an impact fee was not feasible mitigation when the City has no power to compel other jurisdictions to improve the roadways. (*Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912.) It is important to note that the significant and unavoidable impact finding does not preclude the implementation of the mitigation measure through an agreement that would require the project applicant to construct or contribute a fair-share payment for the improvements. The cities of Manteca and Ripon, along with San Joaquin County, are encouraged to establish a coordinated capital improvement plan for these two roadways and define how the improvements will be funded and implemented.

The comment also suggests that mitigation be imposed before the project develops to reduce impacts on City of Ripon facilities. The CEQA statutes do not require mitigations to be implemented prior to, or concurrent with the onset of an impact. Rather, they require mitigations to be implemented within a reasonable period of time.

Response to Comment 4-20

The comment refers to the provision of pedestrian and bicycle facilities along the SR 99/UPRR corridor that could eventually connect the cities of Ripon and Manteca. As noted in the Draft EIR, the site plan submitted by the project applicant does not provide details about the internal bicycle or pedestrian network. However, Mitigation Measures 5.9-10 and 5.9-11 (Draft EIR pages 5.9-56 and 5.9-57) require the developer to include bicycle facilities that are required by the City's Bicycle Master Plan, or City code. The City will review future development plans as the project evolves and more detailed tentative maps are developed, to ensure that adequate bicycle and pedestrian facilities are provided, consistent with the City's standard plans and the Bicycle Master Plan. It should be noted that per the Bicycle Master Plan, the regional connector is shown on the east side of SR 99, which is not within the project area. Also see Response to Comment 4-8.

Linda S. Adams
Secretary for Environmental Protection

California Regional Water Quality Control Board
Central Valley Region

Katherine Hart, Chair

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Arnold Schwarzenegger
Governor

26 May 2010

Erika Durrer
City of Manteca
1001 W. Center Street
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COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT, AUSTIN ROAD BUSINESS PARK AND RESIDENTIAL COMMUNITY PROJECT, CITY OF MANTECA, SCH#2009012044

The California Environmental Quality Act (CEQA) provides an opportunity for the Regional Water Boards to exercise their authority to require minimization and mitigation of impacts to the waters of the state. The proposed Austin Road Business Park and Residential Community (Project) is within the regulated area covered by the City of Manteca (Permittee) *Storm Water Discharges from Small Municipal Separate Storm Sewer System* (MS4 Permit), *NPDES Order No. CAS000004, State Water Resources Control Board Water Quality (SWRCB) Order No. 2003-0005-DWQ,* which is regulated by the Central Valley Water Board. Studies have found the amount of impervious surface in a community is strongly correlated with the impacts on community's water quality. New development and redevelopment result in increased impervious surfaces in a community. Post-construction programs and design standards are most efficient when they involve (i) low impact design; (ii) source controls; and (iii) treatment controls. The design standards include minimum sizing criteria for treatment controls and establish maintenance requirements. One of the main goals of the MS4 Permit is to protect water quality from the impacts of storm water runoff from new development and re-development projects to the Maximum Extent Practicable. The intent is that storm water quality impacts will be considered in all aspects of a municipality's activities and that multiple departments within the municipality will work together to implement storm water BMPs. For instance, the **planning department** should coordinate with the **public works department** when considering projects and their potential storm water impacts, for both constructability and maintenance of BMPs.

5-1

The proposed Project is also regulated by the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, *NPDES Permit No. CAS000002, State Water Resources Control Board Water Quality (SWRCB) Order (Order) No. 2009-0009-DWQ,* which is regulated by the Central Valley Regional Water Quality Control Board (Central Valley Water Board). One of the minimum control measures in the Order includes **Post Construction Standards (Section XIII)**. The Order states that the Permittee must require long-term post-construction Best Management Practices (BMPs) that protect water quality and control runoff flow ideally to the pre-development levels to be incorporated into development and significant redevelopment projects.

5-2

Comments on the Proposed Development

The Central Valley Water Board considers storm water discharges from the Permittee's developed area to be potential significant sources of pollutants that need mitigation. In this regard, we focus our review on the Hydrology and Water Quality portion of the document. 5-3

The Storm Water Pollution Prevention Plan (SWPPP) for the proposed project should include pollution controls both during construction and post-construction complying with standards required by the SWRCB Order.

Specific design strategies and standards that address low impact development and hydromodification concepts to provide source and treatment controls to minimize the short and long-term impacts on receiving water quality are not included. Details of low impact development and hydromodification strategies need to be addressed in the CEQA document. The following principals should be addressed in each and every project:

Low Impact Development (LID) and Hydromodification Strategies

On 20 January, 2005, Resolution 2005-0006 was adopted by the State Water Resources Control Board. The resolution adopted the concept of sustainability as a core value for all California Water Boards' activities and programs, and directed California Water Boards' staff to consider sustainability in all future policies, guidelines, and regulatory actions, including the review of applicable CEQA documents. 5-4

LID is a sustainable practice that benefits water supply and contributes to water quality protection. Unlike traditional storm water management, which collects and conveys storm water runoff through storm drains, pipes, or other conveyances to a centralized storm water facility, LID takes a different approach by using site design and storm water management to maintain the site's pre-development runoff rates and volumes. The goal of LID is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall.

Hydromodification strategies should include controls to manage the increases in the magnitude, volume and duration of runoff from development projects in order to protect receiving waters from increased potential for erosion and other adverse impacts, ideally to the pre-development levels. Hydromodification strategies should address, but not be limited to, the following:

- Requires incorporation of controls, including structural and non-structural BMPs, to mitigate the projected increases in flows;
- Controls post-development runoff rates and velocities from a site to avoid adverse impact on downstream erosion, flooding and stream habitat;
- Minimizes the quantity of stormwater directed to impermeable surfaces and the MS4s (municipal storm drain);
- Maximizes the percentage of permeable surfaces to allow more percolation of stormwater into the ground where feasible;
- Considers the full range of feasible BMPs; and

- Considers various assessment methodologies designed to evaluate the existing geomorphic condition of receiving waters, along with the expected susceptibility of these receiving waters to erosion/change as a result of hydromodification from land development and other land uses.

5-4 (cont.)

In this regard, we recommend the project proponent consider all the technically and economically feasible BMPs and applicable design standards to mitigating potential impacts of storm water runoff from the proposed project. Refer to the following websites for more information on LID and hydromodification strategies:

CEQA and Low Impact Development Stormwater Design:
http://www.opr.ca.gov/ceqa/pdfs/Technical_Advisory_LID.pdf

US EPA Low Impact Development Fact Sheets and Reports, Design/Guidance Manuals and Information Resources and Centers:
http://www.epa.gov/nps/lid/

Clean Water Act (CWA) Section 401 Water Quality Certification

5-5

The discharge of dredge or fill material to waters of the United States or waters of the State is subject to Section 401 of the CWA and the California Water Code (CWC). Section 401 requires that a Water Quality Certification be obtained from the State before the Army Corps of Engineers may issue a Section 404 permit. Any person discharging dredge or fill materials to waters of the State must file a report of waste discharge pursuant to Sections 13376 and 13260 of the CWC. Both the requirements to submit a report of waste discharge and apply for a Water Quality Certification may be met using the same application form, found at: http://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/wqc_application.pdf

If you have any questions regarding storm water or 401 Water Quality Certification, please contact me at (916) 464-4736 or *dradulescu@waterboards.ca.gov*.

Dan Radulescu, P.E.
Lead of the 401 / Municipal Storm Water Unit

cc: State Clearinghouse

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LETTER 5: California Regional Water Quality Control Board, Central Valley Region

Response to Comment 5-1

The comment states that the project is within the regulated area covered by the City of Manteca *Storm Water Discharges from Small Municipal Separate Storm Sewer Permit (MS4 Permit), NPDES Order No. CAS000004, State Water Resources Control Board Water Quality (SWRCB) Order No. 2003-0005-DWQ*. As noted in the comment, the referenced permit requires mitigation measures that would minimize impacts on waters of the State. Measures could include low impact design, source controls, or treatment controls. Compliance with the requirements of the permit would ensure that the proposed project would not result in significant water quality effects.

Response to Comment 5-2

The comment refers to General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No.2009-0009-DWQ) and states that best management practices (BMPs) would be required for the project. Order No.2009-0009-DWQ is described on pages 15, 16, and 25 of the Initial Study prepared for the proposed project, as is the requirement that the proposed project implement BMPs.

Response to Comment 5-3

The comment states that the project should implement pollution controls that are included in a stormwater pollution prevention plan (SWPPP). As discussed on page 25 of the Initial Study, construction activities on-site are regulated by the City's NPDES General Permit (General Construction Permit) for Discharges of Storm Water Runoff. Coverage under a General Construction Permit requires the preparation of a SWPPP and Notice of Intent to request coverage under the General Permit. The Notice of Intent includes site-specific information and the certification of compliance with the terms of the General Construction Permit. The SWPPP includes pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, a detailed construction timeline, best management practices (BMPs), and a monitoring and maintenance schedule to determine quantities of pollutants leaving the site.

Response to Comment 5-4

The comment refers to Low Impact Development (LID) and other hydromodification strategies that can be implemented to benefit water supply and contribute to water quality protection. As discussed on page 2-21 of the Draft EIR, the proposed project is requesting approval of a General Plan Amendment, Prezone, and Master Plan. The applicant is not requesting tentative maps at this time. At such time that applications for tentative maps are filed with the City, the City would review subsequent project applications to determine consistency with the Manteca General Plan, the Municipal Code, and the ARBPRC Master Plan. The City would also review the subsequent projects

to ensure compliance with the City's Storm Drain Master Plan, which would include implementation of BMPs and could include LID or other hydromodification strategies included in the comment.

Response to Comment 5-5

The comment provides information regarding discharge of dredge or fill materials in waters of the United States. As discussed on page 5.4-1 of the Draft EIR, a PBS&J biologist conducted an assessment of jurisdictional wetlands and waters on March 11, 2008 to determine whether there are any wetlands and/or Waters of the U.S. subject to jurisdiction of the Corps on the project site. Because the project site has been significantly altered due to past and current agricultural activity, evidence of wetlands or Waters of the U.S. were not observed during the survey.

SAN JOAQUIN COUNCIL OF GOVERNMENTS

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May 27, 2010

Ms. Erika Hollander
City of Manteca
1001 West Center Street, Manteca CA 95337

Re: Austin Rd. Business Park and Residential Community (DEIR) _SCH# 2009012044

Dear Ms. Hollander:

Thank you for the opportunity to comment on the NOP for the Austin Road Business Park and Residential Community Project (ARBPRC). As the County's designated Regional Transportation Planning Agency (RTPA), the Congestion Management Agency (CMA), and the Metropolitan Planning Organization (MPO), the San Joaquin Council of Governments (SJCOG) has reviewed the above-referenced document with respect to transportation and circulation impacts pursuant to the California Environmental Quality Act (CEQA).

The comments listed below are specific to the Regional Congestion Management Program and its relationship with the ARBPRC project. Comments specific to RTPA and MPO responsibilities begin on page five.

Establishing and maintaining a Regional Congestion Management Program (RCMP) is required by State Govt. Code, Section 65088 – 65089.10 and the County's Measure K Renewal Ordinance. The purpose of the RCMP is to monitor the cumulative transportation impacts of growth of the regional roadway system (the Network), establish a level of service standard, identify deficient regional roadways and develop plans to mitigate the deficiencies, and facilitate travel demand management and operational preservation strategies for existing and planned development.

The attached exhibit shows the roadways within San Joaquin County that are currently monitored as part of the adopted Network. Govt. Code, Section 65089 (b) (1) (A) mandates that "All new state highways and principal arterials shall be designated as part of the system…." Therefore, when McKinley Ave. is constructed as part of the project, an amended RCMP roadway network will be adopted to include this new principal arterial.

Comment #1
Page 5.9-10 under Local Regulations
San Joaquin County Congestion Management Program

The RCMP facilities that were identified within the project's direct influence with a potential impact should be expanded. In addition to SR 120 and SR 99, Ripon Rd. and Jack Tone Road are within the projects sphere of direct influence for impacts. Therefore, these three roadways should be added to the list of facilities included on page 5.9-10.

6-1

Comment #2
Page 5.9-10 under Local Regulations
San Joaquin County Congestion Management Program

It should also be noted that the CMP's established LOS standard is LOS "D" for all of its monitored roadways with some exceptions. Certain roadways were allowed to be "grandfathered" at their existing condition at the time of program inception in the early 1990s. Caltrans support or non-support of the standards set is not relevant in the context or requirements of the RCMP program. Therefore, please remove this statement.

6-2

Comments #3A/3B Project's conformance with CEQA Thresholds

The significance thresholds within the 2009 CEQA Guidelines, Appendix G, with a direct relation to CMA authority and the above background discussion are:

XV. TRANSPORTATION/TRAFFIC – Would the project:

1. *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?*

2. *Conflict with adopted policies, plans, or programs supporting alternative transportation?*

3A
The DEIR does not address either threshold as they relate to the Congestion Management Program. One of the major implementation actions of the RCMP is to establish and monitor Level of Service (LOS) conditions on the Network and to assess where any deficiencies exist (as calculated per the RCMP's adopted methodology). SJCOG requests that these two thresholds be added to Chapter 5.9 Transportation and Circulation - Standards of Significance Section and that additional analysis be completed to determine if the project will exceed the level of service standard, thus creating a significant impact. This analysis will also meet the intent of State CMP Statute, Section 65089 (4) relating to the Land Use Impact Analysis Program, which requires a complete analysis of impacts to the Network, including the costs associated with mitigating the impacts.

6-3A

Letter 6

The roadway segments that are on the Network and that should be included in this supplemental analysis are:

- SR 99 (Main St. Ripon to French Camp Rd.)
- Ripon Rd. (Austin Rd. to SR 99)

6-3A (cont.)

In determining a direct or cumulative significant impact, state CMP statute mandates that the following trips are excluded from the volumes used in determining the LOS:

1) Interregional travel (trips that originate outside the county's boundary);
2) Traffic generated by the provision of low-income and very low income housing;
3) Traffic generated by high-density residential development located within one-fourth mile of a fixed rail passenger station; and,
4) Traffic generated by any mixed use development located within one-fourth mile of a fixed rail passenger station, if more than half of the land area, or floor area, of the mixed use development is used for high density residential housing, as determined by the agency.

If after the trip exemptions are applied, the analysis shows that the project will have significant impacts to either SR99 (Main St. Ripon to French Camp Rd.) or Ripon Rd. (Austin Rd. to SR 99), the EIR will need to fully disclose, mitigate to the extent possible, and make Overriding Considerations, if necessary. Of important note is that in the event that the impact is significant and unmitigable and Overriding Considerations are adopted does not exempt the requirements of preparing a Deficiency Plan (DP). As these are deficiencies that are "planned", the best way to justify them is to have a pro-active DP as part of the mitigation measures. State Statute allows for two types of deficiency plans, one being a Direct-fix DP and the other a System-wide DP. If the roadway cannot, or if the jurisdiction deems it impractical, to directly fix the deficient road to meet the CMP LOS Standard, then a System-wide Plan would be appropriate. A System-wide deficiency plan is a mitigation plan for the allowance of a roadway to become deficient or remain deficient by promoting alternative improvements that will measurably improve multi-modal performance, and contribute to significant improvements in air quality (as detailed in Govt. Code 65089.4).

If a proactive plan is not prepared as part of this project's mitigation, the jurisdiction in which the deficient segment lies will have full responsibility to take the lead in preparing either a Direct-fix or System-wide DP. This will be required when the CMA, as part of its biennial update, determines that the roadway does not meet the LOS standard. As a reminder, the trip exemptions listed above will be deducted from the volumes as part of the analysis.

Once a roadway segment is identified as deficient, the agency where the majority of a segment physically lies will have twelve months to prepare a DP. Government Code Section 65089.4 details the required analysis and components of a DP.

3B

Travel demand management is an integral part of San Joaquin's congestion management program. Not only is this a mandated component of the state's CMP legislation (Section 65089(5)), it is also required by the voter approved Measure K Referendum. Additionally, the federal Congestion Management Process (mandated through SAFETEA-LU) stipulates that no federal funds will be advanced for capacity increasing projects unless travel demand reduction and operational strategies have been implemented, to the extent possible, on the roadway.

6-3B

Although roadway segments operating at LOS "D" (per RCMP methodology) are not considered deficient, this standard does trigger a requirement for the local jurisdiction. Certain roadway segments operating at LOS "D" are subject to the preparation of a plan that analyzes specific strategies for operational preservation and transportation demand management. These strategies include ensuring that new development projects provide provisions that will promote alternative travel. SJCOG is currently preparing a Regional Travel Demand Management Action Plan that will provide further guidance to the local jurisdictions, as well as land developers. This Plan is anticipated to be approved mid-summer 2010.

SJCOG recognizes that this is a Master Plan and, although the DEIR does not specify, SJCOG assumes that a Specific Plan(s) or other subsequent discretionary reviews will be required before any future development will be approved. The ARBPRC should be conditioned to ensure that, as development plans are processed, they include provisions for supporting travel by bicyclists, pedestrians, transit passengers, and carpools. These provisions include on-site construction, roadway design, off-street parking areas, development of park-and-ride lots, and participation in San Joaquin COG's Commute Connection (www.commuteconnection.com).

Commute Connection is the regional rideshare program operated by the San Joaquin Council of Governments whose mission is to reduce traffic congestion and improve air quality. The program is designed to help commuters make the transition from driving alone to a convenient ridesharing option such as carpooling, vanpooling, bicycling/walking or riding transit. The program serves San Joaquin County and through a special agreement with the Stanislaus Council of Governments, also serves Stanislaus County. The program includes free services such as commuter ride-matching, Guaranteed Ride Home and Employer Services.

Coordination with Commute Connection services/programs will be required for the following development types:

- All business or industrial parks
- All event centers or stadiums
- Schools with greater than 150 students
- All commercial, industrial, and retail offices with greater than 50 full-time equivalent employees

Letter 6

Therefore, as a means of mitigating any potential significant effect regarding a conflict with adopted policies, plans, or programs supporting alternative transportation SJCOG requests that measures be added that will ensure that future development per the ARBPRC will include provisions for alternative travel, as discussed above, and that the land uses listed above will participate in SJCOG's Commute Connection Program. 6-3B (cont.)

The comments listed below are specific to the RTPA and MPO responsibilities. CMA comments regarding the Regional Congestion Management Program were given above beginning on page one.

Comment #4 Project funding through the Regional Transportation Impact Fee (RTIF) program

The proposed SR -99 @ McKinley Ave. Interchange project is not eligible for funding through the RTIF program. Any new projects recommended for listing as an eligible RTIF Capital Project must be modeled and screened consistent with the requirements of the Mitigation Fee Act (Gov. Code §§ 66000 et seq.) criteria for establishing a rational nexus. Adding a new interchange project to the RTIF Project List must meet the following criteria: 6-4

1. The project is on the adopted Regional Transportation Network; and,
2. The project is scheduled for delivery within the time frame evaluated in the RTIF Technical Report of a horizon year of 2030.

Note that prior to receiving any RTIF Program Fee revenue a project must be identified in the SJCOG Board approved Regional Transportation Plan (RTP) and the RTIF Capital Project List.

Comment #5 Project funding through the development of a sub-regional fee program (DEIR Page 5.9-3)

All jurisdictions that may have new development subject to a sub-regional fee must be assembled to discuss the feasibility of establishing and administering such a fee program. At minimum, in addition to Caltrans and SJCOG, the jurisdictions to include involve the cities of Manteca and Ripon as well as the County of San Joaquin. We request that Manteca facilitate such a meeting as part of the response to comments. 6-5

Establishing such a fee must be conducted based on requirement under the Fee Mitigation Act (Gov. Code §§ 66000 et seq.). Some of the project information that is required under this Act include:

- Identifies the purpose (project need) to which the fee is to be put;
- Demonstrates a reasonable relationship between the fee and the purpose for which it is charged;
- Identifies all sources and amounts of funding anticipated to complete financing in incomplete improvements;

- Commits a transportation impact fee program funds to the capital project(s) and indicates that such funds are expended or reimbursed within the time periods established by the Fee Mitigation Act requirements; and,
- Identifies the fee program's capital projects to be constructed, the estimated costs of the capital projects, the costs to be funded by the sub-regional program fee revenue, and the availability or lack thereof of other funds with which to construct the Regional Transportation Network.

6-5 (cont.)

Establishing and administering a specific sub-regional fee to fund the proposed project must be in addition to the RTIF.

Comment #6 Project funding through the Regional Transportation Impact Fee (RTIF) program

To be eligible for RTIF funding, any new roadways associated with the project must meet the criteria explained in Comment #4. In addition, other than an interchange project, the project must involve a capacity improvement of one or more through travel or passing lanes, or auxiliary lanes (i.e. turn lanes).

6-6

Comment #7 RTIF used to mitigate impacts project would have on various freeway mainline segments (DEIR Page 5.9-4)

Of the RTIF assessed and collected by participating jurisdictions, 15% is forwarded to SJCOG. Of the 15%, two-thirds is eligible for highway widening projects. This amount of RTIF would contribute to, but would fall short of mitigating the full impacts this project would have on the freeway system. However, this does not prohibit a local jurisdiction to use the RTIF they control on the mainline freeway system. In order to utilize the full extent of RTIF collected, the participating local jurisdiction(s) would need to be willing to dedicate the RTIF they retain to improve the impacted freeway segments.

6-7

Comment #8 Roadway designed and built to expressway standards

McKinley Avenue is identified as an expressway in the San Joaquin Regional Expressway Study. Therefore, this roadway, as well as any other roadways associated with the project that is identified in the San Joaquin Regional Expressway Study must be designed and built to expressway standards. Full details regarding the regional expressway network and expectations can be found on line at http://www.sjcog.org/.

6-8

Comment #9 Railroad Crossings (DEIR Page 5.9-7)

The DEIR indicates that the current condition is 20 trains per day using the Union Pacific line through the project's footprint. This rate of track usage is expected to increase over time. Furthermore, this is one of the alignments being considered to support high speed rail through

6-9

Letter 6

the San Joaquin Valley up to Sacramento. The proposed project will generate significant traffic impacts at the railroad crossings. The DEIR address the railroad crossing safety issues; however, does not provide additional analysis regarding air quality impacts. Recommend additional air quality analysis of having vs. not having full grade separations at both the Austin Road and Woodward Avenue locations.

6-9 (cont.)

Comment #10 Surface Transportation Assistance Act (STAA) terminal access routes

The proposed project includes a wide variety on non-residential development that will depend on large trucks for the movement of goods. The majority of these operations will depend on STAA rated trucks to serve their needs. Therefore, the roadways supporting these non-residential operations must be designed and built to accommodate STAA rated trucks.

6-10

Comment #11 Project roadways relationship to SJCOG's Regional Transportation Plan (RTP)

The RTP must be amended to:

- Resolve the conflict between the proposed new interchange to the existing Tier I SR 99 @ Austin and Olive Road Interchanges;
- Include the proposed new SR 99/McKinley Avenue Interchange project;
- Recognize the realignment of SR 99; and,
- Include any other regionally significant capacity increasing roadway projects.

All proposed new regionally significant projects will be subject to modeling analysis in order to meet mandated air quality conformity standards.

6-11

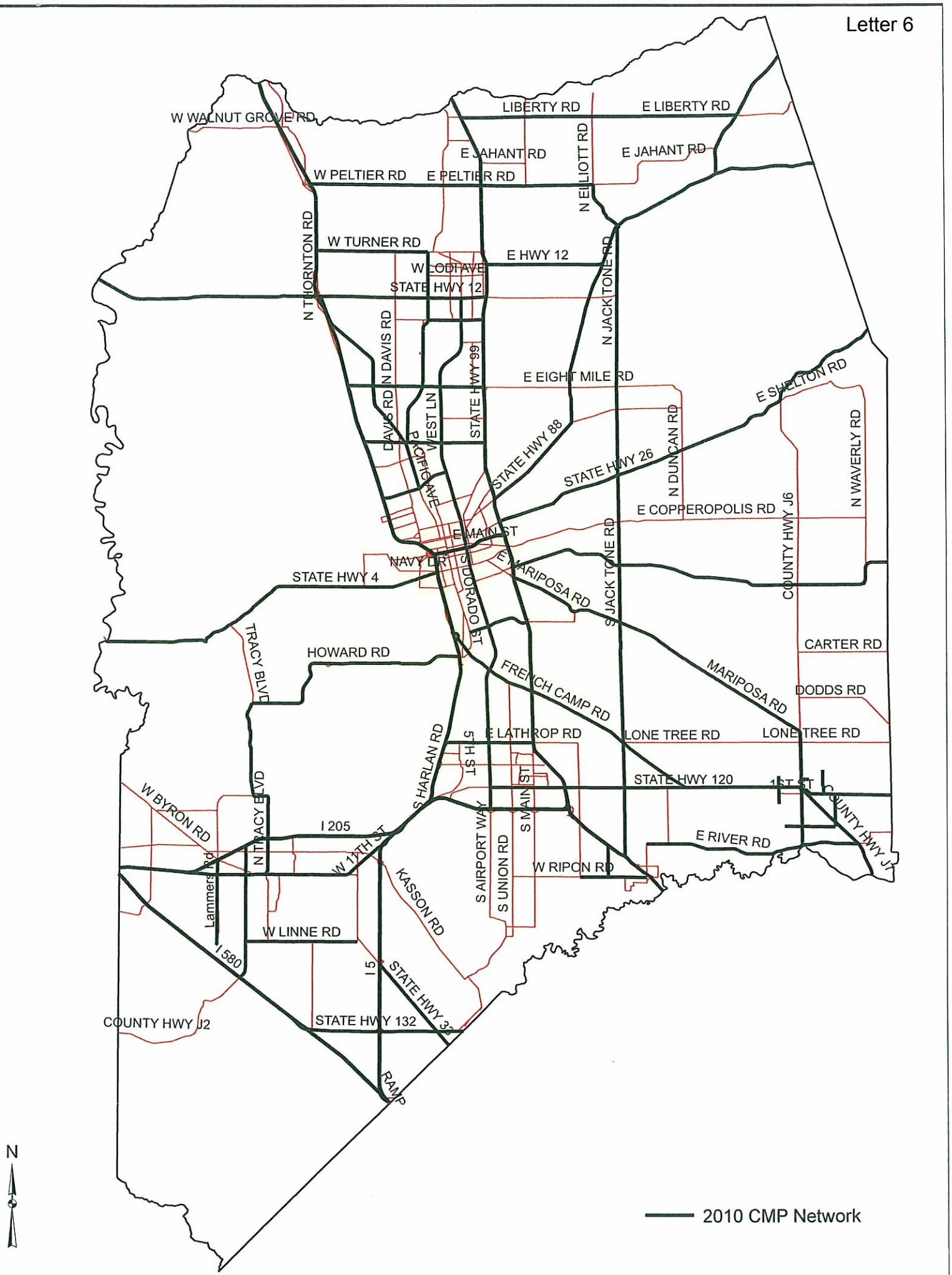
If you have any questions please call Laura Brunn, at (209) 235-0579. We would be pleased to meet with the city concerning these comments if that would be helpful.

Sincerely,

LAURA BRUNN
SJCOG Associate Regional Planner

Cc: Andrew Chesley, SJCOG Executive Director
Dana Cowell, SJCOG Deputy Director
Mike Swearingen, SJCOG Senior Regional Planner

Letter 6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2010 CMP Network

LETTER 6: San Joaquin Council of Governments

Response to Comment 6-1

The comment refers to the list of SJCOG CMP facilities in the Local Regulations section of the Draft EIR and notes that Ripon Road and Jack Tone Road are within the project's sphere. The following text is added to the list on page 5.9-10:

> The CMP determines the LOS standard for the following facilities included in this study:
>
> - SR 120 between Yosemite Ave. and SR 99 – LOS F
> - SR 99 – LOS D
> - Jack Tone Road between SR 99 and Austin Road and Ripon Road/Main Street – LOS D
> - Ripon Road/Main Street between Austin Road and SR 99 – LOS D
>
> Although the CMP standard for SR 120 is LOS F, Caltrans does not support this designation and instead uses a standard of LOS D.

Response to Comment 6-2

The comment refers to a note about Caltrans LOS standards on page 5.9-10 of the Draft EIR. This note is important to the overall context of the Draft EIR since it defines why the deficient LOS threshold was set at LOS D for the "grandfathered" segments of SR 120, which have a SJCOG CMP LOS threshold of F. Consequently, the Draft EIR analysis used the more conservative LOS D threshold and no additional analysis would be required.

Response to Comment 6-3A

This comment refers to the 2009 CEQA guidelines and requests additional analysis be performed to evaluate impacts. The comment specifically requests that the following two segments be analyzed as they relate to the CMP:

- SR 99 from Main Street in Ripon to French Camp Road
- Ripon Road between Austin Road and SR 99

The Draft EIR analyzed SR 99 between the Stanislaus County line and the Little John ramps. While the methodology for analyzing LOS differs between the SJCOG CMP and that used in the Draft EIR, the findings (identification of deficient segments and project-related impacts) would not differ. For example, Appendix B of the SJCOG CMP identifies the existing LOS on SR 99 between Main Street (Ripon) and French Camp Road to be LOS F, with the exception of a segment identified as LOS D between Jack Tone Road and SR 120 (although field observations indicate extensive AM peak period queuing related to the SR 99 to SR 120 ramp transition). The analysis performed in the Draft EIR identified these same segments as operating between LOS E and F under existing conditions. Therefore, under either analysis scenario, this entire stretch of SR 99 would be identified as not

meeting the SJCOG CMP LOS threshold (LOS D). Similar findings would also be made for the "plus project" scenarios and the cumulative scenarios.

The Draft EIR identified a potential direct-fix mitigation measure, which would widen the freeway and address the existing and future deficiencies under "plus project" conditions on SR 99. However, based on Caltrans' latest plans, additional roadway widening (beyond the current widening project between Arch Road and SR 120) is not planned and since neither the City of Manteca, nor the project applicant can widen SR 99, further widening is considered infeasible. Therefore, a system-wide deficiency plan to address the existing and future LOS deficiencies on SR 99 is appropriate. Given the regional importance of SR 99, Manteca would be willing to participate in development of a system-wide plan to address LOS deficiencies on SR 99; however, it is critical that other partners such as Caltrans, Stockton, Ripon, San Joaquin County, and SJCOG also participate in this plan.

The Draft EIR did not specifically analyze the arterial segment of Ripon Road (which transitions names to Main Street in the City of Ripon). However, the critical intersection LOS at the Ripon Road/Austin Road and Main Street/Jack Tone Road intersections were analyzed using standard HCM intersection analysis methodologies. Arterial operations are defined by how well the intersections along the arterial operate. In performing the intersection LOS analysis along Ripon Road, the Draft EIR identified project-related LOS deficiencies and project-related traffic impacts. In addition, the Draft EIR identified a direct-fix mitigation measure to either implement the McKinley Avenue/SR 99 interchange or add lanes and a traffic signal. These direct-fix measures are valid under existing plus full project buildout and cumulative plus project conditions. Given the uncertainty of when the project would begin construction and what levels of land use absorption would take place, it is unclear when these improvements would be needed. However, as part of the mitigation monitoring program, the City of Manteca will strive to work with San Joaquin County and the City of Ripon to monitor traffic conditions at the Ripon Road/Austin Road and Main Street/Jack Tone Road intersections and implement the direct-fix mitigation measures identified in the Draft EIR as soon as they are warranted. It is presumed that these measures would be implemented or funded by the project applicant, as described in the Draft EIR. The City of Manteca will coordinate with the City of Ripon and San Joaquin County to prepare a direct-fix deficiency plan that incorporates the mitigation measures identified in the Draft EIR.

Response to Comment 6-3B

The comment refers to the 2009 CEQA guidelines and seeks clarification as to whether the project would conflict with adopted policies, plans, or programs supporting alternative transportation related to the SJCOG CMP. The comment correctly notes that this Draft EIR was prepared at the master-plan level and many of the detailed land uses, regulations related to travel demand management (TDM) programs, and details related to pedestrian, transit, and bicycle travel have not yet been identified. As the project evolves and tentative maps are developed for specific sets of parcels within the project, the City of Manteca, as noted in Mitigation Measures 5.9-10 through 5.9-12 would ensure that adequate pedestrian, transit, and bicycle facilities are provided. These improvements would be consistent with the City of Manteca Standard Plans and the Bicycle Master Plan and include sidewalks, crosswalks, bike lanes, bike paths, transit shelters, and bus bays. It is anticipated

that these non-auto improvements would meet or exceed the bike and pedestrian performance standards shown on page 28 of the 2007 SJCOG CMP.

In addition, the City of Manteca would review specific development proposals within the ARBPRC site and the City may require implementation of some of the TDM strategies listed in Chapter 7 of the SJCOG CMP to avoid conflicts with SJCOG CMP policies, plans, or programs. Strategies such as increased connectivity, shared parking, preferential carpool parking, and public transit enhancements may be particularly beneficial in the mixed-use portion of the site. The City will also require participation in the Commute Connection program for the following development types, as defined in the SJCOG comment letter:

- Business and industrial parks
- Event centers
- Schools with more than 150 students
- All commercial, industrial, and retail offices with more than 50 full-time equivalent employees

The Draft EIR evaluated effects of the proposed project on the circulation system, including those related pedestrian, transit, and bicycle travel; there would be no additional physical environmental effects due to potential inconsistencies with SJCOG CMP policies, plans, or programs.

Response to Comment 6-4

The comment notes that the potential interchange at SR 99/McKinley Avenue is not eligible for Regional Transportation Impact Fee (RTIF) funding. The mitigation measures related to implementation of this new interchange in the Draft EIR do not necessarily define or assume RTIF funding. However, based on recent comments from Caltrans related to the Austin Road PSR project, Caltrans is supporting a single interchange on SR 99 between SR 120 and Jack Tone Road. Therefore, the two interchanges defined in the current SJCOG RTP (Austin Road and Olive Expressway) do not have the support of Caltrans. The City of Manteca will work with SJCOG, Caltrans, and Ripon to address this conflict and pursue the proposed McKinley Avenue/SR 99 interchange as opposed to the Austin Road/SR 99 interchange. This may ultimately involve the use of RTIF funds for implementation of this interchange improvement. Also note that, as stated in Response to Comment 4-6, although the proposed project includes assumptions for the location of the interchange, the proposed project land use plan and circulation improvements are a response to the interchange location currently being considered by Caltrans; the ARBPRC project is not proposing the location of the interchange.

Response to Comment 6-5

The comment refers to the proposed sub-regional fee program identified to fund the potential McKinley Avenue/SR 99 interchange. It is the intent of the City of Manteca to work collaboratively with Caltrans, SJCOG, the City of Ripon, and San Joaquin County to discuss the differences between the currently adopted RTP and the latest Caltrans position of supporting only one interchange along SR 99 between SR 120 and Jack Tone Road. As part of this discussion, Manteca

will discuss the feasibility of implementing a sub-regional fee to pay for interchange improvements along this portion of SR 99. Based on the outcome of the Austin Road PSR process and these discussions, the City of Manteca recognizes the ultimate configuration and design of any interchanges along SR 99 may not reflect what is depicted on the site plans.

Response to Comment 6-6

The comment describes the limitations of using the RTIF program funding for any new roadways associated with the project. The Draft EIR does not assume that any RTIF funds would be used to finance new roadways related to the project.

Response to Comment 6-7

The comment describes how the RTIF can be utilized on the freeway system. As noted in the Draft EIR, freeway impacts are to be mitigated through the project's contribution to the SJCOG RTIF. Mitigation Measures 5.9-8, 5.9-9, 5.9-24, and 5.9-25 recommend that the project contribute to the SJCOG RTIF in response to project-related and cumulative impacts on the freeway mainline and ramp areas. The Draft EIR acknowledges that these RTIF contributions will not guarantee any freeway capacity expansions or system operations improvements since Caltrans generally has no plans to widen the freeway system (beyond the widening currently underway on SR 99 between Arch Road and SR 120 and a widening of SR 120 to six lanes between I-5 and SR 99) or make any other substantial improvements. In the future, Manteca will determine how to best utilize its portion of the RTIF funding, which may involve the support of necessary freeway widening projects.

Response to Comment 6-8

This comment notes that McKinley Avenue is identified as an expressway in the San Joaquin County Regional Expressway Study. The proposed project does not include specific designs for McKinley Avenue, but as more detailed tentative maps are submitted to the City, the City of Manteca will ensure that McKinley Avenue is designed and built to expressway standards.

Response to Comment 6-9

This comment refers to the railroad crossing and recommends additional analysis to evaluate the air quality benefits of grade separation. As discussed in responses to Comment 3-2 and 4-17, since there was no impact defined at this location, a mitigation measure for grade separation is not required or proposed.

Air quality impacts of the proposed project are addressed in Section 5.3 of the Draft EIR. Because the High Speed Train would be an electrified system, there would be no local emissions associated with its operation in the project vicinity. Because the High Speed Train is intended as an express service, it is assumed that any crossing would be grade separated to allow the train to operate at design speed. Grade separated crossings would reduce congestion at crossings, thereby reducing emissions compared with signalized crossings and increase safety by reducing the potential for automobile/train accidents. The Draft EIR found that noise associated with rail operation would be

significant and unavoidable due to the use of horns for at-grade crossings. Because the High Speed Train would not involve the use of horns at grade-separated crossings, there would be no additional impact from the High Speed Train. Nonetheless, Mitigation Measure 5.6-6 (page 5.6-22 of the Draft EIR) requires notification to future residents regarding train operations and requires construction of a sound wall to reduce the effects of rail noise on the project. Implementation of this measure would ensure noise from the High Speed Train, if it is constructed, would not result in substantial noise effects on the project.

Response to Comment 6-10

This comment refers to the need to accommodate truck movements within the site. As the project develops and more detailed tentative maps are prepared, the City of Manteca would ensure that the major roadways and access roads to the non-residential portions of the project site are designed to accommodate Surface Transportation Assistance Act (STAA)-rated trucks.

Response to Comment 6-11

This comment notes that the SJCOG RTP must be updated to reflect the proposed and potential roadways and freeway improvements shown in the project site plan. As described earlier, the City of Manteca will work with SJCOG, Caltrans, San Joaquin County, and the City of Ripon to resolve the conflict between the potential McKinley Avenue interchange and the RTP Tier I interchange projects at Austin Road and Olive Expressway. It should be noted, however, that the current location for the McKinley Avenue/SR 99 interchange was dictated by Caltrans in order to meet interchange spacing requirements and Caltrans does not support the Austin Road and Olive Expressway interchanges as proposed in the RTP.

In addition, the City of Manteca will work with SJCOG and other relevant agencies to include other regionally significant capacity increasing roadway projects in the RTP for updated modeling and air quality conformity analysis.

Letter 7

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

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May 27, 2010

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COMMUNITY DEVELOPMENT DEPARTMENT

Erika Durrer, Senior Planner
City of Manteca
Community Development Department
1001 West Center Street
Manteca, CA 95337

Project: Austin Road Business Park and Residential Community

District CEQA Reference No: 20090049

Dear Mrs. Durrer:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Draft Environmental Impact Report (DEIR) for the Austin Road Business Park and Residential Community consisting of heavy industrial, commercial, office, mixed-use, residential and public/quasi-public development, located in Manteca, CA. The District offers the following comments:

1. Construction Emissions – The DEIR concludes that construction emissions will have a significant and unavoidable impact on air quality. However, feasible mitigation of construction exhaust emission includes use of construction equipment powered by engines meeting, at a minimum, Tier II emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. The District recommends incorporating, as a condition of project approval, a requirement that off-road construction equipment used on site achieve fleet average emissions equal to or less than the Tier II emissions standard of 4.8 g/hp-hr NOx. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards. 7-1

2. The District concurs that the proposed project is subject to District Rule 9510 (Indirect Source Review) 7-2

3. Table 5.3-3 indicates the construction emission reductions required by District Rule 9510 are 33.3% NOx and 50% PM10. It should be noted, District Rule 9510 requires construction emissions be mitigated by 20% NOx and 45% PM10. 7-3

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Executive Director/Air Pollution Control Officer

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www.valleyair.org www.healthyairliving.com

4. Project proponents may enter into a voluntary emissions reduction agreement (VERA) with the District to reduce project specific related impacts on air quality to a less than significant level. A VERA is an instrument by which the project proponent provides monies to the District to fund emission reduction projects that achieve the level of mitigation required by the lead agency. A VERA is implemented through the District's Strategy and Incentives Program. As part of the process, the District verifies emission reductions achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. The District also verifies that total emission reductions (generally the sum of ROG, NOx and PM10) achieved under a VERA equals the total emission reductions (sum of ROG, NOx and PM10) required by the lead agency when approving the project. It is the District's experience that implementation of a VERA is a feasible mitigation measure which effectively achieves the emission reductions required by a lead agency, including mitigation of project related impacts on air quality to a net zero level by supplying real and contemporaneous emissions reductions. 7-4

5. This project will include a variety of land uses (i.e., residential, commercial, and industrial). There are existing residential receptors near the proposed project. The potential health risk to all sensitive receptors including the existing and future (i.e., those that are part of the project) residences and to workers (at existing worksites and at worksites within the proposed project) should be determined. In addition, the risk to the proposed residential receptors inside the project from the nearby freeway and any other existing sources within the area should be determined. 7-5

6. The Draft Environmental Impact Report (DEIR) includes an analysis of the risk to future project residents from the existing freeway. However, this analysis used a screening technique and risk threshold developed by the Sacramento Metropolitan Air Quality Management District. The District has its own screening tool for risk from freeways. The District uses a threshold of 10 in a million cancer risk for all sources including freeways. Thus, the proponents conclusion that the risk from the freeway is not significant is unacceptable. 7-6

7. The DEIR concludes that the risk from diesel particulate matter (DPM) emissions associated with various individual proposed land uses within the project was potentially significant. The proponent proposed to perform individual health risk assessments (HRAs) when individual projects were begun. This approach is acceptable. However, the following should be considered when those HRAs are performed: 7-7

   a. The risk to the future residents of the project from freeway DPM emissions should be determined. (The District's screening tool can be used for this analysis.) If the risk is greater than 10 in a million cancer risk, specific mitigation measures should be adopted.

   b. DPM emissions from truck travel, idling, and transportation refrigeration units servicing the two proposed commercial developments, the High-Cube warehouse, light industrial facilities, the amphitheatre, and the EXPO should be estimated. The

risk from these emissions to proposed residents in the project and to existing residences should be determined. If any of the facilities will have diesel-fired emergency generators, they are to be permitted with the District. Their risk should be determined as part of the HRA to satisfy California Environmental Quality Act (CEQA) requirements.

c. The description of land uses for the project suggests that there will be a railroad right-of-way. If there is a rail line operating through the project, the risk from its DPM emissions should be determined on proposed residential areas in the project and on existing residents.

d. To complete the individual HRAs, the draft working modeling guidance issued by the District should be used. The proponent should ensure that the latest version of that guidance document is used and should consult the District for specific guidance whenever each HRA is performed. Current draft modeling guidance can be found at http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm .

7-7 (cont.)

8. Individual development projects may also be subject to the following District rules: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).

7-8

9. The District recommends that a copy of the District's comments be provided to the project proponent.

7-9

If you have any questions or require further information, please call Mark Montelongo at (559) 230-5905.

Sincerely,

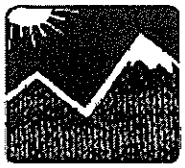
David Warner
Director of Permit Services

Mark Montelongo

for: Arnaud Marjollet
Permit Services Manager

DW:mm

Letter 7



San Joaquin Valley
Air Pollution Control District

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Fax Transmittal

1990 E. Gettysburg Avenue
Fresno, California 93726-0244
Finance Phone (559) 230-6020
Personnel Phone (559) 230-6010

Date : May 27, 2010

To : Erika Durrer **Fax Number :** (209) 923-8949

From : Diane Gaitan for Mark Montelongo **Number of pages (includes cover sheet):** 4

Description :

- ☐ Per Your Request
- ☐ Per Our Conversation
- ☐ Take Appropriate Action
- ☐ Please Answer
- ☐ For Your Information
- ☐ For Your Approval
- ☐ Review & Comment
- ☐ Review & Return
- ☐ Original transmittal will follow via mail

Remarks / Response :

LETTER 7: San Joaquin Valley Air Pollution Control District

Response to Comment 7-1

The comment states that there is feasible mitigation to reduce construction emissions through the use of off-road construction equipment that meets minimum Tier II standards. It should be noted that the majority of NO_x emissions associated with the proposed project that exceed SJVAPCD thresholds are associated with the import/export of materials to and from the project site, not off-road/on-site equipment. Further, the incorporation of this measure at this stage would, based on initial estimates, not result in dramatic reductions in on-site equipment emissions. For example, 2012 building construction emissions were estimated to be 5.68 tons. Using a 4.8 g/bhp-hr standard emission rate would result in an approximately 0.5 to 1 ton reduction in emissions, which would still result in an exceedance of SJVAPCD thresholds by the project. Nonetheless, Mitigation Measure 5.3-1 is amended as follows:

5.3-1 *The construction contractor shall implement the following measures during construction activities:*

- *Require that all diesel engines be shut off when not in use to reduce emissions from idling.*
- *Minimize the obstruction of traffic on adjacent roadways.*
- *Water the active construction area three times per day during grading activities.*
- *Use low-VOC paint during the painting of all residential and non-residential structures.*
- *Achieve fleet average emissions for off-road equipment equal to or less than EPA Tier II emissions standards of 4.8 g NO_x/bhp-hr, where feasible.*

Response to Comment 7-2

Comment noted.

Response to Comment 7-3

The comment states that District Rule 9510 requires construction emissions to be mitigated by 20 percent for NO_x and 45 percent for PM_{10}. Table 5.3-3 in the Draft EIR indicates 33.3 percent for NO_x and 50 percent for PM_{10}. Table 5.3-3 on page 5.3-18 of the Draft EIR is amended as follows:

TABLE 5.3-3

PROJECT CONSTRUCTION CRITERIA POLLUTANT EMISSIONS (MITIGATED)

Year/Emission Source	ROG (tons/year)	NOx (tons/year)	PM_{10} (tons/year)	$PM_{2.5}$ (tons/year)
Year 2010 (Phase 1)	0.90	7.46	7.21	1.77
Year 2011 (Phase 1)	6.09	48.88	2.71	2.13
Year 2012 (Phases 1 and 2)	48.04	29.44	5.12	2.12
Year 2013 (Phases 2, 3, and 4)	13.07	9.37	4.03	1.24
Year 2014 (Phases 3 and 4)	2.11	11.62	6.39	1.80
Year 2015 (Phases 3 and 4)	3.77	12.96	1.12	0.87
Year 2016 (Phases 3 and 4)	3.54	11.82	1.04	0.79
Year 2017 (Phases 3 and 4)	3.32	10.74	0.97	0.73
Year 2018 (Phases 3 and 4)	3.15	9.84	0.91	0.67
Year 2019 (Phases 3 and 4)	2.99	9.00	0.85	0.62
Year 2020 (Phase 5)	3.50	9.02	10.71	2.58
Year 2021 (Phase 5	5.11	8.93	0.86	0.62
Year 2022 (Phase 5)	5.09	8.90	0.86	0.62
Maximum Annual Emissions prior to Rule 9510 Compliance	**48.04**	**48.88**	**10.71**	**2.58**
Percent reduction from unmitigated emissions required by Rule 9510	—	20%~~33.3%~~	45%~~50%~~	—
Maximum Annual Emissions after Rule 9510 Compliance1	48.04	39.1~~32.6~~	10.71	2.58
SJVAPCD Thresholds (tons/year)	10.00	10.00	15.00	NT
Significant Impact	**Yes**	**Yes**	No	No
Percent Reduction Achieved with Mitigation and Rule 9510 Compliance	9.2%	20%	47.00%	43.30%

Notes:
1. The reduction noted is based upon the unmitigated totals, shown in Table 5.3-2. Because PM_{10} emissions would already be below the 15 tons per year threshold, an additional 45% reduction after compliance with Rule 9510 is not shown.
2. Modeling assumes construction (excavation, grading, and other construction activities) would be limited to one activity at a time.
3. Modeling assumes heavy construction equipment would be limited to 8 hours per day, 5 days per week.

Pollutant emissions are displayed in the units that allow direct comparison with the SJVAPCD significance thresholds (i.e., 10 tons/year for ROG and NOx, and 15 tons/year for PM_{10}).
Source: PBS&J, 2009. Based on URBEMIS 2007 Version 9.2.4.

These changes are clarifying in nature and do not affect the conclusions of Impact 5.3-1.

Response to Comment 7-4

The comment states that a voluntary emissions reduction agreement (VERA) with the District would reduce project emissions to less-than-significant levels. However, in general, lead agencies may not rely upon mitigation that is within the responsibility or jurisdiction of another agency and subject to the approval of that agency. Because implementation of a VERA is within the jurisdiction of the SJVAPCD and subject to SJVAPCD approval prior to execution/implementation, the VERA is not considered full mitigation for the project's criteria pollutant impacts. Because the project's emissions would exceed the threshold of significance after imposition of all feasible mitigation identified in the EIR, the construction air impacts of the project are considered significant and unavoidable. The potential for a voluntary emissions reduction agreement for each phase of the project as a feasible mitigation strategy is unable to be determined at this time, as the proposed project is in the initial stages of planning. At such time when project plans have been refined with respect to the level/type/scale of uses within each phase, the project proponent(s) will coordinate with SJVAPCD, where feasible, regarding the potential for inclusion of such a strategy.

Response to Comment 7-5

The comment states that the risks to existing and future residents and workers should be determined related to the freeway and other sources. The air quality analysis includes an analysis of known and anticipated air-quality related health risks. With regard to emissions from the freeway, as noted on page 5.3-23, "as the type and location of potential commercial/industrial uses are unknown at this time, potential health effects…may not be reduced to a less-than-significant level." Due to the fact that the proposed project is in the initial stages of planning, the use of the screening evaluation for diesel particulate matter (DPM) developed by SMAQMD was considered appropriate for purposes of this analysis. It should be noted, however, that Mitigation Measure 5.3-3 requires the project applicant(s) to coordinate with SJVAPCD during individual project design to determine potential TAC risks, including DPM. Further, Mitigation Measure 5.3-4 is clarified as follows:

> 5.3-4 *No residential structure shall be located within 250 feet of the nearest travel lane of SR 99 and/or 200 feet from centerline of the railroad. Further, any residential development located within 500 feet of SR 99 shall be subject to a site-specific evaluation of DPM. If it is determined that health risks at proposed residences within 500 feet of SR 99 exceed SJVAPCD's threshold of 10 in one million, further site-specific mitigation measures and/or additional buffer distance between SR 99 and the proposed residences shall be provided, as determined through coordination with SJVAPCD.*

This clarification is consistent with ARB guidance as provided in their *Air Quality and Land Use Handbook: A Community Health Perspective*. In addition, if future site-specific evaluations determine there is potential for significant risk from freeway DPM, the provision of additional buffers between the freeway and future residences, established in coordination with SJVAPCD, would ensure there is not a significant impact due to DPM.

Response to Comment 7-6

See Response to Comment 7-5.

Response to Comment 7-7

The comment provides recommendations regarding preparation of Health Risk Assessments for individual projects developed under the plan. As noted in Response to Comment 7-5, Mitigation Measure 5.5-4 has been modified to require coordination with SJVAPCD for preparation of the Health Risk Assessment. Mitigation Measure 5.3-4 also acknowledges the potential for risks associated with DPM generated by rail operations. The project applicant(s) will consider SJVAPCD's suggestions at such time as individual projects are brought forward.

Response to Comment 7-8

The comment regarding applicable District rules is noted. The rules mentioned by the commenter are listed under the local applicable regulations starting on page 5.3-10 of the Draft EIR.

Response to Comment 7-9

Comment noted. The project proponent has received a copy of SJVAPCD's comments as well as the written responses of the Final EIR.

NATURAL RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, GOVERNOR

DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

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May 28, 2010

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MAY 28 2010

COMMUNITY DEVELOPMENT DEPARTMENT

VIA EMAIL: EDurrer@ci.Manteca.ca.us
Ms. Erika Durrer, Senior Planner
City of Manteca
1001 W. Center Street
Manteca, CA 95337

Subject: Austin Road Business Park and Residential Community DEIR
-SCH# 2009012044

Dear Ms. Durrer:

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Austin Road Business Park and Residential Community DEIR. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the proposed project's potential impacts on agricultural land and resources. 8-1

Project Description:

The proposed Austin Business Park and Residential Community encompasses approximately 1,049 acres in San Joaquin County. The proposed project would include heavy industrial, commercial, office, mixed use, various residential uses, and public/quasi-public uses.

The project site is currently designated General Agriculture in the San Joaquin General Plan and zoned Agriculture, with the exception of an approximately 30-acre parcel located adjacent to Highway 99 that is designated Limited Industrial and which houses a modern office, warehouse, and industrial uses.

The project site is within the ten year planning horizon of the adopted City of Manteca Sphere of Influence. The City of Manteca General Plan designates the Sphere of Influence area as Low Density Residential, Medium Density Residential, High Density Residential, General Commercial, Heavy industrial, and Park.

Surrounding land uses to the north, west, and south include active agricultural uses which consist of agricultural support buildings, scattered ranch homes, and a nursery. To the northwest is a residential subdivision. To the east are active agricultural uses, scattered ranch homes, and State Route 99.

The majority of the project site is under active agricultural use. The greater part of the site (1,013 acres) is classified Farmland of Statewide Importance, eight acres are classified as

Farmland of Local Importance, and eight acres are classified as Prime Farmland. The site also includes approximately 183 acres currently under Williamson Act contracts. 8-1 (cont.)

Division Comments:

Lands currently under Williamson Act contract restrictions remain subject to the contract restrictions unless the contract is cancelled or the non-renewal period is completed. In addition, the zoning of lands under contract should not be changed to a zoning classification that is incompatible with the contract restrictions. 8-2

Section 5.2-Agricultural Resources of the DEIR identified and analyzed the existing conditions, potential impacts, and mitigation measures associated with agricultural resources for the Austin Road Business Park and Residential Community.

The DEIR concluded that implementation of the proposed project would result in significant and unavoidable impacts, and that no feasible mitigation existed that would reduce the impacts to below a level of significance. However, Section 5.2 also went into detail about the City of Manteca's Mitigation Fee Program, which authorizes the collection of development impact fees to offset costs associated with the loss of productive agricultural lands converted for urban uses. Despite the existence of this Mitigation Program, mitigation to partially offset impacts to the area was listed as "none" in the DEIR. 8-3

The Division understands that mitigation may not reduce impacts below a significant level, but feasible mitigation is available to partially reduce impacts either through working with the City of Manteca's existing Mitigation Fee Program or through the other options listed below.

Mitigation Measures

Although direct conversion of agricultural land is often deemed an unavoidable impact in California Environmental Quality Act (CEQA) analyses, mitigation measures must be considered. The loss of agricultural land from the implementation of this project represents a permanent reduction in the State's agricultural land resources. As such, the Department recommends a requirement for purchasing permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the direct loss of agricultural land resulting from the Austin Road Business Park and Residential Community project. The City of Manteca's Mitigation Fee Program could be used to collect the fees to fund such easements. 8-4

If growth inducing or cumulative agricultural impacts are involved, the Department recommends that this ratio of conservation easements to lost agricultural land be increased. Mitigation for the loss of Prime Farmland is suggested at a 2:1 ratio due to its importance to the State of California.

Conservation easements will protect a portion of those remaining land resources and lessen project impacts in accordance with California Environmental Quality Act (CEQA) Guideline §15370. The Department highlights this measure because of its acceptance and use by lead

agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that of wildlife habitat mitigation.

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. This should be a condition for implementation of the project. The proposed conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands can be conducted regionally or statewide, and need not be limited to lands within the project's surrounding area.

8-4 (cont.)

The Department also has available a listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the address or phone number at the conclusion of this letter. Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

8-5

Thank you for giving us the opportunity to comment on the Austin Road Business Park and Residential Community DEIR. Please provide this Department with the date of any hearings for this particular action, and any staff reports pertaining to it. If you have questions regarding our comments, or require technical assistance or information on agricultural land conservation, please contact Meri Meraz, Environmental Planner, at 801 K Street, MS 18-01, Sacramento, California 95814, or by phone at (916) 445-9411.

Sincerely,

DJO

Dan Otis
Program Manager
Williamson Act Program

cc: Ms. Rochelle Henson, Senior Planner rhenson@ci.manteca.ca.us

State Clearinghouse

San Joaquin County Farm Bureau
PO Box 8444
Stockton, CA 95208-0444
FAX (209) 931-1433

Durrer, Erika

From: Meraz, Meridith [Meridith.Meraz@conservation.ca.gov]
Sent: Friday, May 28, 2010 12:24 PM
To: Durrer, Erika
Cc: Henson, Rochelle
Subject: Austin Road Business Park and Residential Community
Attachments: Austin Road Business Park & Res Community_2009012044_San Joaquin_Final Ltr.pdf

Dear Ms. Durrer:

Attached is the Department of Conservation, Division of Land Resource Protection's comments and recommendations with respect to potential impacts on agricultural land and resources. If you have any problems opening up the attached letter, please call me at the number listed below.

Sincerely,

Meri Meraz
Environmental Planner
Williamson Act Program
California Department of Conservation
Division of Land Resource Protection
801 K Street, MS 18-01
Sacramento, CA 95814-3528
(916) 445-9411
Meridith.Meraz@Conservation.ca.gov

Please consider the environment before printing this email

LETTER 8: Natural Resources Agency, Department of Conservation, Division of Land Resource Protection

Response to Comment 8-1

The comment describes the Department of Conservation's responsibilities and summarizes the proposed project. No response is required.

Response to Comment 8-2

The comment states that Williamson Act contract restrictions should remain in place until a contract expires or is cancelled. As stated on page 5.2-2 of the Draft EIR, the project proposes that the areas currently under Williamson Act contract remain in agricultural use until the contracts expire, after which those areas could be developed with residential uses. Therefore, while the project would change the general plan designations and zoning on the site, there would be no development that would occur prior to expiration of the contracts and there would be no conflict with the contracts.

Response to Comment 8-3

The comment states that there were no mitigation measures in the Draft EIR to partially offset impacts on agricultural resources, despite there being a detailed discussion in the Draft EIR about the City's Agricultural Mitigation Fee Program. However, the Agricultural Mitigation Fee Program is not voluntary: the agricultural mitigation fee is to be collected by the city before the issuance of building permits, or at approval of any discretionary permit if no building permit is required (Manteca Municipal Code Section 13.42.040). Consequently, as payment of the fee is required by code, no mitigation requiring the payment of the fee is required. As noted in the comment, even with payment of the fee, which would be used by the City to purchase conservation easements on existing agricultural land, the impact would remain significant and unavoidable.

Response to Comment 8-4

The comment reiterates that the project should be required to contribute toward the purchase of agricultural conservation easements. As discussed in Response to Comment 8-3, the proposed project would be required to pay the City's Agricultural Mitigation Fee for the purchase of conservation easements on existing agricultural land. Regarding the potential for cumulative or induced growth resulting in further loss of agricultural land, the extent or location of cumulative or any potential induced growth is not known at this time. Without quantification of future growth, appropriate mitigation cannot be imposed. Nonetheless, as future growth occurs, whether related to the proposed project or not, the City would require payment consistent with the requirements of the Agricultural Mitigation Fee Program for projects within its jurisdiction.

Response to Comment 8-5

The comment refers to 28 conservation tools that have been used by some jurisdictions to conserve or mitigate impacts on agricultural land, including:

- Purchase of Agricultural Conservation Easements (PACE)
- Transfer of Development Credits (TDC)
- Lease, Lease-Purchase
- Exclusive Agricultural Zoning
- Fee Simple Acquisition
- Mitigation Banking
- Project-Specific Development Agreements
- City-County Agreements
- City-County Revenue Sharing
- Right-to-Farm Laws
- General Plan-Agricultural Element
- Sphere of Influence/Annexation Policies
- Urban Limit lines
- Greenbelts
- Buffers
- Density Bonuses
- Urban In-fill Strategies
- New Towns
- Cluster Development
- Land Evaluation and Site Assessment (LESA) Models
- A State Version of the Federal Farmland Protection Policy Act
- The Williamson Act Land Exchange Program
- Tax Increment Funding of Land Conservation
- SB 1280, The California Land and Water Conservation Act of 1996
- Installment-Purchase Open Space Financing
- Federal Tax Incentives
- Estate Taxation Reform
- Agricultural Enterprise Zones/Agricultural Redevelopment and Agricultural Enhancement Boards

As discussed on pages 5.2-8 and 5.2-9 of the Draft EIR, the City has adopted a Right-to-Farm Ordinance and a Resource Conservation Element of its General Plan. However, while the list includes many potential methods for reducing the potential loss of agricultural land, several are beyond the reach of a single jurisdiction to implement, such as adopting a State version of the Federal Farmland Protection Policy Act, or altering state of federal tax laws. Others are targeted more toward counties than cities, as cities generally incorporate land to allow for development to take place as opposed to retaining agricultural zoning and agricultural activities, which are often perceived as a conflict with urban uses. Though other strategies can be used to reduce the loss of agricultural land, such as maintaining agricultural zoning or greenbelts, the project site is within an area that the City has identified in its General Plan as an area for development.

Given the scale of the project, an infill project (or projects) with the uses proposed could not be accommodated in the City and would not be feasible. As discussed in the Land Use and Agricultural Resources section of the Draft EIR, the existing City of Manteca General Plan designations for the site are similar in land use type and intensity as the proposed project, with alterations in the site configuration. As proposed, the project would result in a relatively dense development with commercial, office, and industrial uses along with a variety of residential uses with an overall density of more than 8.1 residential units per acre. Thus, while density bonuses may reduce the amount of land converted, the increased density may limit marketability of the product that is not necessarily consistent with the existing type of development in the City of Manteca.

As discussed in the Agricultural Resources section of the Draft EIR and the response above, the project would be required to contribute to the Agricultural Mitigation Fee Program to reduce the effect of the project on the regional and statewide loss of agricultural land. Nonetheless, even with conservation easements in place, the Draft EIR found that the loss of agricultural land on the project site would remain significant.

Letter 9

Ripon Consolidated Fire District

142 S. Stockton Ave. Ripon, CA 95366
Phone 209-599-4209 FAX 209-599-2847

June 1, 2010

Rochelle Henson, Senior Planner
City of Manteca
1001 W. Center Street
Manteca, CA 95337

Re: Austin Road Business Park and Residential Community

The Ripon Consolidated Fire Protection District (RCFPD) is in receipt of the Draft Environmental Report for the above named project and respectfully submits the following comments for the record.

On page 5.7-2 , ***Fire Protection***, the DEIR states that the project site is currently served by the Lathrop Manteca Fire Protection District (LMFPD). This statement is grossly inaccurate. Actually, approximately 80% of the proposed project currently lies within the jurisdictional boundaries of the RCFPD, and has been served as such for well over 50 years. LMFPD's closest station (Sta 3-2) to the project area is located 4.75 miles away at Union and Almondwood Rds., while RCFPD's closest station (Station 2-1) is 2.5 miles away in Ripon. 9-1

While loss of tax revenues may not present negative changes in the environment, it does pose a significant impact if the RCFPD is going to be called upon to provide service to the area after annexation to the City of Manteca. The City of Manteca relies upon mutual aid from neighboring Districts to provide services now, which is currently the case with LMFPD Station 3-2, which was found to provide approximately 40% of its total call volume into the City of Manteca in recent reports by the LMFPD. 9-2

Although the District does not have an exact amount of the loss of revenues resulting from the annexation of this area by the City of Manteca, the following are the sources of revenues that would be affected: 9-3

Property Tax Revenue
RCFPD Special Assessment Tax
Fire Facilities Fees from new construction

The RCFPD currently provides fire suppression and Advanced Life Support (ALS) services within its boundaries. In addition to paramedic-staffed engines, the RCFPD also provides ALS transport ambulance service operating within an Exclusive Operating Area (EOA) granted by the San Joaquin County Emergency Medical Services Agency (SJCEMSA) which encompasses this project. The City of Manteca is currently served by the Manteca District Ambulance Service, which is a private ambulance service operating within it's own EOA granted by SJCEMSA. According the SJCEMSA, any change in the boundaries of either of these two EOA's constitutes a change in operations and would result in the requirement for both zones to be subject to public bid by any other interested providers. This will have serious implications for both providers for their entire EOA's, not just in this project area.

9-3 (cont.)

If the project area were to be detached from the RCFPD for fire services, yet remain in the RCFPD EOA for ambulance service, it would create a situation where the RCFPD has to provide the service without the tax revenue needed to ensure an adequate level of service.

The Ripon Consolidated Fire Protection District has serious concerns with the ramifications that could result if this project is approved as proposed. The ability for this project to negatively affect the delivery of fire and emergency ambulance service to the citizens of Ripon is unacceptable; as it would be to Manteca if it were so threatened.

The RCFPD herby requests formal notification of any public hearings that may be scheduled with respect to the proposed project, and looks forward to receiving any and all responses to the comments posed by us. Thank you for the opportunity to comment.

9-4

Sincerely,

Dennis Bitters
Fire Chief

Cc: RCFPD Board of Directors
Fred Manding, Fire Chief, LMFPD
Dana Soloman, CEO, Manteca District Ambulance
Dan Burch, EMS Administrator, San Joaquin County EMS Agency

LETTER 9: Ripon Consolidated Fire District

Response to Comment 9-1

The comment provides clarification to text included in the Draft EIR. The correction to the text on page 5.7-2 of the Draft EIR is shown in Response to Comment 4-7.

Response to Comment 9-2

The comment states that loss of tax revenues would result in a significant impact if the RCFPD is going to be called on the provide service to the project area. As discussed in the Draft EIR (page 5.7-2) and in Response to Comment 4-11, the provision of fire protection service by the Manteca Fire Department and detachment from the existing fire service provider, whether that is the Lathrop-Manteca Fire Protection District or Ripon Consolidated Fire District, was assumed in the Draft EIR (see page 5.7-2). It is not known at this time if a mutual aid agreement with the Ripon Consolidated Fire District would be pursued for provision of fire protection services to the project site, but the Ripon Consolidated Fire District would be able to negotiate terms of such an agreement such that there would be no negative physical effects on the District. It should also be noted that the City's 2008 Municipal Service Review assumes that the proposed project would occur within the 10-year horizon of the MSR and would be served by the Manteca Fire Department.[1]

Response to Comment 9-3

The comment provides additional information regarding District revenues. As discussed previously, potential changes in tax revenue do not represent negative physical changes in the environment and, therefore, were not addressed in the Draft EIR. As discussed in the Draft EIR, the project site would be served by the Manteca Fire Department, which would provide service to the site that meets City standards.

Response to Comment 9-4

The comment requests notification of any future public meetings on the project. The District has been included on a list for future notifications.

1 City of Manteca, *Manteca Municipal Services Review*, June 16, 2008, p. 26.

Letter 10

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048 STOCKTON, CA 95201
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LUTHER KING JR. BLVD. 95205)
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July 27, 2010

10-SJ-99-PM 4.9
SCH#2009012044
DEIR
Austin Road Business Park & Residential Community Project

Erika Durrer
City of Manteca.
Community Development Department
1001 West Center Street
Manteca, CA 95337

Dear Ms Durrer:

Thank you for your letter to the California Department of Transportation, District 10 Planning, requesting us to review the Draft Environmental Impact Report (DEIR) for the proposed Austin Road Business Park and Residential Community Project (ARBPRC). The project site is currently designated General Agriculture (A/G) in the San Joaquin County General Plan, with the exception of an approximately 30-acre parcel located adjacent to Highway 99 that is designated Limited Industrial I/L). San Joaquin County zoning for most parcels on the project site is Agriculture 40-acre minimum parcel area (AG-40), with the exception of the aforementioned approximately 30-acre, which is zoned Industrial (I-W).

The Manteca General Plan designates the project site as Low Density Residential (LDR), Medium Density Residential (MDR), High Density Residential (HDR), General Commercial (GC), Heavy Industrial (HI), and Park (P). Because the project site is not within Manteca city limits, the City of Manteca has not established zoning districts for the project site.

The project is located within San Joaquin County adjacent to the southeast limits of the City of Manteca and is located within the ten-year planning horizon of the adopted City of Manteca sphere of influence. The area is generally bounded by the East Woodward

Avenue to the north, Highway 99 to the east, and is bisected by the existing Austin Road, which runs north /south.

The Department has the following comments:

Traffic Operations:

Austin Road Business Park and Residential Community (ARBPRC) Transportation and Circulation Review dated April 2010

1. Appendix D, Existing with project traffic, (E+P) does not provide Synchro output to verify the Peak hour volumes on figure 5.9-6A (E+P) for intersections 1, 2, 10, 12 and 13. Appendix D does however provide the Simtraffic Level of Service (LOS) spreadsheet but we need the Synchro/Simtraffic output results to verify the spreadsheet data. 10-1

2. The provided Transportation and Circulation report is missing the queuing and blocking analyses in the body as well as in the Appendices. These analyses are required to verify at which locations turn lanes will need improvement, as traffic volume increased under the E+P condition, and future conditions. For example, Page 5.9-51 Mitigation Measure 5.9-2 indicates *Main Street/Eastbound State Route (SR) 120 Ramps intersection to lengthen the eastbound right turn lane to 600 feet and the northbound right turn to 500 feet.* Without the queuing and blocking analysis the Department cannot concur with the proposed mitigation because the analysis needs to verify the proper storage for queue length + deceleration length. Similarly, at the Austin Road interchange, all turn lanes should have standard storage and deceleration lengths. Therefore, please provide Tables to show (intersection/movements locations, available storage, 95th Percent Queue in AM/PM peak hour) in the report and output results in the appendices for E+P and all future conditions for SR-99/Austin Road and SR-120/Main Street interchanges. 10-2

3. Page 5.9-41 lists the following proposed developments that could generate project trips up to 919 PM peak hour threshold (10.5 percent of the total project trip 8,717 PM peak hour trip generation). 10-3

   - 8.35 million square feet of high cube warehouse use; or
   - 4.106 million square feet of mixed industrial development...
   - 910 single family homes; or
   - 246,000 square feet of retail; or
   - Some combination of industrial, office, retail and residential development that

does not generate more that 919 PM peak hour trips.

No building permits shall be approved at a point where ARBPRC project generates beyond PM peak hour trips. However, the 919 PM peak hour trip threshold needs to be adjusted to Passenger Car Equivalent (PCE) to account for the larger impact per vehicle which will result from the truck traffic generated by the ARBPRC project. 10-3 (cont.)

From the above list, high cube warehouse, mixed industrial, and retail shopping will generate Surface Transportation Assistance Act (STAA) trucks. These STAA trucks will most likely utilize the Main Street and Austin Road/Moffat Blvd ramp intersections to access to and from SR-99 and SR-120. However, the existing SR-99/Austin Road/Moffat Blvd and SR-120/Main Street interchanges were not designed to accommodate STAA trucks. We recommend these interchanges will need to be improved to accommodate STAA trucks. 10-4

In addition, the Synchro analysis was based on 2% to 7% of heavy vehicles. These percentages seem too low for the proposed ARBPRC project. The Synchro analysis needs to be redone to account for a larger heavy vehicle percentage. 10-5

Draft Environmental Impact Report Austin Road Business Park and Residential Community (ARBPRC) review dated April 2010. State Clearinghouse # 2009012044

Summary of Impact and Mitigation Measures, Table 3-1, Section 5.9 Transportation and Circulation:

4. Section 5.9-1 (b) and 5.9-2 – Provide Synchro/Simtraffic output results and Queuing & Blocking analysis to verify proposed mitigation. 10-6

5. Section 5.9-9 impact states. **"The proposed project would cause an increase in traffic which would degrade or exacerbate unacceptable operations at freeway merge, diverge, and weaving areas near the project."** Mitigation Measure says, *"The project applicants shall pay the San Joaquin County Regional Transportation Impact Fee as building permits are approved."* We do not concur with this mitigation strategy because the Project's traffic results in direct impact by ARBPC. 10-7

6. The project's traffic volume under **Project Only Condition** at intersection 10, 12, and 13 are significantly high. For example, SR-99/Austin Road off-ramp (1,103 AM & 932 PM); SR-99/Austin Road on ramp (484 AM & 1,780 PM). These volumes would significantly degrade traffic operations at the intersections, ramp junctions, (merge/diverge) and weaving areas. Therefore, analysis of Merge, Diverge, and 10-8

Weaving are required to be performed for Existing Condition, E+P Condition, and all other future scenarios to determine the impacts and mitigations. Traffic Operations recommends that the development of the Project Study Report (PSR) for ultimate relocation of Austin Road interchange begin as soon as possible to address the Project's traffic impact. 10-8 (cont.)

7. Section 5.9-15 states that the project will pay a fair-share fee for the Main Street/SR 120 interchange improvement. However the SR-120/Main Street interchange reconstruction project is not programmed in the near future. Therefore a Ramp/Merge and Diverge analyses is required to be performed to determine the Project's Near-term impact and any necessary mitigations. 10-9

8. An Encroachment Permit will be required for work (if any) done within the Department's right of way. This work is subject to the California Environmental Quality Act (CEQA). Therefore, environmental studies may be required as part of the encroachment permits application. A qualified professional must conduct any such studies undertaken to satisfy the Department's environmental review responsibilities. Ground disturbing activities to the site prior to completion and/or approval of required environmental documents may affect the Department's ability to issue a permit for the project. Furthermore, if engineering plans or drawings will be part of your permit application, they should be prepared in standard issue. 10-10

In summary, the DEIR and the supporting Traffic Impact Study (TIS) have substantial errors and omissions in the transportation analysis:

- The project generates significant traffic volume increases at the ramps at SR-99/Austin road, and SR-120/Main Street, which would degrade the operations at the intersections, and ramp junctions; however, the DEIR/TIS does not perform ramp junction (merge/diverge) analysis to determine if there are any potential significant impacts. The traffic volumes at these ramp junctions are substantially increased by the project traffic which will create potential significant impacts which are not disclosed or addressed. 10-11

Please refer to the DEIR Appendix G, Letter from Fehr & Peers to the City of Manteca, Tesoro Apartments Traffic Impact Study, dated April 15, 2008. This letter outlines that a TIA shall include a ramp analysis where a project increases traffic to a ramp equal to at least 1%. However this proposed development increases traffic to the SR-99/Austin Road ramps, and the SR-120/Main Street interchange ramps which far exceed this criterion, but the DEIR chooses to ignore ramp analyses and any potential significant impacts. 10-12

- The project traffic affects the weaving movements between the SR-120 connector and the Austin Road ramps. The DEIR/TIS neglects to address the development's impact to weaving movements and any potential significant impacts or mitigations. 10-13

- The project involves heavy industrial development. Yet the traffic analysis assumed truck volumes ranging only 2%-7%. The traffic analysis needs to account for a more reasonable percentage of heavy vehicles based on the proposed developments land use. 10-14

- The DEIR/TIS ignores STAA truck access from the SR-99/Austin Road ramps, and the SR-120/Main Street interchange. Neither of these facilities is designed to accommodate STAA trucks. Potentially STAA trucks using these facilities would create potential impacts due to safety issues related to off-tracking. 10-15

- The DEIR/TIS proposes the project pay fair-share to a SR-120/Main Street interchange improvement project to mitigate impacts. However a SR-120/Main Street interchange improvement project is neither programmed, nor foreseeable in the near future. 10-16

- The DEIR/TIS document circulated omits necessary information to verify the analysis. 10-17

The Department is recommending the aforementioned issues be addressed and resolved prior to the approval of the Environmental Impact Report.

The DEIR needs to correct its supporting traffic impact study, and re-evaluate the development's traffic impacts. Once the DEIR corrects the traffic impact analysis, and re-evaluates this section, the affected agencies and the public should be given the opportunity to review and comment on the DEIR's revised transportation impacts and mitigations.

If you have any questions or would like to discuss our comments in more detail, please contact Kathy Selsor at (209) 948-7190 (e-mail: kathy_selsor@dot.ca.gov) or me at (209) 941-1921.

Sincerely,

Kathy Selsor for

TOM DUMAS, CHIEF
OFFICE OF METROPOLITAN PLANNING

c: SMorgan State Clearinghouse

bc: TDumas IGR
MHonma Traf Ops
ASahibzada Traf Ops
PRobledo Forecasting
NMagsayo Permits
VNguyen

STATE OF CALIFORNIA
FACSIMILE COVER
10-2A-0049 (NEW 10/92)

ATTENTION:	FROM:	
Erika Durrer	**Kathy Selsor** **Department of Transportation** **1976 East Charter Way** **Stockton, CA 95205**	
UNIT/COMPANY: City of Manteca Public Works Department	DATE: 7/22/10	TOTAL PAGES (Including Cover Page)
	FAX # (Include Area Code) (209) 948-7164	ATSS FAX 8-423-7164
DISTRICT/CITY 1001 West Center Street Manteca, CA 95337	PHONE # (& Area Code) (209) 948-7190	ATSS 8-423-7190
PHONE # (& Area Code) (209) 456-8522 FAX # (& Area Code) (209) 239-8495	ORIGINAL DISPOSITION: Destroy ☐ Return ☐ Call for Pickup ☐	

Comments:

SJ-99-PM 4.9
SCH#2009012044 (DEIR)
Austin Road Business Park and Residential Community Project

LETTER 10: California Department of Transportation, Office of Metropolitan Planning

Response to Comment 10-1

This comment notes that Appendix D does not provide Synchro output data to verify the Existing Plus Project peak hour traffic volumes shown on Figure 5.9-6A for intersections 1, 2, 10, 12, and 13. The City of Manteca submitted all the relevant Synchro and SimTraffic digital files to Caltrans for review and verification on the week of July 5, 2010; the Existing Plus Project Synchro volume report is also included as Appendix A of this Final EIR.

Response to Comment 10-2

This comment refers to the lack of 95th percentile queue information for the Existing Plus Project, Cumulative No Project, and Cumulative Plus Project conditions for the SR 99/Austin Road and SR 120/Main Street interchanges. Typically, queuing information is not included in an EIR analysis since the detailed design of mitigation measures to accommodate queuing is not addressed in the EIR. The relevant SimTraffic queuing data are attached (Appendix A) for the unmitigated versions of the Existing Plus Project, Cumulative No Project, and Cumulative Plus Project conditions at the Main Street/SR 120 and Austin Road/SR 99 ramp terminal intersections. These results confirm the ramp diverge and intersection ramp terminal LOS impacts described in the Draft EIR. Queuing information is not provided for the mitigated conditions since the final interchange design has not been defined through the PSR process; however, it is assumed that the design will accommodate the expected queues under Plus Project conditions. Note also that Caltrans and the City of Manteca have a long history of working together to construct interchange improvements that address queuing issues at ramp terminal intersections.

Response to Comment 10-3

This comment refers to the 919 PM peak hour trip threshold that will lead to a failure of the interim mitigation measures proposed at the SR99/Austin Road interchange. The 919 trip threshold was developed using a SimTraffic model of the SR 99/Austin Road interchange that employed an assumption that the site would be developed with 5 million square feet of uses, 85 percent of which would be industrial in nature. The impact analysis that identified the 919 PM peak hour trip threshold assuming that the industrial trip generation would be comprised of 20 percent heavy vehicles (which was based on observations at the nearby Spreckels Industrial Park). Since the introduction of office, retail, or residential uses would reduce the heavy vehicle percentage, it is not necessary to convert this threshold to passenger car equivalents (PCEs) as recommended in the comment letter.

Response to Comment 10-4

This comment refers to STAA truck trip generation that is likely to occur with the development of industrial uses in the ARBPRC. The comment letter incorrectly states that the SR 120/Main Street interchange cannot accommodate STAA trucks. The City of Manteca has studied this issue and has determined that the shoulders are designed to accommodate STAA trucks for vehicles heading north of the interchange. Given that the interchange is similar for both northbound and southbound travel,

it is likely that the interchange could also accommodate southbound STAA trucks with little or no improvements. However, as the ARBPRC project moves forward, the City and project applicants are committed to determining the suitability of the SR 120/Main Street interchange for southbound STAA trucks. A letter from Caltrans confirming the feasibility of northbound STAA truck movements is attached (see Appendix A).

The City of Manteca acknowledges that the SR 99/Austin Road/Moffat Boulevard interchange may not be designed to accommodate all STAA truck movements without some degree of off-tracking under existing conditions. However, under existing conditions, a substantial number of STAA trucks use this interchange to access the existing industrial uses in the southern portion of the City and adjacent unincorporated county lands. Given that the ARBPRC would likely increase STAA truck traffic at this interchange in the future, the City of Manteca and the project applicant are committed to widening shoulders and making other STAA improvements as part of the interim SR 99/Austin Road/Moffat Boulevard enhancements described in Mitigation Measure 5.9-1. These details will be determined through the interim improvement design phase, which will be prepared through the Caltrans Encroachment Permit process.

In addition, the City of Manteca is currently working with Caltrans and SJCOG on a PSR for a replacement Austin Road interchange (located to the south of the existing interchange) that will be designed to current standards and will fully accommodate STAA truck movements.

Response to Comment 10-5

This comment notes that the two to seven percent heavy vehicle percentage assumed in the analysis "seems too low for the proposed ARBPRC project." Fehr & Peers prepared a detailed truck trip generation and trip distribution analysis for the proposed project including collection of heavy vehicle percentages at the nearby Spreckels Industrial Park. Although the industrial component of the project could yield a heavy vehicle mix of up to 20 percent, the remaining office, retail, and residential uses (which comprise the vast majority of the project's trip generation) would have much lower heavy vehicle compositions.

Based on the assumptions above, a review of the ARBPRC project trip generation table presented on page 5.9-29 of the Draft EIR indicates that the total overall project trip generation is 83,029 trips, with 16,748 trips generated by industrial uses. Assuming that the industrial uses have a 20 percent heavy vehicle trip generation rate, this would indicate that about 3,350 daily truck trips would be generated. This, combined with the two percent truck trip generation for the remainder of the project, leads to a total dally truck trip generation rate of about 4,675 heavy vehicles. This number represents about 5.5 percent of total daily trip generation for the project. Given that Fehr & Peers assumed a slightly different trip distribution pattern for heavy vehicles (which was more focused on access to freeway routes), the overall two to seven percent heavy vehicle percentage assumed in the Draft EIR is reasonable and there is no need to update the Synchro/SimTraffic analysis.

The reasonableness of the heavy vehicle percentages is further confirmed by 2009 vehicle classification counts in the Manteca area. Heavy vehicles represent 4 percent of traffic on Airport Way and Lathrop Road. These roads serve both nearby industrial uses and commute trips.

Response to Comment 10-6

This comment requests Synchro and SimTraffic files and a summary of the queuing and blocking analysis. At the time this response was prepared, the City of Manteca had already submitted the appropriate digital Synchro/SimTraffic files to Caltrans. As noted in Response to Comment 10-2 the queuing calculations are included in Appendix A.

Response to Comment 10-7

This comment notes that Caltrans does not concur with Mitigation Measure 5.9-9 because the project would result in direct impacts. The Draft EIR acknowledges the project's impacts, identifying impacts on ramp merge, diverge, and weaving areas on SR 120 and SR 99 near the project site. Regarding mitigation strategy, for projects where neither the lead agency nor the project applicant have control over implementing improvements on another agency's facilities, the use of impact fee payments is a common means to mitigate project-related impacts. The payment of San Joaquin County Regional Transportation Impact Fees (RTIF) is reasonable because the RTIF program already includes funding for the following improvements that would improve operations in the project vicinity:

- Project ID 1 – Widen SR 99 from six to eight lanes between Yosemite Avenue and Main Street in Ripon
- Project ID 20 – Widen SR 120 from four to six lanes between I-5 and SR 99
- Project ID 38 – Reconstruct and Improve the SR 99/Austin Road interchange

Based on the most recent RTIF unit costs for new land development, buildout of the proposed ARBPRC project would generate over $18.5 million in fees for the projects listed above. This amount is in addition to the Manteca PFIP fee payment (which includes funds for interchange improvements), additional near-term improvements to the SR 120/Main Street interchange (see mitigation measure 5.9-2), and the costs to implement the interim interchange improvements at SR 99/Austin Road. The level of project-related investments to address impacts on the state highway system represents a fair and reasonable mitigation measure.

Response to Comment 10-8

This comment notes that ramp merge, diverge, and weaving analysis was not performed for the SR 99/Austin Road interchange. Page 5.9-18 of the Draft EIR describes the rationale for not performing detailed ramp merge, diverge, and weaving analysis at this location. In summary, these detailed ramp junction calculations were not performed because, based on the definitions in the

Highway Capacity Manual (HCM), deficient operations on the mainline translates (by default) into deficient operations in ramp merge, diverge, and weaving areas.[2]

Table 5.9-5 of the Draft EIR identifies that the segment of SR 99 between Jack Tone Road and SR 120 (including the Austin Road interchange ramp junction areas) operates at LOS E or F conditions based on daily traffic volumes.[3] Deficient operations on this segment are corroborated by the Caltrans 2008 HICOMP report, which identifies over two hours of recurring AM peak period congestion from just south of Austin Road to French Camp Road. Since no ramp junction improvements were assumed as part of the project, the additional traffic generated by the proposed project would exacerbate poor mainline and ramp junction operations near the SR 99/Austin Road interchange.

Based on the discussion above, the mainline operations deficiencies identified under Existing plus Project and Cumulative plus Project conditions translates into ramp junction deficiencies at the SR 99/Austin Road interchange and any additional analysis would be redundant. The analysis approach in the Draft EIR is consistent with Section 15003 of the CEQA Guidelines, which specifies, "CEQA does not require technical perfection in an EIR, but rather adequacy, completeness, and a good-faith effort at full disclosure."

However, to confirm the findings in the Draft EIR and address the concern raised by the Caltrans comment, Fehr & Peers performed a limited number of ramp junction analyses at the SR 99/Austin Road interchange under Existing plus Project conditions.[4] The ramp junction analyses were based on the AM and PM peak hour mainline traffic volume forecasts shown in the *Evans Estates-Pillsbury Estates DEIR* (ICF Jones & Stokes, April 2009) and the AM and PM peak hour ramp volumes from the ARBPRC Draft EIR. The results are summarized below and the detailed calculations are attached in Appendix A.

- AM peak hour northbound SR 99 off-ramp to Austin Road: Density 38.3 pc/hr/ln, **LOS E**
- AM peak hour northbound SR 99 weaving area from Austin Road: Liesch Service Volume 1,865, **LOS E**
- PM peak hour southbound SR 99 off-ramp to Austin Road: Density 38.2 pc/hr/ln, **LOS E**
- PM peak hour southbound SR 99 on-ramp from Austin Road: Density 45.7 pc/hr/ln, **LOS F**

These results confirm the finding in the Draft EIR that the project would lead to ramp junction traffic impacts under Existing Plus Project conditions. If ramp junction analyses were conducted for Cumulative Plus Project conditions, they would result in similar findings. These calculations demonstrate that the methodology used in the Draft EIR is sufficient at identifying project-related

2 See pages 25-2 and 25-4 of the HCM for details about ramp junction LOS calculation methodologies.

3 Note that the daily volume/LOS thresholds used in the Draft EIR are the same as those used in the Stockton General Plan EIR analysis. These thresholds are based on a translation of HCM peak hour density calculations and relate daily traffic to estimated AM/PM peak hour operating conditions.

4 AM peak hour off-ramp diverge and weaving analyses was performed for the northbound ramps and PM peak hour off-ramp diverge and on-ramp merge analyses for the southbound ramps.

impacts to the SR 99/Austin Road interchange and the more detailed ramp junction analysis is unnecessary.

As part of this comment, Caltrans also recommended that the City of Manteca participate in the development of a PSR for the replacement Austin Road interchange, which is an identified mitigation measure for the ramp junction and ramp terminal intersection impacts caused by the project. The City of Manteca has been participating with Caltrans since 2008 on the SR 99/Austin Road PSR, as noted on page 5.9-39 of the Draft EIR.

Response to Comment 10-9

This comment refers to concerns about the mitigation measure identified for Cumulative Plus Project impacts at the SR 120/Main Street interchange. The fair-share mitigation measure identified for impacts to this interchange is a common technique for mitigating cumulative project impacts. The fact that the SR 120/Main Street interchange is not programmed for funding in the near future is not relevant given the type of impact (i.e., cumulative) and proposed mitigation measure. This project is listed as a Tier II RTP project and is identified as a project in the Measure K Renewal funding program.

Related to the uncertainty of full project funding and lack of Caltrans approval, the Draft EIR noted that impacts to this interchange are significant and unavoidable. However, it should be noted that the City of Manteca is working with Caltrans to construct or upgrade the following interchanges on SR 120: McKinley Avenue, Airport Way, and Union Road. Given the similarity of the Main Street interchange, it is reasonable to assume that the City will also engage Caltrans in the PSR/PR process for the Main Street interchange over the timeframe of the cumulative conditions analysis.

Caltrans also requests that ramp merge/diverge analysis be performed to identify any near-term impacts and mitigation measures. This comment refers to near-term impacts and mitigation measures, which were defined for this location on Draft EIR pages 5.9-51 and 5.9-56. As discussed in Response to Comment 10-8, the near-term impacts and mitigations at this interchange were adequately addressed in the Draft EIR and additional ramp junction analysis is unnecessary.

Response to Comment 10-10

This comment refers to the Caltrans Encroachment Permit process and notes that additional environmental studies may be required. Any improvements requiring an Encroachment Permit would occur on Caltrans right-of-way; therefore, Caltrans would act as the lead agency under CEQA and would be responsible for the environmental documentation. The City of Manteca has a long history of working with Caltrans on Encroachment Permits and will continue to work with the department on necessary studies and documentation for projects that occur within Caltrans right-of-way.

Response to Comment 10-11

This is a summary comment noting the lack of ramp junction analysis at the SR 99/Austin Road and SR 120/Main Street interchanges. See Responses to Comments 10-8 and 10-9 for a discussion of

why these analyses are not necessary. This comment incorrectly states that the Draft EIR failed to disclose or address project impacts at these interchanges. See Response to Comment 10-7 regarding the adequacy of the mitigation strategy in the Draft EIR.

Response to Comment 10-12

This comment refers to the City's Draft Traffic Impact Analysis Guidelines, which call for ramp junction analysis under certain conditions. See Responses to Comments 10-8, 10-9, and 10-11 regarding ramp junction analysis.

Response to Comment 10-13

This comment refers to the lack of weaving analysis on northbound SR 99 between Austin Road and SR 120. See Response to Comment 10-8.

Response to Comment 10-14

This comment refers to the heavy vehicle percentages assumed in the transportation analysis. See Response to Comment 10-5.

Response to Comment 10-15

This comment refers to STAA truck movements. See Response to Comment 10-4.

Response to Comment 10-16

This comment refers to the proposed cumulative conditions mitigation measure for the Main Street/SR 120 interchange. See Response to Comment 10-9.

Response to Comment 10-17

This comment refers to the missing information required for verification of the transportation analysis. See Responses to Comments 10-1 and 10-6.

APPENDICES

APPENDIX A

Transportation Modeling Outputs and Support Data

Existing Plus Project AM Peak Hour

Synchro Volume Inputs

AM Peak hr

Lanes, Volumes, Timings
1: SR 120 WB Ramp & Main Street

8/9/2010

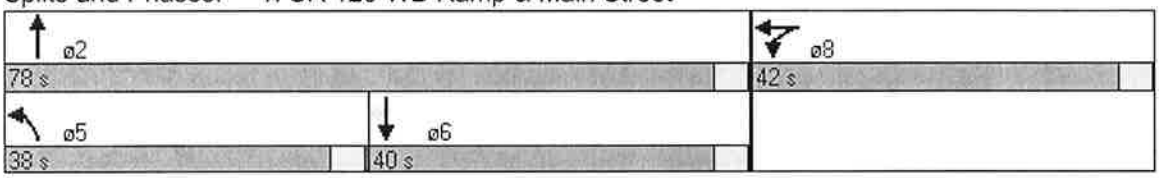
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0	0	150	275		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50	50	50	50			50	50
Trailing Detector (ft)				0	0	0	0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						0.98
Frt						0.850						0.850
Flt Protected					0.950		0.950					
Satd. Flow (prot)	0	0	0	0	1736	1524	1736	1792	0	0	1792	1524
Flt Permitted					0.950		0.950					
Satd. Flow (perm)	0	0	0	0	1736	1492	1736	1792	0	0	1792	1488
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						358						284
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1800			1915			1409			843	
Travel Time (s)		35.1			37.3			27.4			16.4	
Volume (vph)	0	0	0	30	0	340	340	410	0	0	350	270
Confl. Peds. (#/hr)			2			2			2			2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	4%	2%	6%	4%	6%	2%	2%	6%	6%
Adj. Flow (vph)	0	0	0	32	0	358	358	432	0	0	368	284
Lane Group Flow (vph)	0	0	0	0	32	358	358	432	0	0	368	284
Turn Type				Split		Free	Prot					Perm
Protected Phases				8	8		5	2			6	
Permitted Phases						Free						6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	4.0
Minimum Split (s)				42.0	42.0		10.0	42.0			39.0	39.0
Total Split (s)	0.0	0.0	0.0	42.0	42.0	0.0	38.0	78.0	0.0	0.0	40.0	40.0
Total Split (%)	0.0%	0.0%	0.0%	35.0%	35.0%	0.0%	31.7%	65.0%	0.0%	0.0%	33.3%	33.3%
Maximum Green (s)				38.0	38.0		34.0	74.0			36.0	36.0
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	0.5
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode				None	None		None	Min			Min	Min
Walk Time (s)								5.0			5.0	5.0
Flash Dont Walk (s)								15.0			30.0	30.0
Pedestrian Calls (#/hr)								2			2	2

Intersection Summary

Area Type: Other
Cycle Length: 120

Actuated Cycle Length: 47.3
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: SR 120 WB Ramp & Main Street



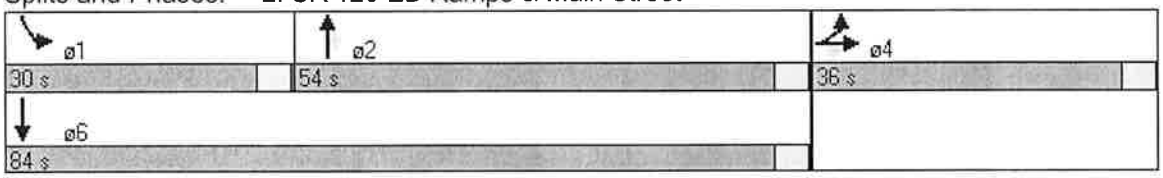
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	0		0	0		30	250		0
Storage Lanes	0		1	0		0	0		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50					50	50	50	50	
Trailing Detector (ft)	0	0	0					0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.98						0.97			
Frt			0.850						0.850			
Flt Protected		0.950								0.950		
Satd. Flow (prot)	0	1703	1553	0	0	0	0	1827	1553	1703	1827	0
Flt Permitted		0.950								0.950		
Satd. Flow (perm)	0	1703	1516	0	0	0	0	1827	1512	1703	1827	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			126						9			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1820			1825			640			1409	
Travel Time (s)		35.5			35.6			12.5			27.4	
Volume (vph)	250	0	120	0	0	0	0	500	40	190	190	0
Confl. Peds. (#/hr)			2			2			2			2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	2%	4%	2%	2%	2%	2%	4%	4%	6%	4%	2%
Adj. Flow (vph)	263	0	126	0	0	0	0	526	42	200	200	0
Lane Group Flow (vph)	0	263	126	0	0	0	0	526	42	200	200	0
Turn Type	Split		Perm						Perm	Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2	1	6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0					23.0	23.0	10.0	23.0	
Total Split (s)	36.0	36.0	36.0	0.0	0.0	0.0	0.0	54.0	54.0	30.0	84.0	0.0
Total Split (%)	30.0%	30.0%	30.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%	25.0%	70.0%	0.0%
Maximum Green (s)	32.0	32.0	32.0					50.0	50.0	26.0	80.0	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5	0.5	0.5	0.5	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Min	Min	None	Min	
Walk Time (s)								5.0	5.0		5.0	
Flash Dont Walk (s)								14.0	14.0		14.0	
Pedestrian Calls (#/hr)								2	2		2	

Intersection Summary

Area Type: Other
Cycle Length: 120

Actuated Cycle Length: 68.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR 120 EB Ramps & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	0		0	0		0	0		200
Storage Lanes	1		1	0		0	0		0	0		1
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected	0.950							0.998				
Satd. Flow (prot)	1770	0	1583	0	0	0	0	1859	0	0	1863	1583
Flt Permitted	0.950							0.998				
Satd. Flow (perm)	1770	0	1583	0	0	0	0	1859	0	0	1863	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1852			1640			1423			640	
Travel Time (s)		42.1			37.3			27.7			12.5	
Volume (vph)	20	0	10	0	0	0	20	520	0	0	230	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	0	11	0	0	0	21	547	0	0	242	84
Lane Group Flow (vph)	21	0	11	0	0	0	0	568	0	0	242	84
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		Y	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.945	
Flt Protected					0.971	
Satd. Flow (prot)	0	1810	1810	0	1660	0
Flt Permitted					0.971	
Satd. Flow (perm)	0	1810	1810	0	1660	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35	35		45	
Link Distance (ft)		1109	280		1994	
Travel Time (s)		21.6	5.5		30.2	
Volume (vph)	0	400	620	0	690	480
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	5%	5%	2%	5%	5%
Adj. Flow (vph)	0	421	653	0	726	505
Lane Group Flow (vph)	0	421	653	0	1231	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		75	0		0	0		75
Storage Lanes	0		0	0		1	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.970	
Flt Protected					0.950			0.960				
Satd. Flow (prot)	0	0	0	0	1719	1538	0	1746	0	0	1755	0
Flt Permitted					0.950			0.960				
Satd. Flow (perm)	0	0	0	0	1719	1538	0	1746	0	0	1755	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		813			5048			920			2705	
Travel Time (s)		12.3			76.5			17.9			61.5	
Volume (vph)	0	0	0	1060	0	50	670	140	0	0	280	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	5%	2%	5%	5%	2%	2%	2%	5%	5%
Adj. Flow (vph)	0	0	0	1116	0	53	705	147	0	0	295	84
Lane Group Flow (vph)	0	0	0	0	1116	53	0	852	0	0	379	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑	↱		↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		30	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898			0.955				0.850		0.970	
Flt Protected		0.995			0.984			0.985			0.998	
Satd. Flow (prot)	0	1652	0	0	1750	0	0	1835	1583	0	1789	0
Flt Permitted		0.995			0.984			0.985			0.998	
Satd. Flow (perm)	0	1652	0	0	1750	0	0	1835	1583	0	1789	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			45			35			30	
Link Distance (ft)		280			3753			1000			920	
Travel Time (s)		5.5			56.9			19.5			20.9	
Volume (vph)	110	160	820	10	10	10	310	690	480	50	990	300
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	5%	2%	2%	2%	2%	2%	2%	2%	5%	2%	5%
Adj. Flow (vph)	116	168	863	11	11	11	326	726	505	53	1042	316
Lane Group Flow (vph)	0	1147	0	0	33	0	0	1052	505	0	1411	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

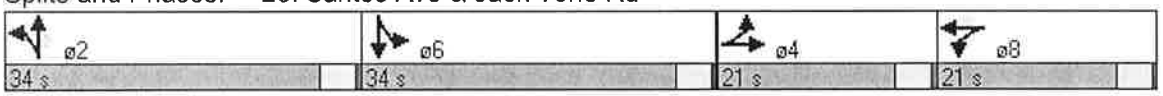
Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		75
Storage Lanes	0		0	1		0	0		0	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50	50	50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.893				0.850			0.850		0.986	
Flt Protected		0.993		0.950			0.950				0.998	
Satd. Flow (prot)	0	3138	0	1770	1863	1583	1770	1863	1583	0	3483	0
Flt Permitted		0.993		0.950			0.950				0.998	
Satd. Flow (perm)	0	3138	0	1770	1863	1583	1770	1863	1583	0	3483	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		105				53			32		9	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1123			1021			891			1604	
Travel Time (s)		25.5			23.2			20.3			36.5	
Volume (vph)	20	20	100	50	60	50	80	140	30	20	380	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	21	105	53	63	53	84	147	32	21	400	42
Lane Group Flow (vph)	0	147	0	53	63	53	84	147	32	0	463	0
Turn Type	Split			Split		Perm	Split		Perm	Split		
Protected Phases	4	4		8	8		2	2		6	6	
Permitted Phases						8			2			
Detector Phases	4	4		8	8	8	2	2	2	6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Total Split (s)	21.0	21.0	0.0	21.0	21.0	21.0	34.0	34.0	34.0	34.0	34.0	0.0
Total Split (%)	19.1%	19.1%	0.0%	19.1%	19.1%	19.1%	30.9%	30.9%	30.9%	30.9%	30.9%	0.0%
Maximum Green (s)	17.0	17.0		17.0	17.0	17.0	30.0	30.0	30.0	30.0	30.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None	None	Max	Max	Max	None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	2	2		2	2	2	2	2	2	2	2	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 75
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Santos Ave & Jack Tone Rd

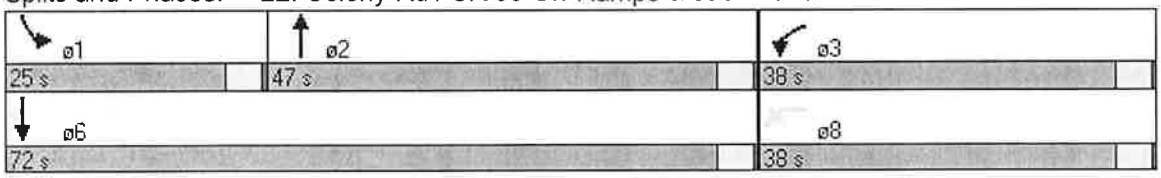


Lane Group	WBL2	WBL	WBR	NBT	NBR	SBL	SBT	SBR	SBR2
Lane Configurations									
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175	0		0	150		0	
Storage Lanes		1	0		0	1		0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50		50	50		50
Trailing Detector (ft)	0	0	0	0		0	0		0
Turning Speed (mph)	15	15	9		9	15		25	25
Lane Util. Factor	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frt			0.850	0.905			0.909		0.850
Flt Protected	0.950	0.950				0.950			
Satd. Flow (prot)	1770	1681	1583	3203	0	1770	3217	0	1583
Flt Permitted	0.950	0.950				0.950			
Satd. Flow (perm)	1770	1681	1583	3203	0	1770	3217	0	1583
Right Turn on Red			Yes		Yes				Yes
Satd. Flow (RTOR)			74	326					137
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)				30			30		
Link Distance (ft)				837			891		
Travel Time (s)				19.0			20.3		
Volume (vph)	90	150	70	180	310	20	150	230	130
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	95	158	74	189	326	21	158	242	137
Lane Group Flow (vph)	95	158	74	515	0	21	400	0	137
Turn Type	Prot	custom	Free			Prot			Perm
Protected Phases	3			2		1	6		
Permitted Phases		8	Free						6
Detector Phases	3	8		2		1	6		6
Minimum Initial (s)	4.0	4.0		4.0		4.0	4.0		4.0
Minimum Split (s)	10.0	20.0		20.0		10.0	20.0		20.0
Total Split (s)	38.0	38.0	0.0	47.0	0.0	25.0	72.0	0.0	72.0
Total Split (%)	34.5%	34.5%	0.0%	42.7%	0.0%	22.7%	65.5%	0.0%	65.5%
Maximum Green (s)	34.0	34.0		43.0		21.0	68.0		68.0
Yellow Time (s)	3.5	3.5		3.5		3.5	3.5		3.5
All-Red Time (s)	0.5	0.5		0.5		0.5	0.5		0.5
Lead/Lag				Lag		Lead			
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	None		Max		None	Max		Max
Walk Time (s)		5.0		5.0			5.0		5.0
Flash Dont Walk (s)		11.0		11.0			11.0		11.0
Pedestrian Calls (#/hr)		2		2			2		2

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 94.3
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Colony Rd / SR 99 On-Ramps & Jack Tone Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		75	175		0	225		0	125		0
Storage Lanes	1		1	1		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.981			0.975				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3472	0	1770	1816	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3472	0	1770	1816	0	1770	1863	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1012			1425			582			670	
Travel Time (s)		23.0			32.4			13.2			15.2	
Volume (vph)	10	120	200	90	140	20	160	100	20	10	10	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	126	211	95	147	21	168	105	21	11	11	11
Lane Group Flow (vph)	11	126	211	95	168	0	168	126	0	11	11	11
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

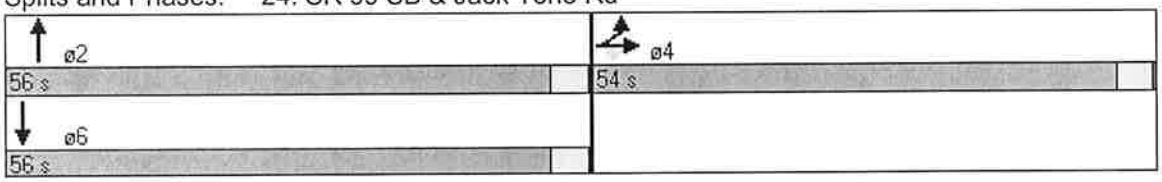
Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		425	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.949				
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1681	1681	1583	0	0	0	0	3359	0	0	3539	0
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1681	1681	1583	0	0	0	0	3359	0	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179					114				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1379			1253			1301			837	
Travel Time (s)		31.3			28.5			29.6			19.0	
Volume (vph)	200	0	170	0	0	0	0	290	150	0	240	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	211	0	179	0	0	0	0	305	158	0	253	0
Lane Group Flow (vph)	106	105	179	0	0	0	0	463	0	0	253	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			6	
Permitted Phases			4									
Detector Phases	4	4	4					2			6	
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0			20.0	
Total Split (s)	54.0	54.0	54.0	0.0	0.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	49.1%	49.1%	49.1%	0.0%	0.0%	0.0%	0.0%	50.9%	0.0%	0.0%	50.9%	0.0%
Maximum Green (s)	50.0	50.0	50.0					52.0			52.0	
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Recall Mode	None	None	None					Max			Max	
Walk Time (s)	5.0	5.0	5.0					5.0			5.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0			11.0	
Pedestrian Calls (#/hr)	2	2	2					2			2	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 73.9
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: SR 99 SB & Jack Tone Rd



Existing Plus Project PM Peak Hour

Synchro Volume Inputs

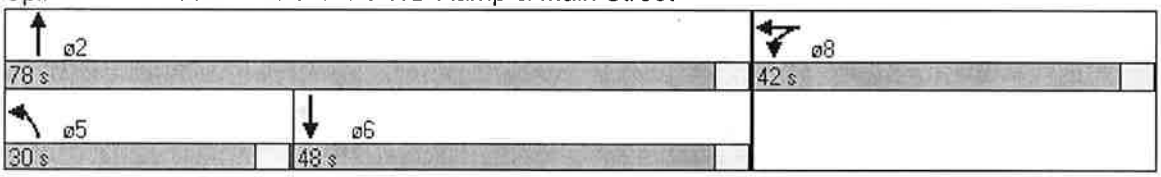
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	275		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50	50	50	50			50	50
Trailing Detector (ft)				0	0	0	0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						0.98						0.98
Frt						0.850						0.850
Flt Protected					0.950		0.950					
Satd. Flow (prot)	0	0	0	0	1770	1583	1770	1863	0	0	1863	1583
Flt Permitted					0.950		0.950					
Satd. Flow (perm)	0	0	0	0	1770	1550	1770	1863	0	0	1863	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						263						386
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1800			1915			1409			839	
Travel Time (s)		35.1			37.3			27.4			16.3	
Volume (vph)	0	0	0	40	0	250	340	820	0	0	580	430
Confl. Peds. (#/hr)			2			2			2			2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	42	0	263	358	863	0	0	611	453
Lane Group Flow (vph)	0	0	0	0	42	263	358	863	0	0	611	453
Turn Type				Split		Free	Prot					Perm
Protected Phases				8	8		5	2			6	
Permitted Phases						Free						6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	4.0
Minimum Split (s)				42.0	42.0		10.0	42.0			39.0	39.0
Total Split (s)	0.0	0.0	0.0	42.0	42.0	0.0	30.0	78.0	0.0	0.0	48.0	48.0
Total Split (%)	0.0%	0.0%	0.0%	35.0%	35.0%	0.0%	25.0%	65.0%	0.0%	0.0%	40.0%	40.0%
Maximum Green (s)				38.0	38.0		26.0	74.0			44.0	44.0
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	0.5
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode				None	None		None	Min			Min	Min
Walk Time (s)								5.0			5.0	5.0
Flash Dont Walk (s)								15.0			30.0	30.0
Pedestrian Calls (#/hr)								2			2	2

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 68.1

Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: SR 120 WB Ramp & Main Street



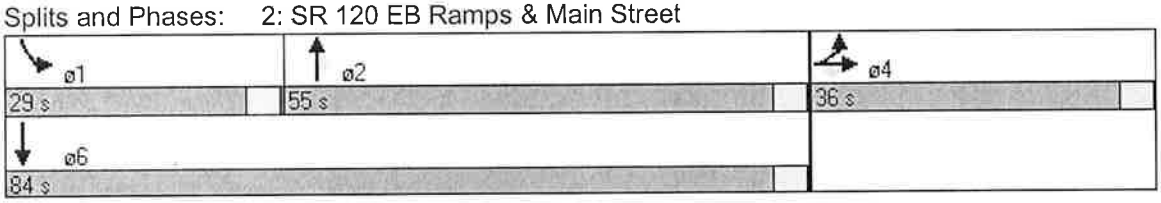
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	0		0	0		30	250		0
Storage Lanes	0		1	0		0	0		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50					50	50	50	50	
Trailing Detector (ft)	0	0	0					0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.98						0.97			
Frt			0.850						0.850			
Flt Protected		0.950								0.950		
Satd. Flow (prot)	0	1770	1583	0	0	0	0	1863	1583	1770	1863	0
Flt Permitted		0.950								0.950		
Satd. Flow (perm)	0	1770	1546	0	0	0	0	1863	1542	1770	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			471						16			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1820			1825			640			1409	
Travel Time (s)		35.5			35.6			12.5			27.4	
Volume (vph)	430	0	450	0	0	0	0	730	100	330	290	0
Confl. Peds. (#/hr)			2			2			2			2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	453	0	474	0	0	0	0	768	105	347	305	0
Lane Group Flow (vph)	0	453	474	0	0	0	0	768	105	347	305	0
Turn Type	Split		Perm						Perm	Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2	1	6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0					23.0	23.0	10.0	23.0	
Total Split (s)	36.0	36.0	36.0	0.0	0.0	0.0	0.0	55.0	55.0	29.0	84.0	0.0
Total Split (%)	30.0%	30.0%	30.0%	0.0%	0.0%	0.0%	0.0%	45.8%	45.8%	24.2%	70.0%	0.0%
Maximum Green (s)	32.0	32.0	32.0					51.0	51.0	25.0	80.0	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5	0.5	0.5	0.5	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Min	Min	None	Min	
Walk Time (s)								5.0	5.0		5.0	
Flash Dont Walk (s)								14.0	14.0		14.0	
Pedestrian Calls (#/hr)								2	2		2	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 116.5

Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR 120 EB Ramps & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	0		0	0		0	0		200
Storage Lanes	1		1	0		0	0		0	0		1
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected	0.950							0.999				
Satd. Flow (prot)	1770	0	1583	0	0	0	0	1861	0	0	1863	1583
Flt Permitted	0.950							0.999				
Satd. Flow (perm)	1770	0	1583	0	0	0	0	1861	0	0	1863	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1852			1640			1416			640	
Travel Time (s)		42.1			37.3			27.6			12.5	
Volume (vph)	100	0	40	0	0	0	20	730	0	0	650	90
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	0	42	0	0	0	21	768	0	0	684	95
Lane Group Flow (vph)	105	0	42	0	0	0	0	789	0	0	684	95
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		⋔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.956	
Flt Protected					0.967	
Satd. Flow (prot)	0	1863	1863	0	1722	0
Flt Permitted					0.967	
Satd. Flow (perm)	0	1863	1863	0	1722	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35	35		45	
Link Distance (ft)		1195	280		2259	
Travel Time (s)		23.3	5.5		34.2	
Volume (vph)	0	1100	510	0	690	330
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1158	537	0	726	347
Lane Group Flow (vph)	0	1158	537	0	1073	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		75	0		0	0		75
Storage Lanes	0		0	0		1	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.985	
Flt Protected					0.950			0.967				
Satd. Flow (prot)	0	0	0	0	1770	1583	0	1801	0	0	1835	0
Flt Permitted					0.950			0.967				
Satd. Flow (perm)	0	0	0	0	1770	1583	0	1801	0	0	1835	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		813			4203			920			3072	
Travel Time (s)		12.3			63.7			17.9			69.8	
Volume (vph)	0	0	0	1150	0	60	900	400	0	0	320	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	1211	0	63	947	421	0	0	337	42
Lane Group Flow (vph)	0	0	0	0	1211	63	0	1368	0	0	379	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↰	↱		↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		30	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.955				0.850		0.972	
Flt Protected		0.996			0.984			0.993			0.998	
Satd. Flow (prot)	0	1711	0	0	1750	0	0	1850	1583	0	1807	0
Flt Permitted		0.996			0.984			0.993			0.998	
Satd. Flow (perm)	0	1711	0	0	1750	0	0	1850	1583	0	1807	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			35			35			30	
Link Distance (ft)		280			3753			1170			920	
Travel Time (s)		5.5			73.1			22.8			20.9	
Volume (vph)	140	620	1030	10	10	10	200	1150	1460	70	1100	300
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	147	653	1084	11	11	11	211	1211	1537	74	1158	316
Lane Group Flow (vph)	0	1884	0	0	33	0	0	1422	1537	0	1548	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

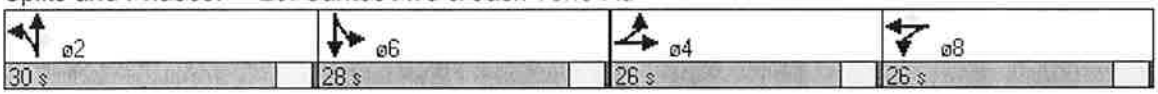
Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		75
Storage Lanes	0		0	1		0	0		0	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50	50	50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.906				0.850			0.850		0.987	
Flt Protected		0.988		0.950			0.950				0.997	
Satd. Flow (prot)	0	3168	0	1770	1863	1583	1770	1863	1583	0	3483	0
Flt Permitted		0.988		0.950			0.950				0.997	
Satd. Flow (perm)	0	3168	0	1770	1863	1583	1770	1863	1583	0	3483	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		105				63			32		8	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1123			1021			891			1555	
Travel Time (s)		25.5			23.2			20.3			35.3	
Volume (vph)	40	20	100	50	40	60	100	220	30	20	310	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	21	105	53	42	63	105	232	32	21	326	32
Lane Group Flow (vph)	0	168	0	53	42	63	105	232	32	0	379	0
Turn Type	Split			Split		Perm	Split		Perm	Split		
Protected Phases	4	4		8	8		2	2		6	6	
Permitted Phases						8			2			
Detector Phases	4	4		8	8	8	2	2	2	6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Total Split (s)	26.0	26.0	0.0	26.0	26.0	26.0	30.0	30.0	30.0	28.0	28.0	0.0
Total Split (%)	23.6%	23.6%	0.0%	23.6%	23.6%	23.6%	27.3%	27.3%	27.3%	25.5%	25.5%	0.0%
Maximum Green (s)	22.0	22.0		22.0	22.0	22.0	26.0	26.0	26.0	24.0	24.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None	None	Max	Max	Max	None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	2	2		2	2	2	2	2	2	2	2	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 69.1
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Santos Ave & Jack Tone Rd

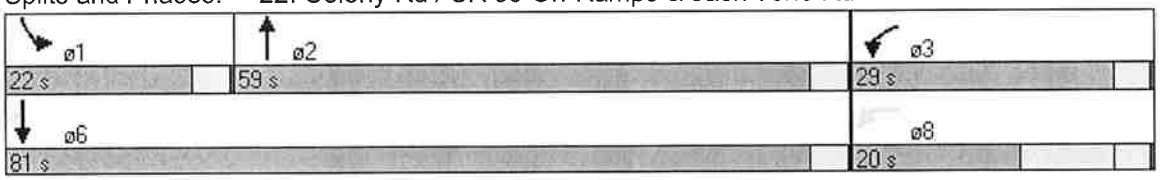


Lane Group	WBL2	WBL	WBR	NBT	NBR	SBL	SBT	SBR	SBR2
Lane Configurations									
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175	0		0	150		0	
Storage Lanes		1	0		0	1		0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50		50	50		50
Trailing Detector (ft)	0	0	0	0		0	0		0
Turning Speed (mph)	15	15	9		9	15		25	25
Lane Util. Factor	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frt			0.850	0.912			0.909		0.850
Flt Protected	0.950	0.950				0.950			
Satd. Flow (prot)	1770	1681	1583	3228	0	1770	3217	0	1583
Flt Permitted	0.950	0.950				0.950			
Satd. Flow (perm)	1770	1681	1583	3228	0	1770	3217	0	1583
Right Turn on Red			Yes		Yes				Yes
Satd. Flow (RTOR)			95	389					95
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)				30			30		
Link Distance (ft)				837			891		
Travel Time (s)				19.0			20.3		
Volume (vph)	120	140	90	260	370	40	130	200	90
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	126	147	95	274	389	42	137	211	95
Lane Group Flow (vph)	126	147	95	663	0	42	348	0	95
Turn Type	Prot	custom	Free			Prot			Perm
Protected Phases	3			2		1	6		
Permitted Phases		8	Free						6
Detector Phases	3	8		2		1	6		6
Minimum Initial (s)	4.0	4.0		4.0		4.0	4.0		4.0
Minimum Split (s)	10.0	20.0		20.0		10.0	20.0		20.0
Total Split (s)	29.0	20.0	0.0	59.0	0.0	22.0	81.0	0.0	81.0
Total Split (%)	26.4%	18.2%	0.0%	53.6%	0.0%	20.0%	73.6%	0.0%	73.6%
Maximum Green (s)	25.0	16.0		55.0		18.0	77.0		77.0
Yellow Time (s)	3.5	3.5		3.5		3.5	3.5		3.5
All-Red Time (s)	0.5	0.5		0.5		0.5	0.5		0.5
Lead/Lag				Lag		Lead			
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	None		Max		None	Max		Max
Walk Time (s)		5.0		5.0			5.0		5.0
Flash Dont Walk (s)		11.0		11.0			11.0		11.0
Pedestrian Calls (#/hr)		2		2			2		2

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 101.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Colony Rd / SR 99 On-Ramps & Jack Tone Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		75	175		0	225		0	125		0
Storage Lanes	1		1	1		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.983			0.940				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3479	0	1770	1751	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3479	0	1770	1751	0	1770	1863	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1012			1425			582			670	
Travel Time (s)		23.0			32.4			13.2			15.2	
Volume (vph)	10	250	150	50	160	20	170	60	40	30	10	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	263	158	53	168	21	179	63	42	32	11	21
Lane Group Flow (vph)	11	263	158	53	189	0	179	105	0	32	11	21
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

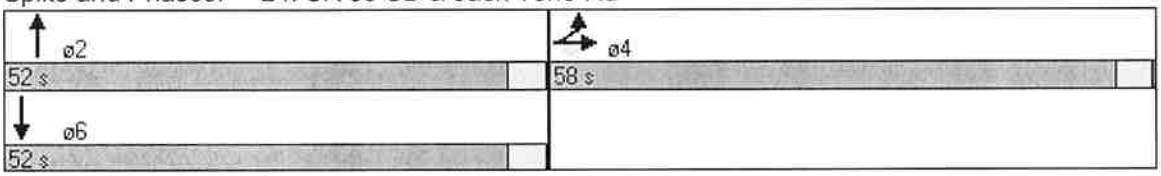
Area Type: Other
Control Type: Unsignalized

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		425	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.937				
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1681	1681	1583	0	0	0	0	3316	0	0	3539	0
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1681	1681	1583	0	0	0	0	3316	0	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			242					213				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1379			1253			1545			837	
Travel Time (s)		31.3			28.5			35.1			19.0	
Volume (vph)	300	0	230	0	0	0	0	330	240	0	250	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	0	242	0	0	0	0	347	253	0	263	0
Lane Group Flow (vph)	158	158	242	0	0	0	0	600	0	0	263	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			6	
Permitted Phases			4									
Detector Phases	4	4	4					2			6	
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0			20.0	
Total Split (s)	58.0	58.0	58.0	0.0	0.0	0.0	0.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	52.7%	52.7%	52.7%	0.0%	0.0%	0.0%	0.0%	47.3%	0.0%	0.0%	47.3%	0.0%
Maximum Green (s)	54.0	54.0	54.0					48.0			48.0	
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Recall Mode	None	None	None					Max			Max	
Walk Time (s)	5.0	5.0	5.0					5.0			5.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0			11.0	
Pedestrian Calls (#/hr)	2	2	2					2			2	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 69.2
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: SR 99 SB & Jack Tone Rd



Existing Plus Project Phase 1 Mitigation AM Peak Hour

Synchro Volume Inputs

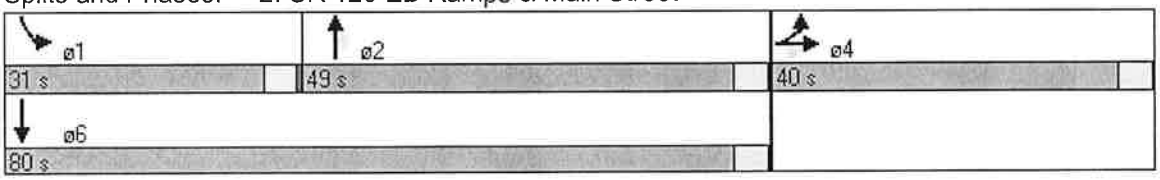
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	0		0	0		30	250		0
Storage Lanes	0		1	0		0	0		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50					50	50	50	50	
Trailing Detector (ft)	0	0	0					0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.98						0.97			
Frt			0.850						0.850			
Flt Protected		0.950								0.950		
Satd. Flow (prot)	0	1703	1553	0	0	0	0	1827	1553	1703	1827	0
Flt Permitted		0.950								0.950		
Satd. Flow (perm)	0	1703	1517	0	0	0	0	1827	1512	1703	1827	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102						11			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1941			1890			956			1462	
Travel Time (s)		44.1			43.0			21.7			33.2	
Volume (vph)	240	0	97	0	0	0	0	367	37	142	132	0
Confl. Peds. (#/hr)			2			2			2			2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	2%	4%	2%	2%	2%	2%	4%	4%	6%	4%	2%
Adj. Flow (vph)	253	0	102	0	0	0	0	386	39	149	139	0
Lane Group Flow (vph)	0	253	102	0	0	0	0	386	39	149	139	0
Turn Type	Split		Perm						Perm	Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2	1	6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0					23.0	23.0	10.0	23.0	
Total Split (s)	40.0	40.0	40.0	0.0	0.0	0.0	0.0	49.0	49.0	31.0	80.0	0.0
Total Split (%)	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	40.8%	40.8%	25.8%	66.7%	0.0%
Maximum Green (s)	36.0	36.0	36.0					45.0	45.0	27.0	76.0	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5	0.5	0.5	0.5	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Max	Max	None	Max	
Walk Time (s)								5.0	5.0		5.0	
Flash Dont Walk (s)								14.0	14.0		11.0	
Pedestrian Calls (#/hr)								2	2		2	

Intersection Summary

Area Type: Other
Cycle Length: 120

Actuated Cycle Length: 104.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR 120 EB Ramps & Main Street



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200	0	0			200
Storage Lanes	1	1	0			1
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950			0.998		
Satd. Flow (prot)	1770	1583	0	1859	1863	1583
Flt Permitted	0.950			0.998		
Satd. Flow (perm)	1770	1583	0	1859	1863	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	1848			1095	956	
Travel Time (s)	42.0			24.9	21.7	
Volume (vph)	14	12	13	390	208	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	13	14	411	219	22
Lane Group Flow (vph)	15	13	0	425	219	22
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

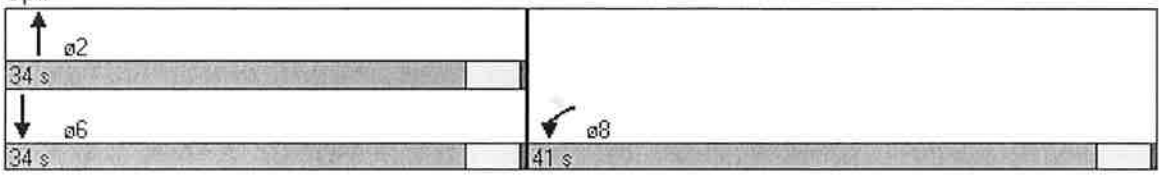
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300	0		0	0	
Storage Lanes	1	0		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50			50
Trailing Detector (ft)	0	0	0			0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1687	1583	3539	0	0	3505
Flt Permitted	0.950					
Satd. Flow (perm)	1687	1583	3539	0	0	3505
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		45				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		35			35
Link Distance (ft)	5239		280			686
Travel Time (s)	102.1		5.5			13.4
Volume (vph)	331	43	385	0	0	340
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	7%	2%	2%	2%	2%	3%
Adj. Flow (vph)	348	45	405	0	0	358
Lane Group Flow (vph)	348	45	405	0	0	358
Turn Type		Perm				
Protected Phases	8		2			6
Permitted Phases		8				
Detector Phases	8	8	2			6
Minimum Initial (s)	4.0	4.0	4.0			4.0
Minimum Split (s)	20.0	20.0	21.0			20.0
Total Split (s)	41.0	41.0	34.0	0.0	0.0	34.0
Total Split (%)	54.7%	54.7%	45.3%	0.0%	0.0%	45.3%
Maximum Green (s)	37.0	37.0	30.0			30.0
Yellow Time (s)	3.5	3.5	3.5			3.5
All-Red Time (s)	0.5	0.5	0.5			0.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Recall Mode	C-Max	C-Max	Min			Min
Walk Time (s)	5.0	5.0	5.0			
Flash Dont Walk (s)	9.0	9.0	12.0			
Pedestrian Calls (#/hr)	2	2	2			

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 7 (9%), Referenced to phase 8:WBL, Start of Yellow

Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 10: SR 99 SB & Moffat Blvd.



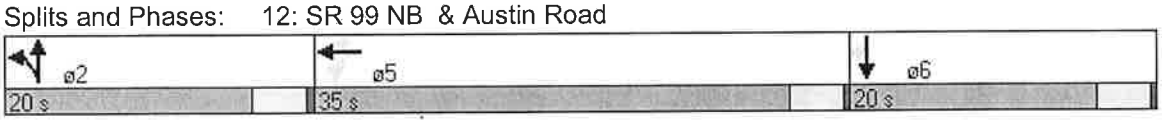
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		75	125		0	0		100
Storage Lanes	0		0	0		1	1		0	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50	50	50	50			50	50
Trailing Detector (ft)				0	0	0	0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected					0.953		0.950	0.985				
Satd. Flow (prot)	0	0	0	0	1709	1583	1633	1728	0	0	1863	1583
Flt Permitted					0.953		0.950	0.985				
Satd. Flow (perm)	0	0	0	0	1709	1583	1633	1728	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						43						26
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		813			3783			920			1913	
Travel Time (s)		15.8			73.7			20.9			43.5	
Volume (vph)	0	0	0	395	4	52	157	88	0	0	171	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	2%	2%	5%	2%	2%	2%	2%	2%
Adj. Flow (vph)	0	0	0	416	4	55	165	93	0	0	180	26
Lane Group Flow (vph)	0	0	0	0	420	55	124	134	0	0	180	26
Turn Type				Perm		Perm	Split					Perm
Protected Phases					5		2	2			6	
Permitted Phases				5		5						6
Detector Phases				5	5	5	2	2			6	6
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0	21.0	20.0	20.0			20.0	20.0
Total Split (s)	0.0	0.0	0.0	35.0	35.0	35.0	20.0	20.0	0.0	0.0	20.0	20.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	46.7%	26.7%	26.7%	0.0%	0.0%	26.7%	26.7%
Maximum Green (s)				31.0	31.0	31.0	16.0	16.0			16.0	16.0
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	3.5
All-Red Time (s)				0.5	0.5	0.5	0.5	0.5			0.5	0.5
Lead/Lag				Lead	Lead	Lead					Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes					Yes	Yes
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode				C-Max	C-Max	C-Max	Min	Min			Min	Min
Walk Time (s)							5.0	5.0			5.0	5.0
Flash Dont Walk (s)							9.0	9.0			9.0	9.0
Pedestrian Calls (#/hr)							2	2			2	2

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 5:WBTL, Start of Yellow

Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 12: SR 99 NB & Austin Road



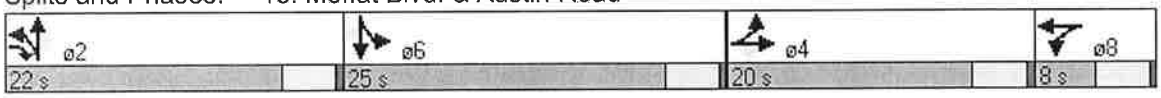
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		30	125		100
Storage Lanes	1		1	0		0	0		1	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Turning Speed (mph)	15		15	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.899				0.850			0.850
Flt Protected	0.950							0.984			0.991	
Satd. Flow (prot)	1770	1863	1509	0	1675	0	0	1792	1468	0	1734	1583
Flt Permitted	0.950							0.984			0.991	
Satd. Flow (perm)	1770	1863	1509	0	1675	0	0	1792	1468	0	1734	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			420		3				32			325
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		280			979			5705			920	
Travel Time (s)		5.5			19.1			129.7			20.9	
Volume (vph)	88	184	399	0	1	3	75	154	53	45	212	309
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	3%	5%	10%	2%	10%	2%
Adj. Flow (vph)	93	194	420	0	1	3	79	162	56	47	223	325
Lane Group Flow (vph)	93	194	420	0	4	0	0	241	56	0	270	325
Turn Type	Split		pm+ov	Split			Split		Perm	Split		Perm
Protected Phases	4	4	2	8	8		2	2		6	6	
Permitted Phases			4						2			6
Detector Phases	4	4	2	8	8		2	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	8.0	8.0		20.0	20.0	20.0	25.0	25.0	25.0
Total Split (s)	20.0	20.0	22.0	8.0	8.0	0.0	22.0	22.0	22.0	25.0	25.0	25.0
Total Split (%)	26.7%	26.7%	29.3%	10.7%	10.7%	0.0%	29.3%	29.3%	29.3%	33.3%	33.3%	33.3%
Maximum Green (s)	16.0	16.0	18.0	4.0	4.0		18.0	18.0	18.0	21.0	21.0	21.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min	None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)	5.0	5.0	5.0				5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	9.0	9.0	9.0				9.0	9.0	9.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	2	2	2				2	2	2	2	2	2

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Yellow, Master Intersection

Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 13: Moffat Blvd. & Austin Road



Existing Plus Project Phase 1 Mitigation PM Peak Hour

Synchro Volume Inputs

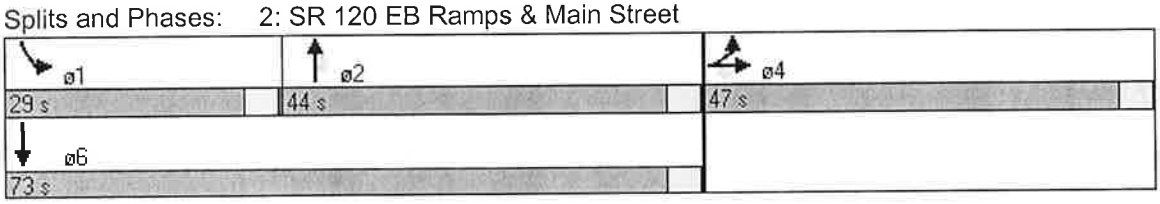
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	0		0	0		30	250		0
Storage Lanes	0		1	0		0	0		1	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50					50	50	50	50	
Trailing Detector (ft)	0	0	0					0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.98						0.97			
Frt			0.850						0.850			
Flt Protected		0.950								0.950		
Satd. Flow (prot)	0	1770	1583	0	0	0	0	1863	1583	1770	1863	0
Flt Permitted		0.950								0.950		
Satd. Flow (perm)	0	1770	1547	0	0	0	0	1863	1542	1770	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			213						6			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1941			1890			956			1435	
Travel Time (s)		44.1			43.0			21.7			32.6	
Volume (vph)	420	0	202	0	0	0	0	414	27	228	287	0
Confl. Peds. (#/hr)			2			2			2			2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	442	0	213	0	0	0	0	436	28	240	302	0
Lane Group Flow (vph)	0	442	213	0	0	0	0	436	28	240	302	0
Turn Type	Split		Perm						Perm	Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2	1	6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0					23.0	23.0	10.0	23.0	
Total Split (s)	47.0	47.0	47.0	0.0	0.0	0.0	0.0	44.0	44.0	29.0	73.0	0.0
Total Split (%)	39.2%	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	36.7%	36.7%	24.2%	60.8%	0.0%
Maximum Green (s)	43.0	43.0	43.0					40.0	40.0	25.0	69.0	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5	0.5	0.5	0.5	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Max	Max	None	Max	
Walk Time (s)								5.0	5.0		5.0	
Flash Dont Walk (s)								14.0	14.0		11.0	
Pedestrian Calls (#/hr)								2	2		2	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 109.3

Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR 120 EB Ramps & Main Street



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200	0	0			200
Storage Lanes	1	1	0			1
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950			0.998		
Satd. Flow (prot)	1770	1583	0	1859	1863	1583
Flt Permitted	0.950			0.998		
Satd. Flow (perm)	1770	1583	0	1859	1863	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	1848			1089	956	
Travel Time (s)	42.0			24.8	21.7	
Volume (vph)	92	34	17	349	404	85
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	97	36	18	367	425	89
Lane Group Flow (vph)	97	36	0	385	425	89
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

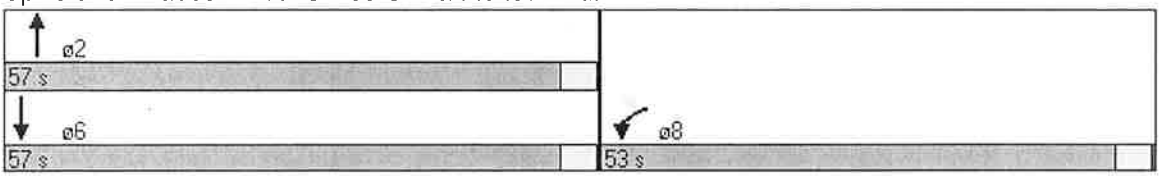
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300	0		0	0	
Storage Lanes	1	0		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50			50
Trailing Detector (ft)	0	0	0			0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850				
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	3539	0	0	3539
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	3539	0	0	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		45				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		35			35
Link Distance (ft)	2444		280			1204
Travel Time (s)	47.6		5.5			23.5
Volume (vph)	184	43	353	0	0	497
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	194	45	372	0	0	523
Lane Group Flow (vph)	194	45	372	0	0	523
Turn Type		Perm				
Protected Phases	8		2			6
Permitted Phases		8				
Detector Phases	8	8	2			6
Minimum Initial (s)	4.0	4.0	4.0			4.0
Minimum Split (s)	20.0	20.0	21.0			20.0
Total Split (s)	53.0	53.0	57.0	0.0	0.0	57.0
Total Split (%)	48.2%	48.2%	51.8%	0.0%	0.0%	51.8%
Maximum Green (s)	49.0	49.0	53.0			53.0
Yellow Time (s)	3.5	3.5	3.5			3.5
All-Red Time (s)	0.5	0.5	0.5			0.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Recall Mode	C-Max	C-Max	Min			Min
Walk Time (s)	5.0	5.0	5.0			
Flash Dont Walk (s)	9.0	9.0	12.0			
Pedestrian Calls (#/hr)	2	2	2			

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 19 (17%), Referenced to phase 8:WBL, Start of Yellow
Natural Cycle: 45

Control Type: Actuated-Coordinated

Splits and Phases: 10: SR 99 SB & Moffat Blvd.



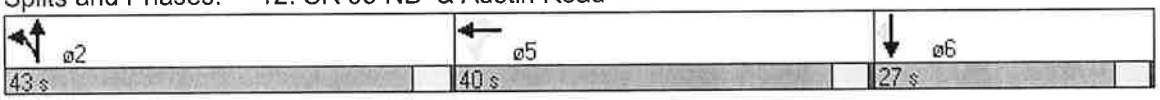
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		75	125		0	0		100
Storage Lanes	0		0	0		1	1		0	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50	50	50	50			50	50
Trailing Detector (ft)				0	0	0	0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected					0.953		0.950	0.974				
Satd. Flow (prot)	0	0	0	0	1775	1583	1681	1724	0	0	1863	1583
Flt Permitted					0.953		0.950	0.974				
Satd. Flow (perm)	0	0	0	0	1775	1583	1681	1724	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						39						40
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		813			4376			920			1252	
Travel Time (s)		15.8			85.2			20.9			28.5	
Volume (vph)	0	0	0	267	3	54	441	141	0	0	142	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	281	3	57	464	148	0	0	149	40
Lane Group Flow (vph)	0	0	0	0	284	57	298	314	0	0	149	40
Turn Type				Perm		Perm	Split					Perm
Protected Phases					5		2	2			6	
Permitted Phases				5		5						6
Detector Phases				5	5	5	2	2			6	6
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0	21.0	20.0	20.0			20.0	20.0
Total Split (s)	0.0	0.0	0.0	40.0	40.0	40.0	43.0	43.0	0.0	0.0	27.0	27.0
Total Split (%)	0.0%	0.0%	0.0%	36.4%	36.4%	36.4%	39.1%	39.1%	0.0%	0.0%	24.5%	24.5%
Maximum Green (s)				36.0	36.0	36.0	39.0	39.0			23.0	23.0
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	3.5
All-Red Time (s)				0.5	0.5	0.5	0.5	0.5			0.5	0.5
Lead/Lag				Lead	Lead	Lead					Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes					Yes	Yes
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode				C-Max	C-Max	C-Max	Min	Min			Min	Min
Walk Time (s)							5.0	5.0			5.0	5.0
Flash Dont Walk (s)							9.0	9.0			9.0	9.0
Pedestrian Calls (#/hr)							2	2			2	2

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 73 (66%), Referenced to phase 5:WBTL, Start of Yellow
Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 12: SR 99 NB & Austin Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		30	125		100
Storage Lanes	1		1	0		0	0		1	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Turning Speed (mph)	15		15	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.910				0.850			0.850
Flt Protected	0.950				0.984			0.990			0.982	
Satd. Flow (prot)	1770	1863	1583	0	1668	0	0	1844	1583	0	1829	1583
Flt Permitted	0.950				0.984			0.990			0.982	
Satd. Flow (perm)	1770	1863	1583	0	1668	0	0	1844	1583	0	1829	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			248		2				37			245
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		280			2982			5697			920	
Travel Time (s)		5.5			58.1			129.5			20.9	
Volume (vph)	135	310	236	1	0	2	120	445	174	65	111	233
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	142	326	248	1	0	2	126	468	183	68	117	245
Lane Group Flow (vph)	142	326	248	0	3	0	0	594	183	0	185	245
Turn Type	Split		pm+ov	Split			Split		Perm	Split		Perm
Protected Phases	4	4	2	8	8		2	2		6	6	
Permitted Phases			4						2			6
Detector Phases	4	4	2	8	8		2	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	8.0	8.0		20.0	20.0	20.0	25.0	25.0	25.0
Total Split (s)	29.0	29.0	48.0	8.0	8.0	0.0	48.0	48.0	48.0	25.0	25.0	25.0
Total Split (%)	26.4%	26.4%	43.6%	7.3%	7.3%	0.0%	43.6%	43.6%	43.6%	22.7%	22.7%	22.7%
Maximum Green (s)	25.0	25.0	44.0	4.0	4.0		44.0	44.0	44.0	21.0	21.0	21.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min	None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)	5.0	5.0	5.0				5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	9.0	9.0	9.0				9.0	9.0	9.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	2	2	2				2	2	2	2	2	2

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Yellow, Master Intersection
Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 13: Moffat Blvd. & Austin Road

Existing Plus Project

Selected Ramp Junction Ramp Merge, Diverge, and Weaving Analysis

Calculation Sheets

HCS+: Ramps and Ramp Junctions Release 5.3

Phone: Fax:
E-mail:

Diverge Analysis

Analyst:	CB
Agency/Co.:	Fehr & Peers
Date performed:	8/8/2010
Analysis time period:	AM Peak
Freeway/Dir of Travel:	SR 99 NB
Junction:	Off Ramp to Austin Road
Jurisdiction:	City of Manteca
Analysis Year:	Exisitng plus Project
Description: ARBPRC	

Freeway Data

Type of analysis	Diverge	
Number of lanes in freeway	3	
Free-flow speed on freeway	65.0	mph
Volume on freeway	5827	vph

Off Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-Flow speed on ramp	35.0	mph
Volume on ramp	1110	vph
Length of first accel/decel lane	150	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist?	No	
Volume on adjacent ramp		vph
Position of adjacent ramp		
Type of adjacent ramp		
Distance to adjacent ramp		ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway		Ramp		Adjacent Ramp	
Volume, V (vph)	5827		1110			vph
Peak-hour factor, PHF	0.95		0.95			
Peak 15-min volume, v15	1533		292			v
Trucks and buses	14		14			%
Recreational vehicles	0		0			%
Terrain type:	Level		Level			
Grade	0.00	%	0.00	%		%
Length	0.00	mi	0.00	mi		mi
Trucks and buses PCE, ET	1.5*		1.5			
Recreational vehicle PCE, ER	1.2		1.2			

Heavy vehicle adjustment, fHV	0.935	0.935	
Driver population factor, fP	1.00	1.00	
Flow rate, vp	6563	1250	pcph

Estimation of V12 Diverge Areas

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.538 Using Equation 5

$v_{12} = v_R + (v_F - v_R) P_{FD}$ = 4111 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
$v_{Fi} = v_F$	6563	7050	No
$v_{FO} = v_F - v_R$	5313	7050	No
v_R	1250	2000	No
v_3 or v_{av34}	2452 pc/h	(Equation 25-15 or 25-16)	
Is v_3 or v_{av34} > 2700 pc/h?		No	
Is v_3 or v_{av34} > 1.5 v_{12} /2		No	

If yes, v_{12A} = 4111 (Equation 25-18)

Flow Entering Diverge Influence Area

	Actual	Max Desirable	Violation?
v_{12}	4111	4400	No

Level of Service Determination (if not F)

Density, $D_R = 4.252 + 0.0086\, v_{12} - 0.009\, L_D$ = 38.3 pc/mi/ln

Level of service for ramp-freeway junction areas of influence E

Speed Estimation

Intermediate speed variable,	D_S = 0.540	
Space mean speed in ramp influence area,	S_R = 52.6	mph
Space mean speed in outer lanes,	S_O = 65.6	mph
Space mean speed for all vehicles,	S = 56.8	mph

Leisch Method for Weaving Analysis

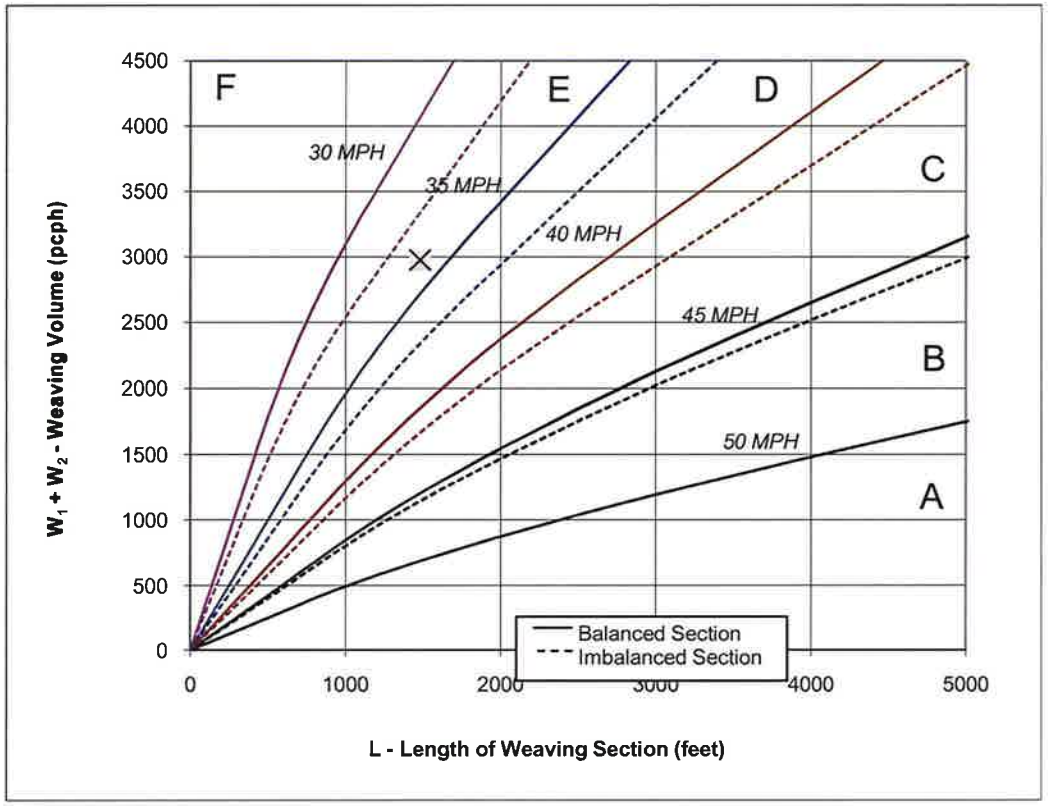
Data Input

Number of Entering Mainline Lanes	N_b	3
Number of Lanes in Weaving Section	N	4
Length of Weaving Section (feet)	L	1,480

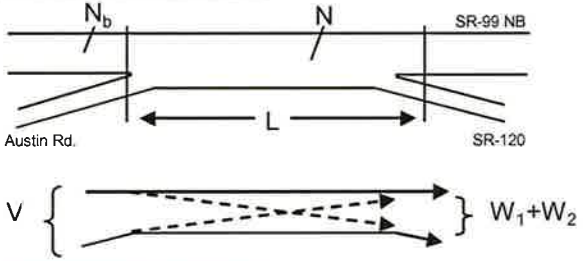
Project Information

Project	Austin Rd.
Scenario	Existing + Project AM
Freeway	SR-99 NB
On-ramp	Austin Rd.
Off-ramp	SR-120

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	5,522	Volume (vph)*	750	Volume (vph)*	2,032
Truck Percentage	14%	Truck Percentage	14%	Truck Percentage	14%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,909	Volume (pcph)	803	Volume (pcph)	2,174



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   30 MPH and **35 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **34.1**
4. Weaving Intensity Factor (k) **2.94**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,865**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections*, Jack E. Leisch & Associates, September 1983.

HCS+: Ramps and Ramp Junctions Release 5.3

Phone: Fax:
E-mail:

Merge Analysis

Analyst:	CB
Agency/Co.:	Fehr and Peers
Date performed:	8/8/2010
Analysis time period:	PM Peak
Freeway/Dir of Travel:	SR 99 SB
Junction:	Austin Road
Jurisdiction:	City of Manteca
Analysis Year:	Existing Plus Project
Description: ARBPRC	

Freeway Data

Type of analysis	Merge	
Number of lanes in freeway	3	
Free-flow speed on freeway	65.0	mph
Volume on freeway	4762	vph

On Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-flow speed on ramp	35.0	mph
Volume on ramp	2150	vph
Length of first accel/decel lane	500	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist?	No	
Volume on adjacent Ramp		vph
Position of adjacent Ramp		
Type of adjacent Ramp		
Distance to adjacent Ramp		ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway	Ramp	Adjacent Ramp	
Volume, V (vph)	4762	2150		vph
Peak-hour factor, PHF	0.95	0.87		
Peak 15-min volume, v15	1253	618		v
Trucks and buses	14	5		%
Recreational vehicles	0	0		%
Terrain type:	Level	Level		
Grade	%	%	%	
Length	mi	mi	mi	
Trucks and buses PCE, ET	1.5	1.5		
Recreational vehicle PCE, ER	1.2	1.2		

Heavy vehicle adjustment, fHV	0.935	0.976	
Driver population factor, fP	1.00	1.00	
Flow rate, vp	5364	2533	pcph

Estimation of V12 Merge Areas

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.591 Using Equation 1

$v_{12} = v_F (P_{FM})$ = 3173 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
v_{FO}	7897	7050	Yes
v_3 or v_{av34}	2191 pc/h	(Equation 25-4 or 25-5)	
Is v_3 or v_{av34} > 2700 pc/h?		No	
Is v_3 or v_{av34} > 1.5 v_{12} /2		No	
If yes, v_{12A} = 3173		(Equation 25-8)	

Flow Entering Merge Influence Area

	Actual	Max Desirable	Violation?
v_{R12}	3173	4600	Yes

Level of Service Determination (if not F)

Density, $D_R = 5.475 + 0.00734\ v_{R12} + 0.0078\ v_{R12} - 0.00627\ L_A$ = 45.7 pc/mi/ln

Level of service for ramp-freeway junction areas of influence F

Speed Estimation

Intermediate speed variable,	M_S = 1.459	
Space mean speed in ramp influence area,	S_R = 31.5	mph
Space mean speed in outer lanes,	S_O = 58.9	mph
Space mean speed for all vehicles,	S = 36.1	mph

Phone: Fax:
E-mail:

Diverge Analysis

Analyst:	CB
Agency/Co.:	Fehr and Peers
Date performed:	8/8/2010
Analysis time period:	PM Peak
Freeway/Dir of Travel:	SR 99 SB
Junction:	Off Ramp to Austin Road
Jurisdiction:	City of Manteca
Analysis Year:	Exisitng Plus Project
Description: ARBPRC	

Freeway Data

Type of analysis	Diverge	
Number of lanes in freeway	3	
Free-flow speed on freeway	65.0	mph
Volume on freeway	5870	vph

Off Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-Flow speed on ramp	35.0	mph
Volume on ramp	1020	vph
Length of first accel/decel lane	150	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist?	No	
Volume on adjacent ramp		vph
Position of adjacent ramp		
Type of adjacent ramp		
Distance to adjacent ramp		ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway		Ramp		Adjacent Ramp	
Volume, V (vph)	5870		1020			vph
Peak-hour factor, PHF	0.95		0.95			
Peak 15-min volume, v15	1545		268			v
Trucks and buses	14		14			%
Recreational vehicles	0		0			%
Terrain type:	Level		Level			
Grade	0.00	%	0.00	%		%
Length	0.00	mi	0.00	mi		mi
Trucks and buses PCE, ET	1.5*		1.5			
Recreational vehicle PCE, ER	1.2		1.2			

Heavy vehicle adjustment, fHV	0.935	0.935	
Driver population factor, fP	1.00	1.00	
Flow rate, vp	6611	1149	pcph

Estimation of V12 Diverge Areas

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.542 Using Equation 5

$v_{12} = v_R + (v_F - v_R) P_{FD}$ = 4109 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
$v_{Fi} = v_F$	6611	7050	No
$v_{FO} = v_F - v_R$	5462	7050	No
v_R	1149	2000	No
v_3 or v_{av34}	2502 pc/h	(Equation 25-15 or 25-16)	
Is v_3 or v_{av34} > 2700 pc/h?		No	
Is v_3 or v_{av34} > 1.5 v_{12} /2		No	
If yes, v_{12A} = 4109		(Equation 25-18)	

Flow Entering Diverge Influence Area

	Actual	Max Desirable	Violation?
v_{12}	4109	4400	No

Level of Service Determination (if not F)

Density, $D_R = 4.252 + 0.0086\, v_{12} - 0.009\, L_D$ = 38.2 pc/mi/ln

Level of service for ramp-freeway junction areas of influence E

Speed Estimation

Intermediate speed variable,	D_S = 0.531	
Space mean speed in ramp influence area,	S_R = 52.8	mph
Space mean speed in outer lanes,	S_O = 65.4	mph
Space mean speed for all vehicles,	S = 56.9	mph

Austin Road BPRC

Queuing Results Tables for All Analysis Scenarios

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project:	*ARBPRC*			***HCM:***	*2000*
Scenario:	*E+P*			***PHF:***	*0.95*
TOD:	*AM Peak Hou*	***Analysis Period:***	*15 Minutes*	***# of Runs:***	*10*

Intersection: *1: SR 120 WB Ramp & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	275	267	--	--	149	--	--
	T	1361	231	--	--	58	--	--
SB	T	819	194	--	--	102	--	--
	R	819	121	--	--	61	--	--
WB	L	1880	100	--	--	37	--	--
	T	1880	100	--	--	37	--	--
	R	150	145	--	--	74	--	--

Intersection: *2: SR 120 EB Ramps & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	568	303	--	--	199	--	--
	R	30	56	Yes	--	28	--	--
SB	L	250	187	--	--	108	--	--
	T	1361	130	--	--	51	--	--
EB	L	1756	241	--	--	137	--	--
	T	1756	241	--	--	137	--	--
	R	250	64	--	--	39	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *E+P* ***PHF:*** *0.95*
TOD: *AM Peak Hou* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *10: Moffat Blvd. & SR 99 SB* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
SB	L	1932	2005	Yes	--	1993	Yes	--
	R	1932	2005	Yes	--	1993	Yes	--
EB	T	1061	864	--	--	592	--	--

Intersection: *12: SR 99 NB & Austin Rd.* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	836	189	--	--	117	--	--
	T	836	189	--	--	117	--	--
SB	T	2665	1066	--	--	705	--	--
	R	2665	1066	--	--	705	--	--
WB	L	4989	5062	Yes	--	4476	--	--
	T	4989	5062	Yes	--	4476	--	--
	R	75	106	Yes	--	29	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *E+P* ***PHF:*** *0.95*
TOD: *AM Peak Hou* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *23: Colony Rd / SR 99 On-Ramps & Hoff Rd/SR 99* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	225	65	--	--	41	--	--
	T	526	63	--	--	42	--	--
	R	526	63	--	--	42	--	--
SB	L	125	27	--	--	8	--	--
	T	619	36	--	--	9	--	--
	R	619	32	--	--	11	--	--
EB	L	100	24	--	--	7	--	--
	T	915	49	--	--	29	--	--
	R	75	53	--	--	11	--	--
WB	L	175	71	--	--	42	--	--
	T	1395	64	--	--	45	--	--
	R	1395	34	--	--	20	--	--

Intersection: *24: SR 99 SB & Jack Tone Rd* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	1260	82	--	--	40	--	--
	R	1260	59	--	--	30	--	--
SB	T	749	75	--	--	28	--	--
EB	L	425	99	--	--	66	--	--
	T	1336	99	--	--	66	--	--
	R	425	58	--	--	37	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *E+P* ***PHF:*** *0.95*
TOD: *PM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *1: SR 120 WB Ramp & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	275	263	--	--	172	--	--
	T	1361	293	--	--	112	--	--
SB	T	815	321	--	--	182	--	--
	R	815	189	--	--	95	--	--
WB	L	1880	67	--	--	36	--	--
	T	1880	67	--	--	36	--	--
	R	150	125	--	--	65	--	--

Intersection: *2: SR 120 EB Ramps & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	568	599	Yes	--	589	Yes	--
	R	30	54	Yes	--	39	Yes	--
SB	L	250	283	Yes	--	264	Yes	--
	T	1361	742	--	--	465	--	--
EB	L	1756	1453	--	--	1202	--	--
	T	1756	1453	--	--	1202	--	--
	R	250	286	Yes	--	229	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *E+P* ***PHF:*** *0.95*
TOD: *PM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *10: Moffat Blvd. & SR 99 SB* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
SB	L	2196	2264	Yes	--	2251	Yes	--
	R	2196	2264	Yes	--	2251	Yes	--
EB	T	1138	1212	Yes	--	1209	Yes	--

Intersection: *12: SR 99 NB & Austin Rd.* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	826	145	--	--	88	--	--
	T	826	145	--	--	88	--	--
SB	T	3034	1237	--	--	758	--	--
	R	3034	1237	--	--	758	--	--
WB	L	4134	4208	Yes	--	4154	Yes	--
	T	4134	4208	Yes	--	4154	Yes	--
	R	75	103	Yes	--	42	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *E+P* ***PHF:*** *0.95*
TOD: *PM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *23: Colony Rd / SR 99 On-Ramps & Hoff Rd/SR 99* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	225	73	--	--	46	--	--
	T	526	72	--	--	40	--	--
	R	526	72	--	--	40	--	--
SB	L	125	37	--	--	20	--	--
	T	619	27	--	--	7	--	--
	R	619	33	--	--	10	--	--
EB	L	100	28	--	--	11	--	--
	T	915	52	--	--	35	--	--
	R	75	25	--	--	5	--	--
WB	L	175	52	--	--	30	--	--
	T	1395	68	--	--	43	--	--
	R	1395	44	--	--	25	--	--

Intersection: *24: SR 99 SB & Jack Tone Rd* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	1504	109	--	--	56	--	--
	R	1504	107	--	--	52	--	--
SB	T	743	82	--	--	34	--	--
EB	L	425	121	--	--	82	--	--
	T	1336	121	--	--	82	--	--
	R	425	69	--	--	45	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *CNP* ***PHF:*** *0.99*
TOD: *AM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *1: SR 120 WB Ramp & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	275	315	Yes	--	295	Yes	--
	T	1360	1388	Yes	--	1036	--	--
SB	T	819	390	--	--	254	--	--
	R	819	348	--	--	199	--	--
WB	L	1880	279	--	--	161	--	--
	T	1880	279	--	--	161	--	--
	R	150	173	Yes	--	97	--	--

Intersection: *2: SR 120 EB Ramps & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	547	635	Yes	--	563	Yes	--
	R	547	606	Yes	--	287	--	--
SB	L	250	229	--	--	156	--	--
	T	1360	340	--	--	167	--	--
EB	L	1746	1761	Yes	--	1275	--	--
	T	1746	1761	Yes	--	1275	--	--
	R	250	300	Yes	--	258	Yes	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *CNP* ***PHF:*** *0.99*
TOD: *AM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *10: Moffat Blvd. & SR 99 SB* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
SB	L	1932	605	--	--	369	--	--
	R	1932	605	--	--	369	--	--
EB	T	1061	1135	Yes	--	1040	--	--

Intersection: *12: SR 99 NB & Austin Rd.* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	836	120	--	--	82	--	--
	T	836	120	--	--	82	--	--
SB	T	2665	150	--	--	80	--	--
	R	2665	150	--	--	80	--	--
WB	L	4989	303	--	--	197	--	--
	T	4989	303	--	--	197	--	--
	R	75	114	Yes	--	64	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *CNP* ***PHF:*** *0.99*
TOD: *AM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *23: Colony Rd / SR 99 On-Ramps & Hoff Rd/SR 99* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	225	64	--	--	43	--	--
	T	526	72	--	--	42	--	--
	R	526	72	--	--	42	--	--
SB	L	125	30	--	--	14	--	--
	T	619	35	--	--	16	--	--
	R	619	37	--	--	12	--	--
EB	L	100	25	--	--	7	--	--
	T	915	69	--	--	33	--	--
	R	75	89	Yes	--	30	--	--
WB	L	175	77	--	--	46	--	--
	T	1395	73	--	--	46	--	--
	R	1395	42	--	--	29	--	--

Intersection: *24: SR 99 SB & Jack Tone Rd* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	1260	97	--	--	57	--	--
	R	1260	91	--	--	48	--	--
SB	T	749	63	--	--	29	--	--
EB	L	425	104	--	--	62	--	--
	T	1336	102	--	--	62	--	--
	R	425	62	--	--	39	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *CNP* ***PHF:*** *0.99*
TOD: *PM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *1: SR 120 WB Ramp & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	275	309	Yes	--	297	Yes	--
	T	1360	1392	Yes	--	1265	--	--
SB	T	815	845	Yes	--	833	Yes	--
	R	815	842	Yes	--	725	--	--
WB	L	1880	577	--	--	363	--	--
	T	1880	577	--	--	363	--	--
	R	150	186	Yes	--	119	--	--

Intersection: *2: SR 120 EB Ramps & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	547	611	Yes	--	578	Yes	--
	R	547	549	Yes	--	193	--	--
SB	L	250	284	Yes	--	236	--	--
	T	1360	1131	--	--	857	--	--
EB	L	1746	1819	Yes	--	1814	Yes	--
	T	1746	1819	Yes	--	1814	Yes	--
	R	250	303	Yes	--	238	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *CNP* ***PHF:*** *0.99*
TOD: *PM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *10: Moffat Blvd. & SR 99 SB* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
SB	L	2196	2266	Yes	--	2046	--	--
	R	2196	2266	Yes	--	2046	--	--
EB	T	1138	1214	Yes	--	1159	Yes	--

Intersection: *12: SR 99 NB & Austin Rd.* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	826	88	--	--	58	--	--
	T	826	88	--	--	58	--	--
SB	T	3034	200	--	--	116	--	--
	R	3034	200	--	--	116	--	--
WB	L	4134	1177	--	--	648	--	--
	T	4134	1177	--	--	648	--	--
	R	75	104	Yes	--	88	Yes	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *CNP* ***PHF:*** *0.99*
TOD: *PM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *23: Colony Rd / SR 99 On-Ramps & Hoff Rd/SR 99* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	225	94	--	--	58	--	--
	T	526	63	--	--	40	--	--
	R	526	63	--	--	40	--	--
SB	L	125	48	--	--	26	--	--
	T	619	41	--	--	23	--	--
	R	619	35	--	--	16	--	--
EB	L	100	25	--	--	11	--	--
	T	915	75	--	--	46	--	--
	R	75	86	Yes	--	23	--	--
WB	L	175	58	--	--	37	--	--
	T	1395	71	--	--	45	--	--
	R	1395	55	--	--	33	--	--

Intersection: *24: SR 99 SB & Jack Tone Rd* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	1504	146	--	--	83	--	--
	R	1504	122	--	--	65	--	--
SB	T	743	78	--	--	38	--	--
EB	L	425	107	--	--	71	--	--
	T	1336	103	--	--	71	--	--
	R	425	138	--	--	66	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *C+P* ***PHF:*** *0.99*
TOD: *AM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *1: SR 120 WB Ramp & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	275	306	Yes	--	300	Yes	--
	T	1360	1389	Yes	--	1197	--	--
SB	T	819	271	--	--	189	--	--
	R	819	342	--	--	207	--	--
WB	L	1880	259	--	--	140	--	--
	T	1880	259	--	--	140	--	--
	R	150	161	Yes	--	103	--	--

Intersection: *2: SR 120 EB Ramps & Main Street* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	547	627	Yes	--	576	Yes	--
	R	547	598	Yes	--	284	--	--
SB	L	250	249	--	--	194	--	--
	T	1360	405	--	--	175	--	--
EB	L	1746	1819	Yes	--	1693	--	--
	T	1746	1819	Yes	--	1693	--	--
	R	250	300	Yes	--	265	Yes	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *C+P* ***PHF:*** *0.99*
TOD: *AM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *10: Moffat Blvd. & SR 99 SB* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
SB	L	1932	2001	Yes	--	1989	Yes	--
	R	1932	2001	Yes	--	1989	Yes	--
EB	T	1061	1137	Yes	--	1117	Yes	--

Intersection: *12: SR 99 NB & Austin Rd.* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	836	147	--	--	93	--	--
	T	836	147	--	--	93	--	--
SB	T	2665	562	--	--	319	--	--
	R	2665	562	--	--	319	--	--
WB	L	4989	4777	--	--	3115	--	--
	T	4989	4777	--	--	3115	--	--
	R	75	114	Yes	--	82	Yes	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *C+P* ***PHF:*** *0.99*
TOD: *AM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *23: Colony Rd / SR 99 On-Ramps & Hoff Rd/SR 99* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	225	77	--	--	45	--	--
	T	526	74	--	--	45	--	--
	R	526	74	--	--	45	--	--
SB	L	125	29	--	--	13	--	--
	T	619	36	--	--	16	--	--
	R	619	31	--	--	10	--	--
EB	L	100	24	--	--	7	--	--
	T	915	69	--	--	33	--	--
	R	75	87	Yes	--	38	--	--
WB	L	175	65	--	--	44	--	--
	T	1395	67	--	--	44	--	--
	R	1395	42	--	--	29	--	--

Intersection: *24: SR 99 SB & Jack Tone Rd* ***Type:*** *Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	1260	114	--	--	61	--	--
	R	1260	97	--	--	53	--	--
SB	T	749	66	--	--	35	--	--
EB	L	425	99	--	--	62	--	--
	T	1336	98	--	--	62	--	--
	R	425	64	--	--	41	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: ARBPRC **HCM:** 2000
Scenario: C+P **PHF:** 0.99
TOD: PM Peak Hr **Analysis Period:** 15 Minutes **# of Runs:** 10

Intersection: 1: SR 120 WB Ramp & Main Street **Type:** Signalized

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	275	306	Yes	--	300	Yes	--
	T	1360	1388	Yes	--	1117	--	--
SB	T	815	838	Yes	--	830	Yes	--
	R	815	835	Yes	--	677	--	--
WB	L	1880	1316	--	--	802	--	--
	T	1880	1316	--	--	802	--	--
	R	150	186	Yes	--	101	--	--

Intersection: 2: SR 120 EB Ramps & Main Street **Type:** Signalized

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	547	645	Yes	--	583	Yes	--
	R	547	473	--	--	310	--	--
SB	L	250	280	Yes	--	191	--	--
	T	1360	1387	Yes	--	1297	--	--
EB	L	1746	1819	Yes	--	1813	Yes	--
	T	1746	1819	Yes	--	1813	Yes	--
	R	250	283	Yes	--	275	Yes	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: *ARBPRC* ***HCM:*** *2000*
Scenario: *C+P* ***PHF:*** *0.99*
TOD: *PM Peak Hr* ***Analysis Period:*** *15 Minutes* ***# of Runs:*** *10*

Intersection: *10: Moffat Blvd. & SR 99 SB* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
SB	L	2196	2260	Yes	--	2250	Yes	--
	R	2196	2260	Yes	--	2250	Yes	--
EB	T	1138	1214	Yes	--	1211	Yes	--

Intersection: *12: SR 99 NB & Austin Rd.* ***Type:*** *Un-Signalized*

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	826	633	--	--	517	--	--
	T	826	633	--	--	517	--	--
SB	T	3034	1207	--	--	771	--	--
	R	3034	1207	--	--	771	--	--
WB	L	4134	4208	Yes	--	4028	--	--
	T	4134	4208	Yes	--	4028	--	--
	R	75	105	Yes	--	56	--	--

SIMTRAFFIC QUEUING REPORT
Including Upstream Queues

Project: ARBPRC **HCM:** 2000
Scenario: C+P **PHF:** 0.99
TOD: PM Peak Hr **Analysis Period:** 15 Minutes **# of Runs:** 10

Intersection: 23: Colony Rd / SR 99 On-Ramps & Hoff Rd/SR 99 **Type:** Un-Signalized

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	L	225	99	--	--	60	--	--
	T	526	64	--	--	39	--	--
	R	526	64	--	--	39	--	--
SB	L	125	43	--	--	21	--	--
	T	619	47	--	--	22	--	--
	R	619	29	--	--	13	--	--
EB	L	100	29	--	--	8	--	--
	T	915	69	--	--	47	--	--
	R	75	87	Yes	--	27	--	--
WB	L	175	60	--	--	38	--	--
	T	1395	72	--	--	48	--	--
	R	1395	59	--	--	36	--	--

Intersection: 24: SR 99 SB & Jack Tone Rd **Type:** Signalized

Approach	Movement	Storage Length	Maximum Queue (ft)			95th Queue (ft)		
			Avg	> Storage	Std Dev	Avg	> Storage	Std Dev
NB	T	1504	178	--	--	110	--	--
	R	1504	178	--	--	106	--	--
SB	T	743	87	--	--	47	--	--
EB	L	425	123	--	--	80	--	--
	T	1336	122	--	--	80	--	--
	R	425	111	--	--	67	--	--

Austin Road BPRC

Caltrans STAA Letter

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048, STOCKTON, CA 95201
(1976 E. CHARTER WAY/1976 E. DR. MARTIN LUTHER KING JR. BLVD. 95205)
PHONE (209) 603-5126
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Flex your power!
Be energy efficient!

December 7, 2009

10-SJ-99-PM 5.82 E. Yosemite Avenue
10-SJ-120-PM 3.23 Airport Way
10-SJ-120-PM 4.31 Union Road
10-SJ-120-PM 5.31 Main Street

Mark Houghton
Director of Public Works
City of Manteca
1001 W. Center Street
Manteca, CA 95337

Dear Mr. Houghton:

A field investigation and off-tracking analysis was completed at the above referenced interchanges, based on the request for Surface Transportation Assistance Act (STAA) Terminal Access received on September 24, 2009. The analysis was performed using AutoTURN software for turning movements within the Department's (Caltrans) jurisdiction for proposed access to Terminals in the Spreckles Park area, the commercial area north of the Airport Way interchange, along Daniels Street and commercial area south of the Union Road interchange, via West Atherton Drive and Lakeside Avenue, as shown on the maps provided as part of your request. The City of Manteca is responsible for evaluating STAA turning movements within their jurisdiction. Below are the results of the investigation and analysis at the interchanges:

SJ-99 PM 5.82 E. Yosemite Avenue:

- Northbound SJ-99 off-ramp to westbound E. Yosemite Avenue (left turn): Meets STAA off-tracking requirements, minor striping modification will be required
- Southbound SJ-99 off-tramp to westbound E. Yosemite Avenue (right turn): Meets STAA off-tracking requirements.
- Eastbound E. Yosemite Avenue to northbound SJ-99 on-ramp (left turn): Meets STAA off-tracking requirements.
- Eastbound E. Yosemite Avenue to southbound SJ-99 on-ramp (right turn): Meets STAA off-tracking requirements, minor striping modification will be required

Based on the above results, minor striping modification will be necessary at both ramp intersections. We have processed the request to make the striping modification. Once this is completed, all the ramps will accommodate STAA trucks for trucks traveling to/from E. Yosemite Avenue. The proposed 24/7 turnaround will consist of connecting this interchange with the SJ-120/Main Street interchange as discussed in our November 19, 2009 meeting. The SJ-120/Main Street interchange does accommodate STAA trucks.

A response letter, dated October 2, 2009, addressed to Joe Cordero, Schneider Logistic (for Terminal Access to the Ford Company) indicated that 24/7 turnaround would need to be provided at the Terminal. However, the turnaround proposed by the City will fulfill this 24/7 requirement.

A Terminal Access request was also received by Michael Jennaro for Terrill Transportation, also in the Spreckles Park area for Terminal Access via this interchange. This letter will serve as official response to this Terminal Access request.

10-SJ-120-PM 3.23 Airport Way:

- Eastbound SJ-120 off-ramp to northbound Airport Way (left turn): Meets STAA off-tracking requirements
- Westbound SJ-120 off-ramp to northbound Airport Way (right turn): Meets STAA off-tracking requirements.
- Southbound Airport Way to SJ-120 eastbound on-ramp (left turn): Meets STAA off-tracking requirements.
- Southbound Airport Way to SJ-120 westbound on-ramp (right turn): Meets STAA off-tracking requirements

Based on the above results, this interchange can accommodate STAA trucks to/from Airport Way to the north of SJ-120. We will need a letter confirming that 24/7 turnaround will be provided at the end of the Terminal Access route. In addition, we await a final sign plan within the City's jurisdiction before we can proceed with the sign installation request for this interchange.

10-SJ-120-PM 4.31 Union Road:

- Eastbound SJ-120 off-ramp to southbound Union Road (right turn): Meets STAA off-tracking requirements
- Westbound SJ-120 off-ramp to southbound Union Road (left turn): **Does not** meet STAA off-tracking requirements.
- Northbound Union Road to SJ-120 westbound on-ramp (left turn): Meets STAA off-tracking requirements.

- Northbound Union Road to SJ-120 eastbound on-ramp (right turn): Meets STAA off-tracking requirements

Based on the above results, this interchange can accommodate STAA trucks for three of four movements to/from Union Road to the south of SJ-120. Pavement widening will be necessary in order to improve the westbound to southbound movement. Based on the provided map, it appears that 24/7 turnaround can be achieved at the end of Lakeside Avenue. Please verify if this is the turnaround or if another turnaround will be used at the end of this Terminal Access route.

10-SJ-120-PM 5.31 Main Street:

- Eastbound SJ-120 off-ramp to northbound Main Street (left turn): Meets STAA off-tracking requirements
- Westbound SJ-120 off-ramp to northbound Main Street (right turn): Meets STAA off-tracking requirements.
- Southbound Main Street to SJ-120 eastbound on-ramp (left turn): Meets STAA off-tracking requirements.
- Southbound Main Street to SJ-120 westbound on-ramp (right turn): Meets STAA off-tracking requirements

Based on the above results, this interchange can accommodate STAA trucks to/from Main Street to the north of SJ-120 via Industrial Park Drive, Spreckles Avenue and Yosemite Avenue. The proposed 24/7 turnaround will consist of connecting this interchange with the SJ-99/Yosemite Avenue interchange. The SJ-99/Yosemite Avenue interchange, as previously mentioned, will accommodate STAA trucks upon completion of pavement striping modification.

The sign installation and pavement striping modification process at the SJ-99/Yosemite Avenue interchange has begun and we will notify you once we have installed the signs for SJ-120/Main Street interchange and SJ-99/Yosemite Avenue interchange. For the SJ-120/Airport Way interchange signage, we await the sign installation plan from the city. At SJ-120/Union Road, pavement widening will need to be completed in order for the westbound to southbound movement to accommodate STAA trucks. Please confirm all STAA 24/7 turnaround locations.

The letter from the City of Manteca dated November 19, 2009 shows the proposed signs to be installed within the City's jurisdiction. We concur with the proposal. However, the attached exhibits do not show the results from the City's off-tracking analysis. We are requesting that you provide, for our file, the off-tracking analysis performed at these intersections.

If you have any questions, please contact Armando Soria, at (209) 948-7184.

Sincerely,

VU H. NGUYEN, Chief
Traffic Operations Branch

c: Michael Jennaro
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