AGENDA TRANSMITTAL FORM

To: **Board of Supervisors**

Date: January 2, 2013

From: Louis D. Boitano, Chairman (Department Head - please type)

Phone Ext. _____

Department Head Signature _____

☒ Regular Agenda
☐ Consent Agenda
☐ Blue Slip
☐ Closed Session

Meeting Date Requested: January 8, 2013

Agenda Title: CRHMFA Homebuyers Fund

Summary: (Provide detailed summary of the purpose of this item; attach additional page if necessary)
Discussion and possible action relative to a public hearing pursuant to Section 147(f) of the Internal Revenue Code of 1986 (the "Code") will be held by the CRHMFA Homebuyers Fund, a joint exercise of powers authority organized and existing under and by virtue of California Government Code Section 6500 et seq. (the "Authority") on behalf of itself as the issuer of the Bonds and the County of Amador (the "County") as representative of the Authority to consider the proposed issuance by the Authority of its single-family housing bonds.

Recommendation/Requested Action:

Fiscal Impacts (attach budget transfer form if appropriate)

Staffing Impacts

Is a 4/5ths vote required? Yes ☐ No ☐

Committee Review? N/A ☐
Name _____
Committee Recommendation: _____

Contract Attached:	Yes ☐	No ☐	N/A ☐
Resolution Attached:	Yes ☐	No ☐	N/A ☐
Ordinance Attached	Yes ☐	No ☐	N/A ☐

Comments: _____

Request Reviewed by:

Chairman _____ Counsel _____

Auditor _____ GSA Director _____

CAO _____ Risk Management _____

Distribution Instructions: (Inter-Departmental Only, the requesting Department is responsible for distribution outside County Departments)

FOR CLERK USE ONLY

Meeting Date 1-8-13 Time _____ Item # 1 Public Hearing

Board Action: Approved Yes___ No___ Unanimous Vote: Yes___ No___

Ayes: _____ Resolution _____ Ordinance _____ Other: _____

Noes _____ Resolution _____ Ordinance _____

Absent: _____ Comments: _____

Distributed on _____

Completed by _____

A new ATF is required from _____ Department
For meeting of _____

I hereby certify this is a true and correct copy of action(s) taken and entered into the official records of the Amador County Board of Supervisors.

ATTEST: _____
Clerk or Deputy Board Clerk

MEMORANDUM

TO: MS. KOPICO
CRHMFA HOMEBUYERS FUND

FROM: PAUL O'HANLON
KUTAK ROCK LLP

DATE: MARCH 1, 2007

RE: TEFRA APPROVAL PROCEDURES

INTRODUCTION

As part of CRHMFA Homebuyers Fund's ("CHF") mission, it acts as an issuer of private activity bonds for the purpose of assisting borrowers in financing the acquisition of homes. To receive tax-exempt status for these private activity bonds, Section 147(f) of the Internal Revenue Code of 1986, as amended (the "Code") requires issuers of such bonds to comply with certain notice, hearing and approval procedures concerning a proposed bond issue, (as provided in the Tax Equity and Fiscal Responsibility Act of 1982 ("TEFRA")). This Memorandum discusses the necessity of TEFRA approval, the procedures involved to receive such approvals and the ramifications for those governmental entities providing such approvals.

DISCUSSION

1. What is the purpose of complying with TEFRA?

Section 147(f) of the Code requires CHF to receive approval by the governing body of the issuer and a host entity in order to maintain the tax exempt status of the private activity bonds (that is, bonds issued to finance facilities to be utilized by private individuals rather than the general public).

2. How does an entity get TEFRA approval?

The federal government imposed a requirement on state and local issuers of tax-exempt private activity bonds that the bonds be approved both by (1) the governmental unit (i) that will issue the bonds or (ii) on behalf of which the bonds will be issued ("Issuer Approval") and (2) each governmental unit having jurisdiction over the area in which the financed facilities will be located ("Host Approval"). The public approval must be obtained from the "applicable elected representative" of the applicable governmental unit after a public hearing notice of which was published in a general circulation newspaper at least 14 days prior to the hearing. The term "applicable elected representative" includes the chief elected executive officer, the chief elected state legal officer or any other elected official designated by the chief elected executive officer or by state law. Federal law requires that issuers of mortgage revenue bonds issued as part of a single plan of finance to obtain this public approval at least once every three years (beginning on

the date of the first bonds issued after the TEFRA public approval process is completed). As CHF has a single plan of finance that is carried out through multiple bond issues, it must seek TEFRA approval at least once every three years.

a) Issuer Approval

Since CHF is not a governmental unit but is a joint powers agency acting on behalf of its constituent members, and because the CHF board members are not elected officials of CHF itself, a TEFRA approval by the CHF board is not sufficient to meet the federal Issuer Approval requirements. Instead, the governmental unit on behalf of which the bonds will be issued, must provide TEFRA approval. Under the IRS Regulations, if an issuer issues obligations on behalf of more than one governmental unit, then any one of such units may give the Issuer Approval required by the Code.

b) Host Approval

Host Approval must be received by each governmental unit having jurisdiction over the area for which the facility for which financing is provided is located. As CHF finances homes located throughout the state of California, CHF may receive Host Approval from a statewide official. CHF must obtain the required Host Approval from either (1) the applicable elected representative of each CHF member county and city where loans will be made, or (2) from the applicable elected representative of the State of California (the "State"), as the State has jurisdiction over all the CHF member jurisdictions. Under the Code and California law, the Governor, the Attorney General or the State Treasurer is eligible to provide the Host Approval.

3. Implications to the governmental entities providing the approvals.

The entity that gives Issuer Approval is a member of CHF, and as such, has the fiduciary responsibilities of that position. California law and the related CHF bond documents limit the liability for each member, subject only to the proceeds of such bonds. While it is theoretically possible that a county giving TEFRA approval could subject itself to liability, it would require fraudulent conduct on the county's part (for example, if the county was participating in a scheme to embezzle the bond proceeds).

CHF will need to obtain the Issuer Approval from the board of supervisors of one of its member counties, that effectively acts as an agent for all CHF members so that CHF need not obtain such an approval from all member counties. The Issuer Approval to be obtained from the CHF approving member does *not* obligate that member to issue the tax-exempt single-family bonds on behalf of CHF. CHF will continue to be the issuer of the bonds, and the offering documents for the bonds will continue to state that none of the CHF members are liable for repayment of the bonds and that the bonds do not constitute a debt of any of CHF's members. In addition, the CHF board must give prior approval to each issuance of CHF bonds.

If you have any questions regarding this memo, please contact Paul O'Hanlon at (816) 960-0090.

STATE OF CALIFORNIA)
) SS
COUNTY OF AMADOR)

I, _____, Clerk of the Board of Supervisors of the County of Amador, State of California, hereby certify the above and foregoing to be a full, true and correct copy of a Resolution and Order adopted by the Board of Supervisors on the __ day of _____, 2013.

Dated this __ day of _____, 2013.

_____
Clerk of the Board of Supervisors
County of Amador, State of California

By _____
Deputy

OFFICE OF
BOARD OF SUPERVISORS
810 COURT STREET * JACKSON, CA 95642 (209) 223-6470 * FAX (209) 257-0619

GOVERNMENT UNIT APPROVAL PURSUANT TO SECTION 147(F) OF THE INTERNAL REVENUE CODE OF 1986

Pursuant to the public hearing on January 8, 2013, reasonable notice of which was given prior thereto, I, Louis Boitano, Chairman of the Board of Supervisors of the County of Amador, do hereby give my approval for the purposes of Internal Revenue Code Section 147(f) for the issuance of tax-exempt qualified mortgage bonds proposed by the California Rural Home Mortgage Finance Authority (CRHMFA) Homebuyers Fund (CHF) in an amount not to exceed $750,000,000 for the purpose of financing the acquisition and construction of owner-occupied residences in the State of California.

Date: _____

_____
Louis Boitano
Amador County Board of Supervisors

Resolution No. ___

Resolution of the Board of Supervisors approving the issuance of qualified mortgage bonds by the CRHMFA Homebuyers Fund.

WHEREAS, counties and cities located within the State of California are permitted to join, for the express purpose of the joint exercise of the powers of said counties and cities, agencies created by a joint powers agreement entered into pursuant to Article I of Chapter 5 of Division 7 of Title I of the Government Code of the State of California;

WHEREAS, Chapters 1-5 of Part 5 of Division 31 of the Health and Safety Code of the State of California (the "Act") authorize joint powers agencies established by cities and counties to incur indebtedness for the purpose of financing home mortgages authorized by the Act, and the Act provides a completed additional and alternative method for doing the things authorized thereby;

WHEREAS, numerous rural counties in the State of California, including Amador County (the "County"), have agreed, and additional counties and cities may agree, pursuant to the provisions of the Government Code referenced above, to cooperate and participate in a home financing program and have entered into a Joint Exercise of Power Agreement, amended and restated as of January 28, 2004, creating CRHMFA Homebuyers Fund (the "Authority") and authorizing the Authority to exercise their powers pursuant to the Act for the purpose of financing home mortgages with respect to property located within the geographic boundaries of said counties and cities;

WHEREAS, the Authority desires to undertake programs to finance home mortgages pursuant to the Act and desires from time to time to provide for the borrowing of money for such purpose through the issuance of mortgage revenue bonds as authorized by the Act (the "Bonds");

WHEREAS, Section 147(f) of the Internal Revenue Code of 1986 (the "Code") requires that all such bonds receive approval from certain specified elected officials, as described below, subsequent to a public hearing concerning the bond issue, said public hearings are required to be held after reasonable notice of the meeting is printed in a newspaper of general circulation;

WHEREAS, the Tax Equity and Fiscal Responsibility Act of 1982 ("TEFRA") imposed a requirement on state and local issuers of tax-exempt private activity bonds that the bonds be approved both by (1) the governmental unit (i) that will issue the bonds or (ii) on behalf of which the bonds will be issued ("Issuer Approval") and (2) each governmental unit having jurisdiction over the area in which the financed facilities will be located ("Host Approval");

WHEREAS, the IRS Regulations allow an issuer that issues obligations on behalf of more than one governmental unit to have any one of such units give the Issuer Approval required by the Code; and

WHEREAS, the Authority now requests that the County provide the required Issuer Approval in accordance with the provisions of the Code;

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors (the "Board") of the County that the above recitals, and each of them, are true and correct.

BE IT FURTHER RESOLVED, the Authority has, on the date hereof, held a public hearing in the City of Jackson, California, pursuant to Section 147(f) of the Code to consider the proposed issuance by the Authority of the Bonds, and has received and reported to this Board any written comments from persons with views in favor of or opposed to the proposed issuance of the Bonds, or the use of the proceeds to finance mortgage loans made to eligible persons and families of low or moderate income for the purchase of single-family residences located in the State of California.

BE IT FURTHER RESOLVED, the Authority published notice of said public hearing as required by Section 147(f) of the Code in a newspaper of general circulation in the County of Amador, California, at least 14 days prior to the date hereof.

BE IT FURTHER RESOLVED, the Board hereby recognizes that the Bonds will not and do not constitute an indebtedness of the members of the Authority (including the County), or a general obligation of the Authority.

BE IT FURTHER RESOLVED, the Board hereby approves the issuance of tax-exempt Bonds by the Authority in an amount not to exceed $750,000,000 to be issued within three years of the date of first issuance pursuant to this approval for the purpose of financing the acquisition and construction of owner-occupied residences in the State of California.

BE IT FURTHER RESOLVED, this Resolution shall take effect from and after its adoption.

The foregoing resolution was offered on a motion by Supervisor _____, seconded by Supervisor _____ and adopted by the following vote of the Board:

AYES:

NOES:

ABSENT OR NOT VOTING:

AGENDA TRANSMITTAL FORM

To: **Board of Supervisors**

Date: January 2, 2013

From: Louis D. Boitano, Chairman (Department Head - please type)

Phone Ext. _____

Department Head Signature _____

☒ Regular Agenda
☐ Consent Agenda
☐ Blue Slip
☐ Closed Session

Meeting Date Requested: January 8, 2013

Agenda Title: 2013 Chairman and Vice Chairman

Summary: (Provide detailed summary of the purpose of this item; attach additional page if necessary)
Discussion and possible action relative to the election of the 2013 Chairman and Vice-Chairman for the Amador County Board of Supervisors.

Recommendation/Requested Action:

Fiscal Impacts (attach budget transfer form if appropriate)

Staffing Impacts

Is a 4/5ths vote required? Yes ☐ No ☐

Committee Review? N/A ☐
Name
Committee Recommendation:

Contract Attached:	Yes ☐	No ☐	N/A ☐
Resolution Attached:	Yes ☐	No ☐	N/A ☐
Ordinance Attached	Yes ☐	No ☐	N/A ☐

Comments:

Request Reviewed by:

Chairman LDB
Auditor EJL
CAO
Counsel GG
GSA Director
Risk Management

Distribution Instructions: (Inter-Departmental Only, the requesting Department is responsible for distribution outside County Departments)

FOR CLERK USE ONLY

Meeting Date 1-8-13 Time Item # 10

Board Action: Approved Yes___ No___ Unanimous Vote: Yes___ No___

Ayes: Resolution Ordinance Other:
Noes Resolution Ordinance
Absent: Comments:

Distributed on

Completed by

A new ATF is required from
Department
For meeting
of

I hereby certify this is a true and correct copy of action(s) taken and entered into the official records of the Amador County Board of Supervisors.

ATTEST: _____
Clerk or Deputy Board Clerk

AGENDA TRANSMITTAL FORM

To: **Board of Supervisors**

Date: January 2, 2013

From: Louis D. Boitano, Chairman
(Department Head - please type)

Phone Ext. _____

Department Head Signature _____

☒ Regular Agenda
☐ Consent Agenda
☐ Blue Slip
☐ Closed Session

Meeting Date Requested:
January 8, 2013

Agenda Title: Passing of the Gavel and Presentation

Summary: (Provide detailed summary of the purpose of this item; attach additional page if necessary)
Discussion and possible action relative to the passing of the gavel to the incoming 2012 Chairman of the Board and presentation of a plaque honoring outgoing 2012 Chairman, Louis Boitano.

Recommendation/Requested Action:

Fiscal Impacts (attach budget transfer form if appropriate)

Staffing Impacts

Is a 4/5ths vote required? Yes ☐ No ☐

Committee Review? N/A ☐
Name
Committee Recommendation:

Contract Attached: Yes ☐ No ☐ N/A ☐
Resolution Attached: Yes ☐ No ☐ N/A ☐
Ordinance Attached Yes ☐ No ☐ N/A ☐
Comments:

Request Reviewed by:
Chairman
Auditor
CAO
Counsel GG
GSA Director
Risk Management

Distribution Instructions: (Inter-Departmental Only, the requesting Department is responsible for distribution outside County Departments)

FOR CLERK USE ONLY

Meeting Date 1-8-13 Time _____ Item # 7

Board Action: Approved Yes___ No___ Unanimous Vote: Yes___ No___

Ayes: _____ Resolution _____ Ordinance _____ Other: _____

Noes _____ Resolution _____ Ordinance _____

Absent: _____ Comments: _____

Distributed on _____

Completed by _____

A new ATF is required from _____
Department
For meeting of _____

I hereby certify this is a true and correct copy of action(s) taken and entered into the official records of the Amador County Board of Supervisors.

ATTEST: _____
Clerk or Deputy Board Clerk

AGENDA TRANSMITTAL FORM

To: **Board of Supervisors**

Date: December 26, 2012

From: James C. Wegner (Department Head - please type) Phone Ext. 515

Department Head Signature

☒ Regular Agenda
☐ Consent Agenda
☐ Blue Slip
☐ Closed Session

Meeting Date Requested: Jan 8, 2013

Agenda Title: Resolutions honoring Amador County Sheriff's Office retirees

Summary: (Provide detailed summary of the purpose of this item; attach additional page if necessary)
Approve attached resolutions honoring Captain Ron Rockett, Captain Drew Stidger and Detective Tom Rayzor upon their retirement for their many years of service to the Amador County Sheriff's Office and the County of Amador.

Recommendation/Requested Action:
Authorize and approve resolutions

Fiscal Impacts (attach budget transfer form if appropriate)
None

Staffing Impacts None

Is a 4/5ths vote required? Yes ☐ No ☒

Committee Review? N/A ☒
Name
Committee Recommendation:

Contract Attached:	Yes ☐	No ☐	N/A ☒
Resolution Attached:	Yes ☒	No ☐	N/A ☐
Ordinance Attached	Yes ☐	No ☐	N/A ☒

Comments:

Request Reviewed by:

Chairman LDB Counsel GG

Auditor EJ Risk Management

CAO GSA Director

Distribution Instructions: (Inter-Departmental Only, the requesting Department is responsible for distribution outside County Departments)
Amador County Sheriff's Office

FOR CLERK USE ONLY

Meeting Date 1-8-13 Time Item # 8

Board Action: Approved Yes___ No___ Unanimous Vote: Yes___ No___

Ayes: Resolution Ordinance Other:

Noes Resolution Ordinance

Absent: Comments:

Distributed on

Completed by

A new ATF is required from
Department
For meeting
of

I hereby certify this is a true and correct copy of action(s) taken and entered into the official records of the Amador County Board of Supervisors.

ATTEST:
Clerk or Deputy Board Clerk

BEFORE THE BOARD OF SUPERVISORS OF THE COUNTY OF AMADOR, STATE OF CALIFORNIA

IN THE MATTER OF:

RESOLUTION HONORING DREW O. STIDGER)
UPON HIS RETIREMENT AFTER 19 YEARS)
OF SERVICE WITH AMADOR COUNTY)

RESOLUTION NO. 12-

WHEREAS, Drew O'dell Stidger was born June 4, 1962 in El Monte, California to Jimmy O'dell & Myrtle Louise Stidger; and

WHEREAS, Drew graduated from Arroyo High School in El Monte, California in 1980; and

WHEREAS, Drew attended college at Rio Hondo College and East Los Angeles Junior College; and

WHEREAS, Drew began his career in Law Enforcement as a Police Explorer with El Monte P.D. in 1976: and

WHEREAS, Drew was hired by the Los Angeles County Sheriff's Department (LASD) in 1983. Drew graduated from the LASD Academy, Class #219 in January 1984. During his career with LASD, Drew was assigned as a Custody Deputy, Watch Deputy, Patrol & Traffic Deputy, Field Training Officer and Detective; and

WHEREAS, Drew received the "Exemplary Service Award" from Los Angeles County Sheriff Sherman Block in 1993 for saving the life of a Grand Theft Auto suspect, bringing credit to himself, his partner and the Department: and

WHEREAS, Drew was hired by the Jackson Police Department as a Patrol Officer in 1993; and

WHEREAS, Drew was hired by the Amador County Sheriff's Office as a Deputy Sheriff in 1995. Drew held the positions of USFS/Kirkwood Deputy, Cadet Coordinator, Search & Rescue Coordinator, Field Training Officer, Property Crimes, Elder Abuse & Coroner Investigator. Drew was also a member of SWAT, CSU and MSU; and

WHEREAS, In 2000, Drew became the proud Father of Victoria Anne Stidger & Stephanie Marie Stidger; and

WHEREAS, In 2000, Drew promoted to Sergeant working as a Patrol Supervisor and Investigator; and

WHEREAS, In 2007, Drew promoted to Lieutenant and was assigned to oversee the Investigations and Communications Bureaus; and

WHEREAS, In 2010, Drew promoted to Captain and was assigned to oversee the Corrections and Court Security Bureaus; and

THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Amador, State of California, that said Board does hereby adopt this resolution commending Drew O'dell Stidger for his nineteen years of service to the people of the County of Amador.

The foregoing resolution was duly passed and adopted by the Board of Supervisors of the County of Amador at a regular meeting thereof, held on the XXth day of November 2012, by the following vote:

AYES:

NOES:

ABSENT:

_____
Chairman, Board of Supervisors

ATTEST:

JENNIFER BURNS, Clerk of the
Board of Supervisors, Amador County,
California

_____

BEFORE THE BOARD OF SUPERVISORS OF THE COUNTY OF AMADOR, STATE OF CALIFORNIA

IN THE MATTER OF:

RESOLUTION HONORING RONALD "RON") RESOLUTION NO. 12-
ROCKETT UPON HIS RETIREMENT AFTER 25)
YEARS OF SERVICE WITH AMADOR COUNTY)

WHEREAS, Ronald "Ron" Rockett was born on January 27, 1950 to Robert and Mary Rockett in National City, California; and

WHEREAS, Ron graduated from Mount Eden High School in 1968. Ron inlisted in the United States Army Reserves from 1968 to 1974, and was called to active duty for six months in 1969; and

WHEREAS, in 1984 Ron began his law enforcement career with the Baldwin Park Police Department in Southern California as a Police Officer and Investigator; and

WHEREAS, Ron was hired by the Amador County Sheriff Office as a Deputy Sheriff in 1987; and

WHEREAS, in 1992 Ron was promoted to the rank of Sergeant and assigned to the Patrol Bureau; and

WHEREAS, in 1993 Ron was assigned to the Investigations Bureau, and held the following collateral dutes; Amador Narcotics Enforcement Unit Supervisor, Field Training Officer Program Coordinator, Background Investigator, Detective Coroner and Hostage Negotiator; and

WHEREAS, from 1996 to 1998 Ron was assigned as the Administrative Sergeant overseeing Internal Affairs, and returned to his assignment in the Patrol Bureau.

WHEREAS, from 1996 to 2006 Ron instructed at the California Department of Forestry Basic POST Law Enforcement Academy in Ione.

WHEREAS, in 2002 Ron was promoted to the rank of Lieutenant and was assigned to the Custody and Court Security Bureaus, and just two months later he was promoted to the rank of Captain; and

WHEREAS, in 2010, Ron was assigned to the Operations Division overseeing the Patrol, Investigations, and Communications Bureaus,

THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Amador, State of California, that said Board does hereby adopt this resolution commending Ronald "Ron" Rockett for his twenty five years of service to the people of Amador County.

The foregoing resolution was duly passed and adopted by the Board of Supervisors of the County of Amador at a regular meeting thereof, held on the XXth day of December 2012, by the following vote:

AYES:

NOES:

ABSENT:

_____
Chairman, Board of Supervisors

ATTEST:

JENNIFER BURNS, Clerk of the
Board of Supervisors, Amador County,
California

BEFORE THE BOARD OF SUPERVISORS OF THE

COUNTY OF AMADOR, STATE OF CALIFORNIA

IN THE MATTER OF:

RESOLUTION HONORING THOMAS RAYZOR JR.	)	RESOLUTION NO. 12-
UPON HIS RETIREMENT AFTER 15 YEARS	)	
OF SERVICE WITH AMADOR COUNTY	)	

WHEREAS, Thomas "Tom" William Rayzor Jr. was born on April 22, 1956 in Lompoc to Thomas and Mildred Rayzor; and

WHEREAS, Tom graduated from Crescenta Valley High School in June of 1974; and

WHEREAS, Tom married his wife Marilyn Kay Rayzor on May 17, 1980; and

WHEREAS, Tom has been a member of the National Rifle Association since 1969; and

WHEREAS, Tom began his career in law enforcement as a Reserve Police Officer for the San Fernando Police Department in 1991; and

WHEREAS, Tom graduated from the Rio Hondo Police Academy in June of 1997; and

WHEREAS, Tom began his career with the Amador County Sheriff's Office on October 7, 1997; and

WHEREAS, Tom has worked many assignments at the Amador County Sheriff's Office including, Field Training Officer, SWAT Operator, and Detective; and

WHEREAS. Tom was a member of the Amador County Sheriff's Office COPPS Team and was instrumental in developing the Amador County Sheriff's Office Toy Drive; and

WHEREAS, Tom has been a dedicated employee and a friend to many during his tenure at the Amador County Sheriff's Office;

THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Amador, State of California, that said Board does hereby adopt this resolution commending Thomas "Tom" Rayzor Jr. for his many years of service to the people of the County of Amador.

The foregoing resolution was duly passed and adopted by the Board of Supervisors of the County of Amador at a regular meeting thereof, held on the XX day of XXX, 20XX by the following vote:

AYES:

NOES:

ABSENT:

_____

Chairman, Board of Supervisors

ATTEST:

JENNIFER BURNS, Clerk of the
Board of Supervisors, Amador County,
California

_____

AGENDA TRANSMITTAL FORM

☒ Regular Agenda
☐ Consent Agenda
☐ Blue Slip
☐ Closed Session

Meeting Date Requested: January 8, 2013

To: **Board of Supervisors**

Date: January 2, 2013

From: Chuck Iley, County Administrative Officer
(Department Head - please type)

Phone Ext. ______

Department Head Signature [signature]

Agenda Title: Amador County Transportation Commission (ACTC)

Summary: (Provide detailed summary of the purpose of this item; attach additional page if necessary)
Discussion and possible action relative to a proposal by Caltrans to relinquish State Route 16 to the City of Rancho Cordova and the City and County of Sacramento.

Recommendation/Requested Action:

Fiscal Impacts (attach budget transfer form if appropriate)

Staffing Impacts

Is a 4/5ths vote required? Yes ☐ No ☐

Committee Review? N/A ☐
Name ______
Committee Recommendation: ______

	Yes	No	N/A
Contract Attached:	☐	☐	☐
Resolution Attached:	☐	☐	☐
Ordinance Attached	☐	☐	☐

Comments: ______

Request Reviewed by:

Chairman [initials] Counsel GG
Auditor [initials] GSA Director [initials]
CAO [initials] Risk Management [initials]

Distribution Instructions: (Inter-Departmental Only, the requesting Department is responsible for distribution outside County Departments)

FOR CLERK USE ONLY

Meeting Date 1-8-13 Time ______ Item # 9

Board Action: Approved Yes___ No___ Unanimous Vote: Yes___No___

Ayes: ______ Resolution ______ Ordinance ______ Other: ______
Noes ______ Resolution ______ Ordinance ______
Absent: ______ Comments: ______

Distributed on ______
Completed by ______

A new ATF is required from ______ Department
For meeting of ______

I hereby certify this is a true and correct copy of action(s) taken and entered into the official records of the Amador County Board of Supervisors.

ATTEST: ______
Clerk or Deputy Board Clerk

Jennifer Burns< jburns@amadorgov.org>

Fwd: 1/8 Board of Supervisors meeting

1 message

Chuck Iley< ciley@amadorgov.org> Thu, Dec 27, 2012 at 1:16 PM
To: Jennifer Burns <jburns@amadorgov.org>

---------- Forwarded message ----------
From: **Neil Peacock** <neil@actc-amador.org>
Date: Thu, Dec 27, 2012 at 12:55 PM
Subject: RE: 1/8 Board of Supervisors meeting
To: Chuck Iley <ciley@amadorgov.org>, Charles Field <charles@actc-amador.org>
Cc: Aaron Brusatori <abrusatori@amadorgov.org>

Mr. Iley,

Yes; of course. Attached above is a copy of Charles' staff report and the study done by Fehr & Peers. Aaron should have a copy of the Appendix to the study on a disk, which contains designs of the proposed improvements. A letter expressing the ACTC's concerns is currently being circulated for review as well. The Commission directed that it should be provided to our local partners for their consideration, which we'll do once it has been signed off.

Charles is scheduled to attend to discuss, as needed, and we would suggest inviting Dean Blank with the County of Sacramento's Department of Transportation (blankd@saccounty.net), David Van Dyken with Caltrans District 3 (david.van.dyken@dot.ca.gov), and John Gedney with Caltrans District 10 (john_gedney@dot.ca.gov).

If possible, we'd like to ask that another matter be placed on the Board's agenda for the same day to make the most efficient use of our time. As advised by our Legal Counsel, we need to amend our Conflict of Interest Code to simplify & define the Disclosure Categories included in Exhibit A of the Appendix. As the BOS is the ACTC's Code Reviewing Body, any such amendments need to be presented accordingly. Attached above is a staff report and attachments for this item. This would be greatly appreciated.

Please let me know if you have any questions or if there's anything else I can do to assist. Thanks so much.

Neil

From: Chuck Iley [mailto:ciley@amadorgov.org]
Sent: Wednesday, December 26, 2012 7:58 AM
To: Charles Field; Neil Peacock
Subject: 1/8 Board of Supervisors meeting

Charles/Neil,

The Board will be discussing the SR 16/Caltrans issues at its meeting on 1/8 (9:00am). Supervisor Plasse asked that I provide the same presentation that ACTC received to help them understand the issues.

Would you (one or both of you) be able to be there to discuss the issues with the Board? Do you have a contact that I can invite from Caltrans to discuss with the Board?

Thanks,

Chuck

--

Chuck Iley

County Administrative Officer

Amador County, California

810 Court Street

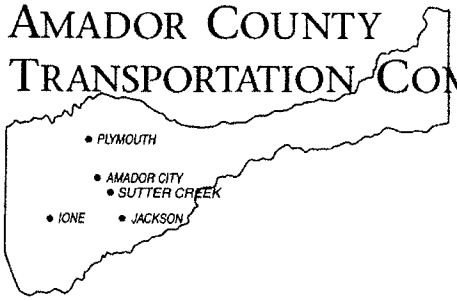
Jackson, CA 95642
voice: (209) 223-6470
fax: (209) 257-0619

www.co.Amador.ca.us

--
Chuck Iley
County Administrative Officer
Amador County, California
810 Court Street
Jackson, CA 95642
voice: (209) 223-6470
fax: (209) 257-0619
www.co.Amador.ca.us

6 attachments

ACTC
AMADOR COUNTY TRANSPORTATION COMMISSION



December 13, 2012

Subject: Caltrans' Relinquishment of State Route 16

TO: Amador County Transportation Commission

FROM: Charles F. Field, Executive Director

RECOMMENDATION:
It is recommended that the Commission discuss the proposal to relinquish State Route 16 in Sacramento County and direct staff regarding ACTC's input concerning this matter.

ACTC has been advised that Caltrans is considering the possible relinquishment of State Route 16 to the City of Rancho Cordova and the City and County of Sacramento. Caltrans has asked if Amador and Calaveras have any concerns regarding this matter. ACTC staff has contacted the Amador Community Development Director as well as SACOG, the City of Rancho Cordova, and the City and County of Sacramento regarding this matter. The ACTC Executive Director also responded to Caltrans expressing that the Amador region may likely have concerns and that the ACTC expects to discuss this matter during their meeting on December 19, 2012 (see attached email to John Gedney dated November 15, 2012). Also attached please find a copy of the State Route 16 (Jackson Road) corridor study prepared by Fehr & Peers, September 2012 and a Project Context Map for the Jackson Highway Master Plan Area showing proposed developments in the subject area. A summary of the SR 16 corridor study is provided in the following bullets:

- A Project Development Team (PDT) comprised of representatives from Caltrans, the City of Sacramento, Sacramento County, Rancho Cordova, Sacramento Regional Transit, and major property owners within the corridor has guided this project (page i).
- Relinquishment of the corridor through the jurisdictions will allow jurisdictions to apply their design standards to development applications without the additional step of coordinating with Caltrans staff, eliminating the need for Caltrans design exceptions. This relinquishment concept will allow for conversion of the corridor from a State highway to a local arterial in the near term, consistent with the concepts presented in the Fehr & Peers report (page vi).
- The purpose and need of the Fehr & Peers study is to determine a roadway footprint/cross section for Jackson Road between South Watt Avenue and Eagles

Nest Road to provide additional vehicle capacity needed because of approved and planned development and to accommodate increased transit, bicycle, and pedestrian activity in a complete street design (page 2).

- Preferred alternatives are #2 - six lane thoroughfare with exclusive bus rapid transit lanes in a median, and alternative #4 - six lane thoroughfare with bus rapid transit lanes in a parallel corridor (see Figures 6, pages 20 and 21).
- The study assumes that all planned improvements can be funded as Tier 1 projects in SACOG's 2008 Metropolitan Transportation Plan (page 6).
- Sacramento County accepts level of service "E" outside of city limits in the Urban Service Boundary (USB) and the entire project area is in their USB (page 11). With projected growth and per the SACOG traffic model, intersections and roadway segments will go to Level of Service "E" and "F" with preferred alternatives constructed. For comparison, the segment of SR 16 between Sunrise and Grant Line Road is already LOS "E" ADT and the Sunrise, Grant Line, and Bradshaw intersections are already LOS "E" and "F" at a.m. and/or p.m. peak hour (page 14).
- Per local transportation plans, there will be additional local road intersections (see last page, Figure 11).
- Wood Rogers (design engineers) prepared a set of plan view exhibits to illustrate the geometrics and rights of way required to convert the existing two lane Jackson Highway to a Sacramento County six lane thoroughfare to be renamed "Jackson Road" between Florin-Perkins Road and Eagle's Nest Road (page 44).
- Chapter 7 of the Fehr & Peers report sets forth the relinquishment framework from which the recommended conclusion is that Caltrans and the city should relinquish the SR 16 corridor between Power Inn Road and Grant Line Road to the cities and county and the agencies should develop a maintenance agreement wherein Caltrans would continue to provide current levels of maintenance in the corridor. No more detailed timeframe or process is provided (page 52).

The City of Rancho Cordova (Mark Thomas, Public Works Department) and the City of Sacramento (Fedolia Harris, Senior Planner) have responded to ACTC's inquiry advising only that the project is in the early planning and discussion stages. ACTC staff subsequently requested a copy of Wood Rodgers' plan view exhibits as well as ordinances, funding programs, or other evidence that the improvements being proposed will be funded as growth takes place. Sacramento County sent the plan lines and has promised the funding information. ACTC design engineering consultant (Rebecca Neilon/Dokken Engineering) has reviewed the plans and will be available to discuss her findings with you on December 19. Copies of the plans have also been provided to Amador County Community Development Director.

CF/nc

Enclosure

Cc: Melissa Eads, Mike McKeever, Jeff Gardner, Aaron Brusatori, Scott Maas, Brian Peters, John Gedney, Michele Demetras

Final Report

STATE ROUTE 16 (JACKSON ROAD) CORRIDOR STUDY

September 2012

Prepared by:

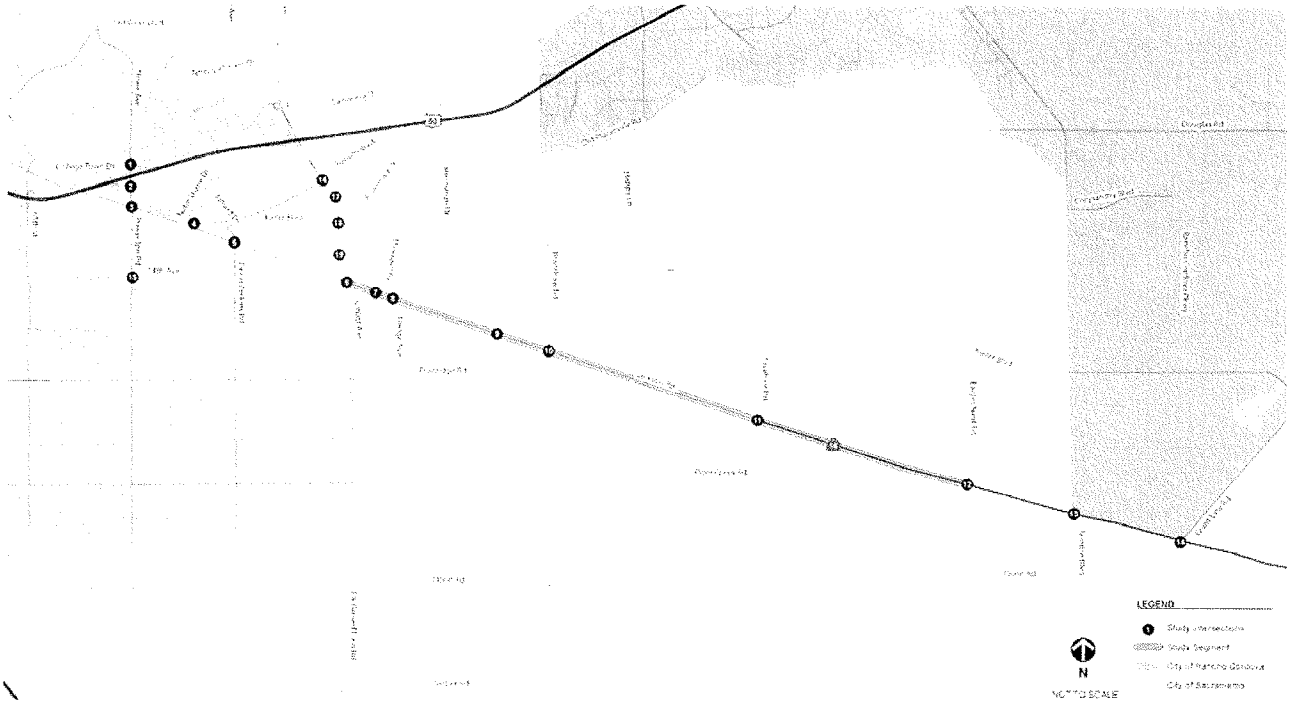
FEHR & PEERS

2990 Lava Ridge Court, Suite 200
Roseville, CA 95661

in partnership with:

WOOD RODGERS

CORRIDOR STUDY



ON ROUTE 16 IN SACRAMENTO COUNTY FROM SOUTH WATT AVENUE TO EAGLES NEST ROAD

I have reviewed the information contained in this Corridor Study and find the data to be complete, current, and accurate, and I agree with the design and relinquishment concepts put forward in this study for this segment of Route 16:

Jody Jones, Director, Caltrans District 3

Michael Penrose, Transportation Director, Sacramento County Department of Transportation

---

Jerry Way, Transportation Director, City of Sacramento Department of Transportation

---

Mike Wiley, General Manager, Sacramento Regional Transit

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

BACKGROUND

The Jackson Highway corridor (State Route 16) provides a vital transportation link within the geographic center of Sacramento County. This corridor connects the Cities of Sacramento and Rancho Cordova with Sacramento and Amador Counties, while providing direct links to the communities of College Glen, Rosemont, and Rancho Murieta. In addition, Jackson Highway intersects major arterials and thoroughfares such as Power Inn Road, South Watt Avenue, Bradshaw Road, Excelsior Road, Sunrise Boulevard and Grant Line Road. Comprised mainly of a two lane roadway, the Jackson Highway corridor has served a diverse and eclectic combination of land uses comprised mainly of active surface mining operations and industrial development, in addition to limited urbanized development primarily located within the City of Sacramento and agricultural and rural residential lands east of Excelsior Road within Sacramento County.

With the completion of the City of Sacramento General Plan in March 2009, and the Sacramento County General Plan in November 2011, it became evident that a comprehensive planning analysis of future conditions for the Jackson Highway corridor was necessary to adequately plan for the future reuse and development of lands along the Jackson Highway corridor, and to ensure that the future roadway would adequately serve the needs of motorists, transit users, bicyclists and pedestrians. With this goal in mind, a Project Development Team (PDT) comprised of representatives from Caltrans, the City of Sacramento, Sacramento County, Rancho Cordova, Sacramento Regional Transit, and major property owners within the corridor was convened in order to accomplish the following goals:

1. Convene a monthly PDT meeting to identify issues and desired outcomes for the Jackson Highway corridor. The study area would reach from US 50/Howe Avenue on the west to Grant Line Road on the east while detailed planning would occur for the area bound by Florin Perkins on the west and Eagles Nest Road on the east.

2. Develop plans for an attractive urban arterial which accommodates vehicles, transit, bicyclists and pedestrians in a context-sensitive, complete streets fashion.

3. Prepare a Corridor Study Report which identifies opportunities and constraints, roadway alternatives and right-of-way requirements, anticipated future access points, phasing, intersection treatments, and desired transit alignments within an ultimate roadway footprint.

This report analyzes existing and future traffic conditions in the State Route 16 (Jackson Road) corridor from the US 50/Howe Avenue–Power Inn Road interchange to Grant Line Road. This section of Jackson Road is expected to convert from a two-lane state highway to a multi-lane urban arterial over the next 10 to 20 years as land uses along the corridor shift from agricultural/aggregate mining to urban uses. Constraints along the corridor, such as existing development and terrain (mining excavation areas), could limit the ability to easily construct a multi-modal transportation facility. The purpose of the study is to define the roadway footprint/cross-section for the segment of Jackson Road between South Watt Avenue and Eagles Nest Road. The road cross-section will accommodate future transportation needs resulting from planned development adjacent to and near the Jackson Road corridor.

In addition to providing increased automobile capacity, the County of Sacramento General Plan Circulation Map and Sacramento Regional Transit (RT) Transit Action Plan identify South Watt Avenue and the Jackson Road corridor east of South Watt Avenue as a Bus Rapid Transit (BRT)/Hi-bus route. Urban development will generate additional automobile traffic on the corridor while enhanced transit service, bike lanes, and sidewalks will accommodate transit vehicles and bring bicyclists and pedestrians to the corridor. Unless design exceptions are allowed, a conventional state highway generally does not readily accommodate transit riders, bicyclists, and pedestrians well. Notable exceptions are SR 16 through the Town of Esparto and SR 99 through the City of Gridley.

SR 16 through Esparto was designed as a complete street and includes facilities to encourage pedestrian and bicycle use.

The conversion of Jackson Road to an urban arterial is consistent with the City of Sacramento, County of Sacramento, and City of Rancho Cordova General Plans. The Southeast Area Transportation Study (SEAT) and the City of Sacramento General Plan include extending 14th Avenue from Power Inn Road to Jackson Road. The new alignment would help alleviate conditions at the Jackson Road/Folsom Boulevard intersection by providing a new route to Power Inn Road.

The study area is from the Howe Avenue-Power Inn Road/US 50 interchange to Grant Line Road. Figure 1 shows the project study area. A roadway plan line was developed for the segment of Jackson Road from South Watt Avenue to Eagles Nest Road. A number of roadway footprint/cross-section alternatives were evaluated for this section of Jackson Road. This study reviewed the following five alternatives for this segment:

- Alternative 1: Four-lane arterial with exclusive median BRT lanes
- Alternative 2: Six-lane thoroughfare with exclusive median BRT lanes
- Alternative 3: Six-lane thoroughfare with exclusive side running BRT lanes
- Alternative 4: Six-lane thoroughfare with BRT in a parallel corridor
- Alternative 5: Six-lane standard state highway

During the screening process, the project alternatives were reduced from five alternatives to two alternatives. The alternatives carried forward for detailed analysis are:

1. Alternative 2: Six-lane thoroughfare with median BRT lanes
2. Alternative 4: Six-lane thoroughfare with BRT in a parallel corridor (South Watt Avenue to Vineyard Road) and a six-lane thoroughfare with Hi-bus service (Vineyard Road to Sunrise Boulevard)

The section of Jackson Road in the City of Sacramento between Folsom Boulevard and South Watt Avenue is designated as a four-lane divided arterial in the City of Sacramento General Plan. The segment of Jackson Road between South Watt Avenue and Grant Line Road is designated as a six-lane thoroughfare in the County of Sacramento and City of Rancho Cordova General Plans.

A Project Development Team was formed to guide the study. The team consisted of representatives from the following organizations:

- Caltrans
- County of Sacramento
- City of Sacramento
- City of Rancho Cordova
- Sacramento Regional Transit
- Major property owners in the corridor

METHODOLOGY

This study used an updated version of the SACOG SACMET regional travel demand forecasting (TDF) model to develop cumulative (Year 2035) travel demand forecasts for the study area roadways and intersections. The SACMET TDF model includes base year (2005) and cumulative year (2035) versions. The model provides weekday AM peak hour, PM peak hour, and daily traffic volumes.

This study analyzes the following scenarios:

1. Existing Conditions
2. Year 2035 No Project (corridor remains a two-lane State Highway)
3. Year 2035 with Project Alternative 2 Conditions
4. Year 2035 with Project Alternative 4 Conditions

RESULTS

This study includes an operational analysis for the study intersections during both the morning (AM) and evening (PM) weekday peak hours for existing and cumulative conditions. For cumulative conditions, base intersection improvements were assumed as at-grade intersection widening consistent with Sacramento County, City of Sacramento, and City of Rancho Cordova standards. Additional analysis was conducted for the South Watt Avenue corridor to evaluate an urban interchange option.

Intersection Operations

Both project alternative cross-sections improve intersection operations in the Jackson Road corridor when compared to the No Project Condition. However, because the cumulative traffic demands are very high, the following intersections would operate at an unacceptable LOS during one or more of the peak hours with the implementation of either Alternative 2 or Alternative 4:

- US 50 westbound ramps / Howe Avenue – College Town Drive: LOS E during the PM peak hour
- Jackson Road (SR 16) / South Watt Avenue: LOS F during the AM peak hour and PM peak hour (Alternative 4 only)
- Jackson Road (SR 16) / Bradshaw Road: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Sunrise Boulevard: LOS E during the PM peak hour
- Jackson Road (SR 16) / Grant Line Road: LOS E during the AM peak hour
- 14th Avenue / Power Inn Road: LOS E during the AM peak hour
- Folsom Boulevard / South Watt Avenue: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Thornhill Drive: LOS F during the AM and PM peak hours (Alternative 4 only)

Roadway Segment Operations

The following roadway segments operate at unacceptable levels of service with the construction of either Alternative 2 or Alternative 4:

- Jackson Road (SR 16): Folsom Boulevard to Florin-Perkins Road (LOS F)
- Jackson Road (SR 16): Florin-Perkins Road to 14th Avenue (LOS F)
- Jackson Road (SR 16): 14th Avenue to South Watt Avenue (LOS F)
- Jackson Road (SR 16): South Watt Avenue to Bradshaw Road (LOS F)
- Jackson Road (SR 16): Bradshaw Road to Excelsior Road (LOS F)
- Jackson Road (SR 16): Sunrise Boulevard to Grant Line Road (LOS E)
- Howe Avenue-Power Inn Road: US 50 to Folsom Boulevard (LOS F)

- South Watt Avenue: Fair Oaks Boulevard to Folsom Boulevard (LOS F)
- South Watt Avenue: Folsom Boulevard to Kiefer Boulevard (LOS F)
- South Watt Avenue: Kiefer Boulevard to Jackson Road (LOS F)
- Bradshaw Road: US 50 to Old Placerville Road (LOS F)
- Bradshaw Road: Old Placerville Road to Kiefer Boulevard (LOS F)
- Bradshaw Road: Kiefer Boulevard to Jackson Road (LOS F)
- Bradshaw Road: Jackson Road to Elder Creek Road (LOS F)
- Excelsior Road: Jackson Road to Elder Creek Road (LOS F)

Corridor Plan Roadway Cross-Section

Alternative 4 best meets the purpose and need identified in this report, therefore was used to establish the right of way needs for the roadway. Alternative 2 has slightly better intersection operations than Alternative 4, but the BRT potential ridership is better with Alternative 4 and the Alternative 4 cross-section is easier to accommodate in the areas on Jackson Road that are constrained by existing land uses and terrain (mining excavation areas).

South Watt Avenue Corridor

Future planned land use development and changes to the regional transportation network will generate travel patterns that route much of the traffic in the Jackson Road corridor to South Watt Avenue. As a result, a separate detailed traffic analysis of the South Watt Avenue between Jackson Road and US 50 was performed. To accommodate future traffic volumes along this heavily traveled corridor, the County of Sacramento General Plan includes planned grade-separated urban interchanges or high capacity intersections along South Watt Avenue. Urban interchanges or high capacity intersections are proposed for the following locations:

- South Watt Avenue / Folsom Boulevard (Urban interchange)
- South Watt Avenue / Kiefer Boulevard (High capacity intersection)
- South Watt Avenue / Jackson Road (High capacity intersection)

The evaluation of the South Watt Avenue corridor used VISSIM, detailed micro-simulation software, to analyze corridor operations using the following metrics:

- Travel Time
- Average Speed
- Percent Demand Served
- Vehicle Hours of Delay (VHD)

Traffic simulation, such as VISSIM, provides the following advantages compared to typical traffic analysis methods.

- Accounts for system bottlenecks that constrain traffic from downstream locations or back up traffic into upstream locations
- Models transit lines, transit stops, and transit signal preemption
- Models pedestrian and vehicle interaction at pedestrian crossings
- Provides network-wide measures of effectiveness
- Evaluates unusual or unique intersection and interchange configurations more accurately

The grade-separated urban interchange alternative provided significant operational benefits over the at-grade alternative during both the AM and PM peak hours. The grade-separated alternative resulted in decreased travel time and vehicle delay and increased average speed and percent demand served on the corridor.

The operational benefits are more pronounced for southbound South Watt Avenue than northbound South Watt Avenue due to heavier northbound traffic volumes and a bottleneck at the US 50 interchange, particularly during the PM peak hour.

Jackson Road and South Watt Intersection

The processing of the Aspen 1 development proposal in the southwest quadrant of the Jackson Road and South Watt Avenue intersection in the City of Sacramento is necessitating the determination of the intersection footprint and lane configuration to accommodate forecasted traffic demands (year 2035) at LOS E at the South Watt Avenue/Jackson Road intersection. This study evaluated six options for the intersection lane configuration:

- **Alternative 1** - Standard County of Sacramento six-by-six at-grade intersection lane configuration (two left-turn, three through and one right-turn lanes on each approach)
- **Alternative 2** - Grade separated intersection (single point configuration)
- **Alternative 3** - Standard County of Sacramento six-by-six at-grade intersection with a free westbound Jackson Road to northbound South Watt Avenue right-turn lane
- **Alternative 4** - Standard County of Sacramento six-by-six at-grade intersection with a free westbound Jackson Road to northbound South Watt Avenue right-turn lane and triple left-turn lanes on the southbound South Watt Avenue intersection approach with a grade separation between the pedestrian crossing and right-turn lane
- **Alternative 5** - Standard County of Sacramento six-by-six at-grade intersection with dual westbound Jackson Road to northbound South Watt Avenue right-turn lanes and triple left-turn lanes on the southbound South Watt Avenue intersection approach
- **Alternative 6** – A six-by-six at-grade intersection with triple left-turn lanes on the southbound South Watt Avenue approach and a single lane tunnel for the westbound Jackson Road to northbound South Watt Avenue movement.

Results of the intersection operation analysis indicate that the intersection would operate at an acceptable level of service for all of the intersection lane configurations except for the standard Sacramento County six-by-six lane configuration. Weighing factors such as intersection operations, costs of implementation, conflicts with utilities, alternative mode operations, and access to existing and planned land uses at the intersection, either Alternative 5 or Alternative 6 is recommended as the preferred intersection lane configuration. Alterative 5 would require the most right-of-way within the northerly quadrants. Alternative 6 would require the most right-of-way in the southerly quadrants. Thus, it is recommended the right-of-way needed to implement Alternative 6 be reserved in the southwest and southeast quadrants of the intersection, and the right-of-way needed to implement Alternative 5 be reserved in the northwest and northeast quadrants.

New Access Locations

Conversion of existing agricultural/industrial/mining land uses to urban uses will require additional access to Jackson Road. Until the corridor is relinquished all new access requests will need to follow the Caltrans encroachment permit process. This study identified the following major (signalized) access locations:

A. Future Rock Creek Parkway / Jackson Road (Sta: 157.00)
B. Aspen 1 Access / Jackson Road (Sta. 166.50)
C. Realigned Mayhew Road / Jackson Road (Sta. 270.50)
D. Access Road / Jackson Road (Sta. 297.00)
E. Vineyard Road extension / Jackson Road (Sta. 330.25)
F. Access Road / Jackson Road (Sta. 348.80)
G. Access Road / Jackson Road (Sta. 372.70)
H. Access Road / Jackson Road (Sta. 381.50)
I. Excelsior Estates Access Road / Jackson Road (Sta. 452.00)

The proposed access locations are shown on the improvement plans in Appendix A.

Relinquishment Framework

Caltrans and the jurisdictions in the corridor (Sacramento County, City of Sacramento, and City of Rancho Cordova) are exploring a relinquishment concept of SR 16 between Power Inn Road and Grant Line Road. Key aspects of the concept plan are outlined below.

1. Caltrans will relinquish the SR 16 corridor (between Power Inn Road and Grant Line Road) to the jurisdictions.

2. Development of a maintenance agreement between the jurisdictions and Caltrans wherein Caltrans would continue to provide the current levels of maintenance in the corridor. The length of the maintenance agreement and items to be included in the agreement (pavement condition, drainage, traffic signals, stripping, signs, etc.) will be identified.

Relinquishment of the corridor to the jurisdictions will allow the jurisdictions to apply their design standards to development applications without the additional step of coordinating with Caltrans staff, eliminating the need for Caltrans design exceptions. This relinquishment concept would allow for conversion of the corridor from a state highway to a local arterial in the near-term, consistent with the concepts presented in this report.

1. INTRODUCTION

BACKGROUND

The Jackson Highway corridor (State Route 16) provides a vital transportation link within the geographic center of Sacramento County. This corridor connects the Cities of Sacramento and Rancho Cordova with Sacramento and Amador Counties, while providing direct links to the communities of College Glen, Rosemont, and Rancho Murieta. In addition, Jackson Highway intersects major arterials and thoroughfares such as Power Inn Road, South Watt Avenue, Bradshaw Road, Excelsior Road, Sunrise Boulevard and Grant Line Road. Comprised mainly of a two lane roadway, the Jackson Highway corridor has served a diverse and eclectic combination of land uses comprised mainly of active surface mining operations and industrial development, in addition to limited urbanized development primarily located within the City of Sacramento and agricultural and rural residential lands east of Excelsior Road within Sacramento County.

With the completion of the City of Sacramento General Plan in March 2009, and the Sacramento County General Plan in November 2011, it became evident that a comprehensive planning analysis of future conditions for the Jackson Highway corridor was necessary to adequately plan for the future reuse and development of lands along the Jackson Highway corridor, and to ensure that the future roadway would adequately serve the needs of motorists, transit users, bicyclists and pedestrians. With this goal in mind, a Project Development Team (PDT) comprised of representatives from Caltrans, the City of Sacramento, Sacramento County, Rancho Cordova, Sacramento Regional Transit, and major property owners within the corridor was convened in order to accomplish the following goals:

1. Convene a monthly PDT meeting to identify issues and desired outcomes for the Jackson Highway corridor. The study area would reach from US 50/Howe Avenue on the west to Grant Line Road on the east while detailed planning would occur for the area bound by Florin Perkins on the west and Eagles Nest Road on the east.

2. Develop plans for an attractive urban arterial which accommodates vehicles, transit, bicyclists and pedestrians in a context-sensitive, complete streets fashion.

3. Prepare a Corridor Study Report which identifies opportunities and constraints, preferred roadway alternatives and right-of-way requirements, anticipated future access points, phasing, intersection treatments, and desired transit alignments within an ultimate roadway footprint.

This report analyzes existing and future traffic conditions in the State Route 16 (Jackson Road) corridor from the US 50/Howe Avenue–Power Inn Road interchange to Grant Line Road. This section of Jackson Road is expected to convert from a two-lane state highway to a multi-lane urban arterial over the next 10 to 20 years as land uses along the corridor shift from agricultural/aggregate mining to urban uses. Constraints along the corridor, such as existing development and terrain (mining excavation areas), could limit the ability to easily construct a multi-modal transportation facility. The purpose of the study is to define the roadway footprint/cross-section for the segment of Jackson Road between South Watt Avenue and Eagles Nest Road. The road cross-section will accommodate future transportation needs resulting from planned development adjacent to and near the Jackson Road corridor.

In addition to providing increased automobile capacity, the County of Sacramento General Plan Circulation Map and Sacramento Regional Transit (RT) Transit Action Plan identify the corridor as a Bus Rapid Transit (BRT)/Hi-bus route. Urban development will generate additional automobile traffic on the corridor while enhanced transit service, bike lanes, and sidewalks will accommodate transit vehicles and bring bicyclists and pedestrians to the corridor. Unless design exceptions are allowed, a conventional state highway generally does not readily accommodate transit riders, bicyclists, and pedestrians well. Notable exceptions are SR 16 through the Town of

Esparto and SR 99 through the City of Gridley. SR 16 through Esparto was designed as a complete street and includes facilities to encourage pedestrian and bicycle use.

The conversion of Jackson Road to an urban arterial is consistent with the City of Sacramento, County of Sacramento, and City of Rancho Cordova General Plans. The Southeast Area Transportation Study (SEAT) and the City of Sacramento General Plan include extending 14th Street from Power Inn Road to Jackson Road. The new alignment would help alleviate conditions at the Jackson Road/Folsom Boulevard intersection by providing a new route to Power Inn Road. It is expected that as Jackson Road converts from a conventional state highway to an urban arterial that Caltrans will relinquish the facility to the local jurisdictions.

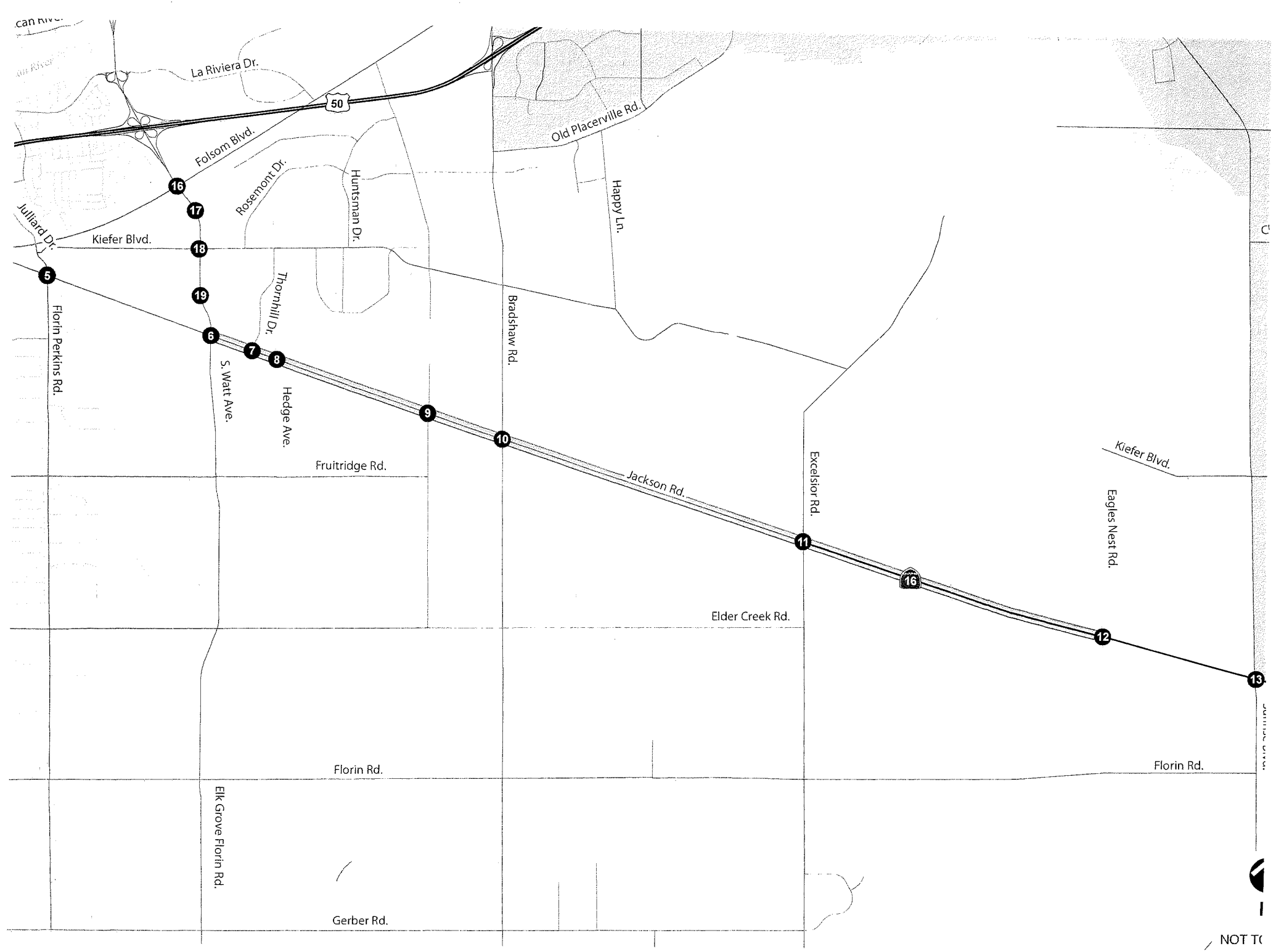
The study area is from the Howe Avenue-Power Inn Road/US 50 interchange to Grant Line Road. Figure 1 shows the project study area. The limits of the plan line for Jackson Road are from South Watt Avenue to Eagles Nest Road.

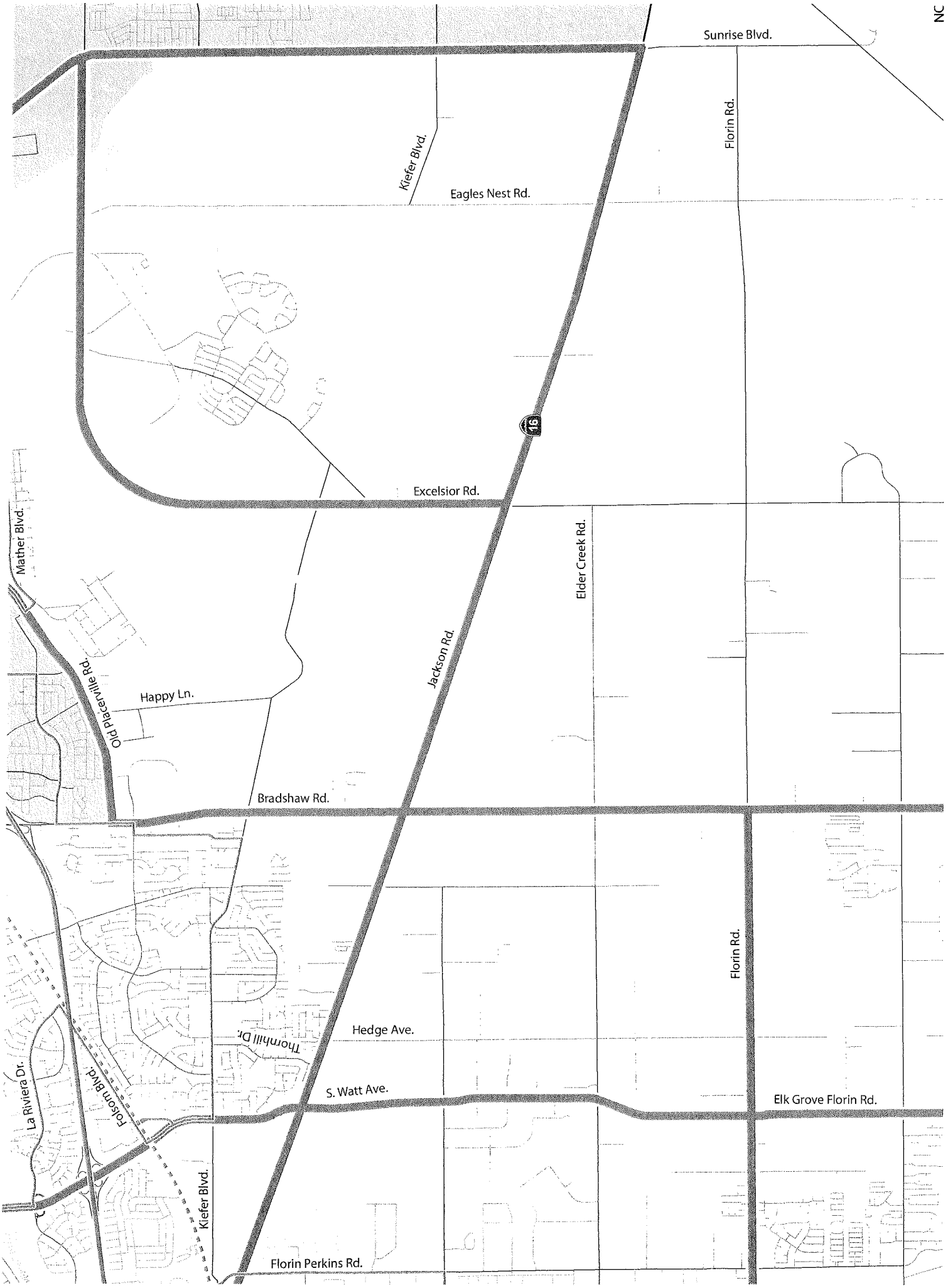
A Project Development Team was formed to guide the study. The team consisted of representatives from the following organizations:

- Caltrans
- County of Sacramento
- City of Sacramento
- City of Rancho Cordova
- Sacramento Regional Transit
- Major property owners in the corridor

Purpose & Need

The purpose of this study is to determine a roadway footprint/cross-section for Jackson Road between South Watt Avenue and Eagles Nest Road to provide additional vehicle capacity needed because of approved and planned development and to accommodate increased transit, bicycle, and pedestrian activity in a complete street design.


La Riviera Dr.
50
Folsom Blvd.
Old Placerville Rd.
Rosemont Dr.
Huntsman Dr.
Happy Ln.
Julliard Dr.
Kiefer Blvd.
Thornhill Dr.
Bradshaw Rd.
Florin Perkins Rd.
S. Watt Ave.
Hedge Ave.
Fruitridge Rd.
Jackson Rd.
Excelsior Rd.
Kiefer Blvd.
Eagles Nest Rd.
Elder Creek Rd.
Florin Rd.
Florin Rd.
Elk Grove Florin Rd.
Gerber Rd.
16
17
18
19
5
6
7
8
9
10
11
16
12
13


NC
Sunrise Blvd.
Kiefer Blvd.
Florin Rd.
Eagles Nest Rd.
16
Excelsior Rd.
Mather Blvd.
Elder Creek Rd.
Jackson Rd.
Old Placerville Rd.
Happy Ln.
Bradshaw Rd.
Florin Rd.
Thornhill Dr.
Hedge Ave.
La Riviera Dr.
Folsom Blvd.
S. Watt Ave.
Elk Grove Florin Rd.
Kiefer Blvd.
Florin Perkins Rd.

Planned and proposed urban development along the Jackson Road corridor will increase vehicular traffic volumes in the corridor and change the current use of the corridor from a regional highway to an urban arterial. The urban land uses will increase pedestrian, bicycle, and transit activity in the corridor. Sacramento County and RT have designated South Watt Avenue and the Jackson Road corridor east of South Watt Avenue for either exclusive Bus Rapid Transit (BRT) lanes or Hi-bus service. This transformation necessitates a plan that establishes a roadway footprint/cross-section for the local municipalities and future development applicants along the corridor. The roadway cross-section should limit impacts to existing development in the corridor including the need for encroachment into mining excavation areas that would require extensive fill.

Without the proposed project, the congestion concerns would increase and substantially degrade the operations of Jackson Road (the project area). Additionally, constructing the corridor to state highway standards will not accommodate planned pedestrian, bicycle, or transit uses.

Project Description

As the land along Jackson Road changes from agricultural/aggregate mining uses to urban uses over the next 10 to 20 years, the role of the corridor will change from a regional highway to an urban arterial. This study evaluates what that roadway facility will look like and ultimately sets a footprint/cross-section for the facility between South Watt Avenue and Eagles Nest Road. The proposed project will develop a complete street that balances the needs of all modes and users while widening the road to accommodate projected traffic demands. The proposed footprint would provide guidance to jurisdictions along the corridor (Sacramento County, City of Sacramento, and City of Rancho Cordova), developers along the corridor, and to Caltrans in requesting appropriate dedication of land. This study also establishes a protocol for relinquishment of the corridor from Caltrans to the local jurisdictions.

Pedestrians and Bicycles

Sacramento County, City of Sacramento, and City of Rancho Cordova desire to provide Class II bicycle lanes and sidewalks along Jackson Road for bicycles and pedestrians traveling east-west in the area.

REPORT OUTLINE

The remainder of this report is divided into the following six chapters:

- Chapter 2 – Traffic Analysis Methodology
- Chapter 3 – Existing Conditions Analysis
- Chapter 4 – Project Description
- Chapter 5 – 2035 Conditions Analysis
- Chapter 6 – Corridor Plan Line Design
- Chapter 7 – Relinquishment Framework

Following this introduction, Chapter 2 describes the analysis methodology and assumptions used in the travel demand forecasts and the traffic operations analysis. Chapter 3 covers the analysis of existing conditions. The fourth chapter describes the project alternatives, lists the planned projects in the study area, and outlines the scenarios analyzed under future conditions. Chapter 5 presents the traffic analysis results of the project scenarios under 2035 conditions. Chapter 6 presents the methodology used to develop the corridor "plan line" design. Chapter 7 describes a framework for relinquishing the corridor from Caltrans to the local jurisdictions.

2. TRAFFIC ANALYSIS METHODOLOGY

TRAVEL DEMAND FORECASTS

This study used an updated version the SACOG SACMET TDF model to develop cumulative (year 2035) travel demand forecasts for the study area roadways. The SACMET model includes base year (2005) and cumulative year (2035) versions. The model provided weekday AM peak hour, PM peak hour, and daily traffic volumes forecasts.

Land Use Assumptions

The County of Sacramento General Plan version of the SACMET TDF model was used as the base model platform. The model was updated to include greater detail in the Jackson Road corridor (the area bounded by US 50, Power Inn Road, Elder Creek Road, and Grant Line Road). Detail was added to the traffic analysis zone (TAZ) system and roadway network for the study area such that the model accurately reflected existing and planned land use and roadway network conditions. To accomplish this, a sub area validation of the base year model was conducted to ensure that the model volumes sufficiently replicate existing traffic conditions. The cumulative year model was updated so that it included land uses that are consistent with the City of Sacramento General Plan and City of Rancho Cordova General Plan and included land uses for proposed development plans in the corridor (West Jackson Highway Master Plan, New Brighton-Aspen 1, Excelsior Estates, Arboretum, Cordova Hills, and Newbridge).

Roadway Assumptions

To ensure that the model accounted for all planned circulation improvements in the study area, the cumulative year model was updated to include planned and funded improvements to the roadway network in the project's vicinity. Table 1 lists the major roadway improvements that were included as Tier 1 projects (funded) in the SACOG 2008 Metropolitan Transportation Plan (Metropolitan Transportation Plan for 2035). Figure 3 presents the assumed roadway improvements. According to the MTP, the widening of Jackson Road to a four-lane facility from Power Inn Road to Grant Line Road will be completed by 2025. Development in the corridor and the region could change the timeframe for completion of widening of the road to four lanes.

The travel demand forecasts included AM and PM peak hour traffic volumes for the study intersections and daily traffic volumes for roadway segments.

Forecast Development

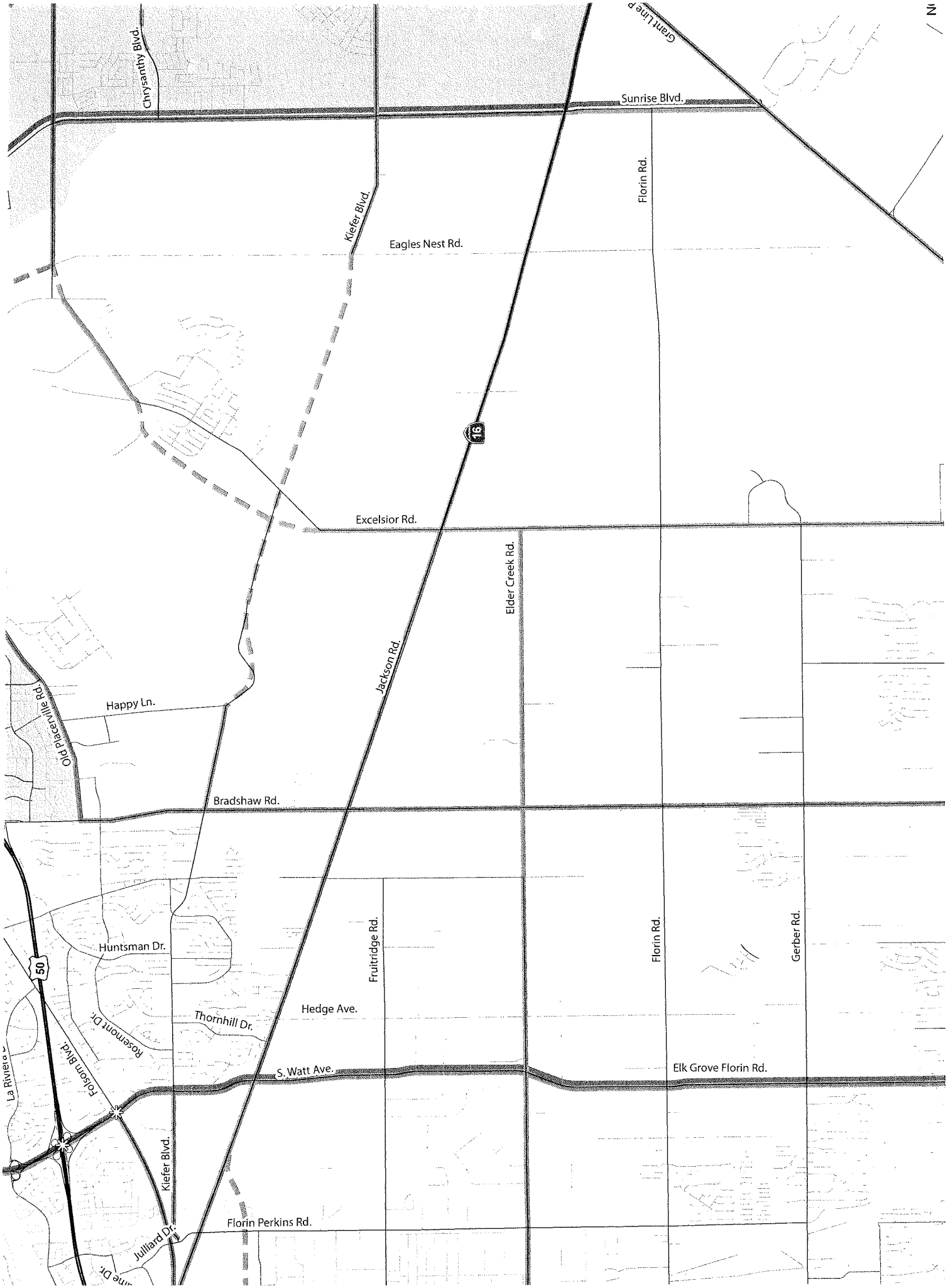
Cumulative traffic forecasts were prepared for the following alternatives:

- **No Project Alternative** – This alternative assumes no improvements to the Jackson Road corridor, but would include access from new developments.
- **Jackson Road as a six-lane urban arterial with median running BRT** – This alternative assumes the construction of a six-lane urban arterial (sidewalks, landscaped median, and bike lanes) and includes an exclusive BRT facility in the median of the road from South Watt Avenue to Sunrise Boulevard.
- **Jackson Road as a six-lane urban arterial with BRT in a parallel corridor**– This alternative assumes the construction of a six-lane urban arterial (sidewalks, landscaped median, and bike lanes) from South Watt Avenue to an extension of Vineyard Road. BRT would run on a parallel facility (Rock Creek Parkway within the West Jackson Highway Master Plan). From Vineyard Road to Sunrise Boulevard, Jackson Road would be constructed as a six-lane urban arterial (sidewalks, landscaped median, and bike lanes) with high capacity transit (Hi-bus service) in either the median traffic lane or the curb traffic lane.

TABLE 1:
STUDY AREA PLANNED MAJOR ROADWAY IMPROVEMENTS BY YEAR 2035 (MTP TIER 1 PROJECTS)

Roadway	Segment	Improvement	Year
Douglas Road	Excelsior Rd. to Sunrise Blvd.	Widen to four-lanes	2006
Douglas Road	Sunrise Blvd. to Grant Line Rd.	Widen to six-lanes	2007
Eagles Nest Road	Kiefer Blvd. to Douglas Rd.	Widen to four-lanes	2018
Florin-Perkins Road	Folsom Blvd. to Fruitridge Rd.	Widen to six-lanes	2020
Fruitridge Road	Florin-Perkins Rd. to South Watt Ave.	Widen to six-lanes	2017
Grant Line Road	Calvine Rd. to Sloughhouse Rd.	Widen to four-lanes	2016
Grant Line Road	Sloughhouse Rd. to Sunrise Blvd.	Widen to four-lanes	2008
Grant Line Road	Sunrise Blvd. to SR 16	Widen to four-lanes	2035
Grant Line Road	SR 16 to White Rock Rd.	Widen to four-lanes	2022
Kiefer Boulevard	Bradshaw Rd. to Sunrise Blvd.	Widen/construct to four-lanes	2025
Power Inn Road	Fruitridge Rd. to 14th St.	Widen to six-lanes	2015
Jackson Road (SR 16)	South Watt Ave. to Sunrise Blvd.	Widen to four-lanes	2025
Jackson Road (SR 16)	South Watt Ave. to Excelsior Rd.	Widen to six-lanes	2033
Jackson Road (SR 16)	Sunrise Blvd. to Grant Line Rd.	Widen to four-lanes	2016
14th Street	Power Inn Rd. to South Watt Ave.	Construct four-lane arterial	2015
South Watt Avenue	Calvine Rd. to SR 16	Widen to six-lanes	2025
Bradshaw Road	Calvine Rd. to Old Placerville Rd.	Widen to six-lanes	2026
Sunrise Boulevard	Douglas Rd. to Grant Line Rd.	Widen to six-lanes	2011
US 50	Sunrise Blvd. to Watt Ave.	Add HOV lanes	2013
US 50	Watt Ave. to Downtown Sacramento	Add HOV lanes	2020
Americanos Road	Chrysanthy Blvd. to Douglas Rd.	New four-lane road	2011
Americanos Road	Kiefer Blvd. to Chrysanthy Blvd.	New Four-lane road	2020
Americanos Road	Douglas Rd. to White Rock Rd.	New four-lane road	2021
Chrysanthy Boulevard	Sunrise Blvd. to Grant Line Rd.	New four-lane road	2017
Elder Creek Road	Power Inn Rd. to Florin-Perkins Rd.	Widen to four-lanes	2019
Elder Creek Road	Florin-Perkins Rd. to South Watt Ave.	Widen to four-lanes	2023
Elder Creek Road	South Watt Ave. to Excelsior Rd.	Widen to four-lanes	2035
Excelsior Road	Kiefer Blvd./Douglas Rd. to SR 16	New four-lane road	2018
Excelsior Road	SR 16 to Calvine Rd.	Widen to four-lanes	2025
Kiefer Boulevard	Sunrise Blvd. to Grant Line Rd.	New four-lane road	2035
Kiefer Boulevard	Florin-Perkins Rd. to South Watt Ave.	Widen to four-lanes	2019
Old Placerville Road	Bradshaw Rd. to Mather Blvd.	Widen to six-lanes	2028
Rancho Cordova Parkway	Grant Line Rd. to White Rock Rd.	New four to six-lane road	2020
Zinfandel Drive	Douglas Rd. to Current Terminus	New six-lane road	2011

Source: SACOG 2008 MTP (Metropolitan Transportation Plan for 2035)


Chrysanthy Blvd.
Grant Line R
Sunrise Blvd.
Florin Rd.
Kiefer Blvd.
Eagles Nest Rd.
Excelsior Rd.
Elder Creek Rd.
Jackson Rd.
Old Placerville Rd.
Happy Ln.
Bradshaw Rd.
Huntsman Dr.
Fruitridge Rd.
Florin Rd.
Gerber Rd.
Hedge Ave.
Thornhill Dr.
Rosemont Dr.
Folsom Blvd.
S. Watt Ave.
Elk Grove Florin Rd.
La Riviera
Kiefer Blvd.
Florin Perkins Rd.
Julliard Dr.
50
99

The process of developing forecasts from the SACMET travel demand model followed a series of commonly-used quantitative steps, in which the amount of growth projected by the model was added to the existing counts to estimate future year conditions. The specific steps used to develop traffic forecasts from the model are presented below:

- **Step 1** - The model was executed with the appropriate roadway network assumptions and 2035 land use assumptions to determine the "raw" (i.e., unadjusted) peak hour demand forecasts for the study intersections.
- **Step 2** - The cumulative year forecasts were developed using the "difference method" to account for model deviation according to the following formula:

  Cumulative Year Forecast =
  (Cumulative Year Model Volume – Base Year Model Volume) + Existing Count

- **Step 3** – The Cumulative Year forecasts were balanced where appropriate.

The City of Sacramento, County of Sacramento, City of Rancho Cordova, and Caltrans reviewed and approved the travel demand forecasts prior to conducting any operational analysis.

TRAFFIC OPERATIONS ANALYSIS

Intersections

The traffic operations analysis addressed intersection operations throughout the Jackson Road study corridor. Key assumptions related to this analysis are listed below:

- All analyses were conducted using procedures and methodologies that are consistent with the *Highway Capacity Manual* (Transportation Research Board, 2000). The analysis used the Synchro software program to apply these methodologies.
- Traffic signal timing data was acquired from the Sacramento County Department of Transportation and City of Sacramento Department of Transportation.
- Existing heavy vehicle percentages were used for the Existing Conditions analysis, which generally range between three to eight percent for through movements on Jackson Road during the AM peak hour, and between two to six percent during the PM peak hour. For future conditions analysis, an AM peak hour heavy vehicle percentage of three percent was assumed for mainline Jackson Road. For the PM peak hour, a two percent factor was used. These assumptions are based on projected development in the study area and buildout of the proposed Sacramento County General Plan land uses. Other studies have identified higher heavy vehicle percentages in the range six to nine percent along the Jackson Road study corridor under cumulative conditions; however, these studies assumed the continuation of aggregate mining operations in the area. In contrast, this study evaluates the potential conversion of the existing state highway to an urban arterial, which would be necessitated by the conversion of aggregate operations along the corridor to urban land uses. Therefore, this study assumes that the majority of the existing mining operations along the study portion of the corridor will not exist under cumulative conditions, and that these uses are replaced by urban development. This conversion would result in a reduction in the percentage of heavy vehicles along the corridor relative to existing conditions. The cumulative heavy vehicle percentages of two to three percent used for this study are in line with existing measured heavy vehicle percentages on arterial roadways in developed areas within Sacramento County.

The analysis methodology described above was used to determine AM and PM peak-hour traffic operations at the study intersections. The analysis results are presented using a descriptive term known as level of service (LOS). LOS is a measure of traffic operating conditions, which varies from LOS A (the least amount of delay) to LOS F (the greatest amount of delay). LOS E represents "at-capacity" operations.

Table 2 describes the LOS thresholds from the *HCM 2000* for intersections. The intersection LOS thresholds differ between signalized and stop-controlled intersections. The LOS is determined by the average control delay on an intersection-wide basis for signalized and all-way stop-controlled intersections and on the movement with the highest delay for side-street stop-controlled intersections.

TABLE 2:
INTERSECTION LEVEL OF SERVICE THRESHOLDS

Level of Service	Description	Average Control Delay[1]	
		Signal	Stop Control
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	< 10	< 10
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10 to 20	> 10 to 15
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20 to 35	> 15 to 25
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35 to 55	> 25 to 35
E	Operations with high delay values indicating poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55 to 80	> 35 to 50
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80	> 50

Notes: Measured in seconds per vehicle
Source: Highway Capacity Manual (Transportation Research Board, 2000)

Roadway Segments

Roadway operations were analyzed with level of service (LOS) as the primary measure of performance. Roadway segments were analyzed using capacities consistent with those presented in the County of Sacramento General Plan EIR. Table 3 lists the LOS thresholds with respect to both facility type and number of lanes.

TABLE 3:
LEVEL OF SERVICE THRESHOLDS FOR STUDY ROADWAY SEGMENTS

Facility Type	Maximum Daily Volume				
	LOS A	LOS B	LOS C	LOS D	LOS E
2-Lane Arterial – High Access Control	12,000	14,000	16,000	18,000	20,000
4-Lane Arterial – High Access Control	24,000	28,000	32,000	36,000	40,000
6-Lane Arterial – High Access Control	36,000	42,000	48,000	54,000	60,000
2-Lane Arterial – Medium Access Control	10,800	12,600	14,400	16,200	18,000
4-Lane Arterial – Medium Access Control	21,600	25,200	28,800	32,400	36,000
6-Lane Arterial – Medium Access Control	32,400	37,800	43,200	48,600	54,000
2-Lane Arterial – Low Access Control	9,000	10,500	12,000	13,500	15,000
4-Lane Arterial – Low Access Control	18,000	21,000	24,000	27,000	30,000
6-Lane Arterial – Low Access Control	27,000	31,500	36,000	40,500	45,000
2-Lane Rural Highway	1,800	3,600	5,900	10,100	17,000

Source: County of Sacramento General Plan, 1993

ANALYSIS EVALUATION CRITERIA

As documented in the City of Sacramento General Plan (Policy M1.2.2), the City has flexible LOS standards that range from LOS D outside of multimodal districts and corridors, to LOS F within the Central City, along commercial corridors, and in transit districts. Due to the classification of land uses within the City's portion of the study area, LOS F is the minimum acceptable LOS for intersections along Folsom Boulevard between 34th Street and South Watt Avenue and LOS D is the minimum acceptable LOS for intersections along Howe Avenue/Power Inn Road.

The County of Sacramento General Plan calls for LOS D in rural locations (outside the Urban Services Boundary (USB)) and LOS E within the USB. All of the study intersections and roadway segments are within the USB. Therefore, LOS E is considered acceptable for intersections and roadways in Sacramento County for this study. The Sacramento County General Plan has language that would allow LOS F for transit/mixed use corridors. The Jackson Road corridor east of South Watt Avenue would fall into that category due to its designation as a Hi-Bus Corridor

According to the City of Rancho Cordova General Plan, LOS D is considered the minimum LOS for study intersections and roadway segments within the City of Rancho Cordova.

The Transportation Concept Report for State Route 16 identifies LOS E as the acceptable LOS.

ANALYSIS SCENARIOS

The following scenarios were analyzed for the traffic report:

1. Existing Conditions
2. Cumulative No Project (corridor remains a two-lane State Highway)
3. Cumulative with Project Alternative 2 Conditions
4. Cumulative with Project Alternative 4 Conditions

3. EXISTING CONDITIONS ANALYSIS

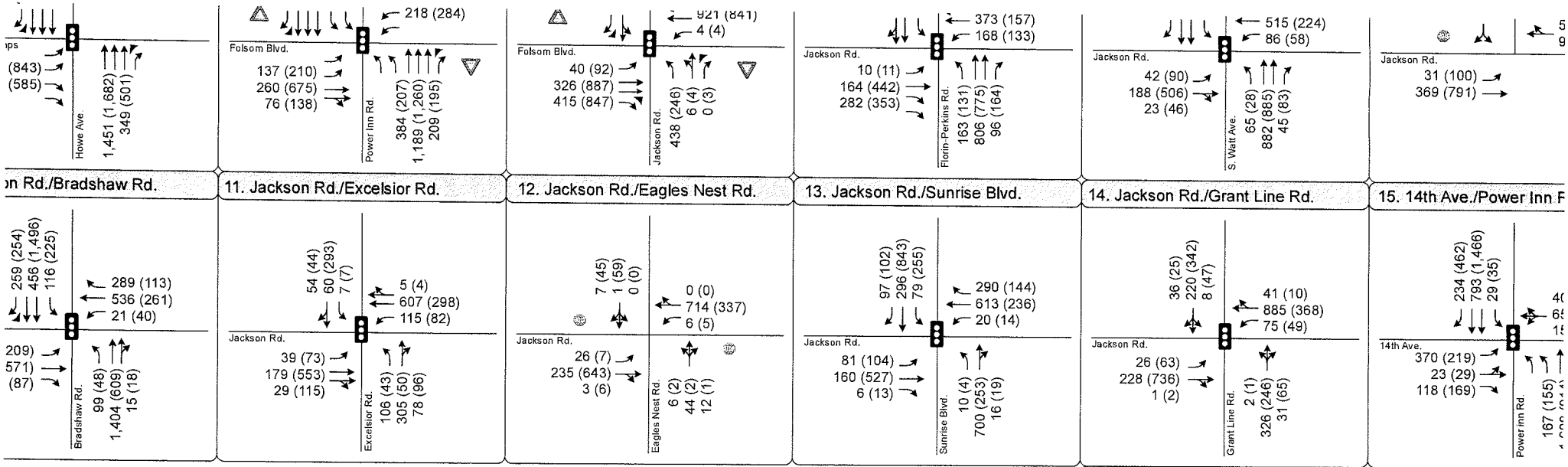
STUDY AREA

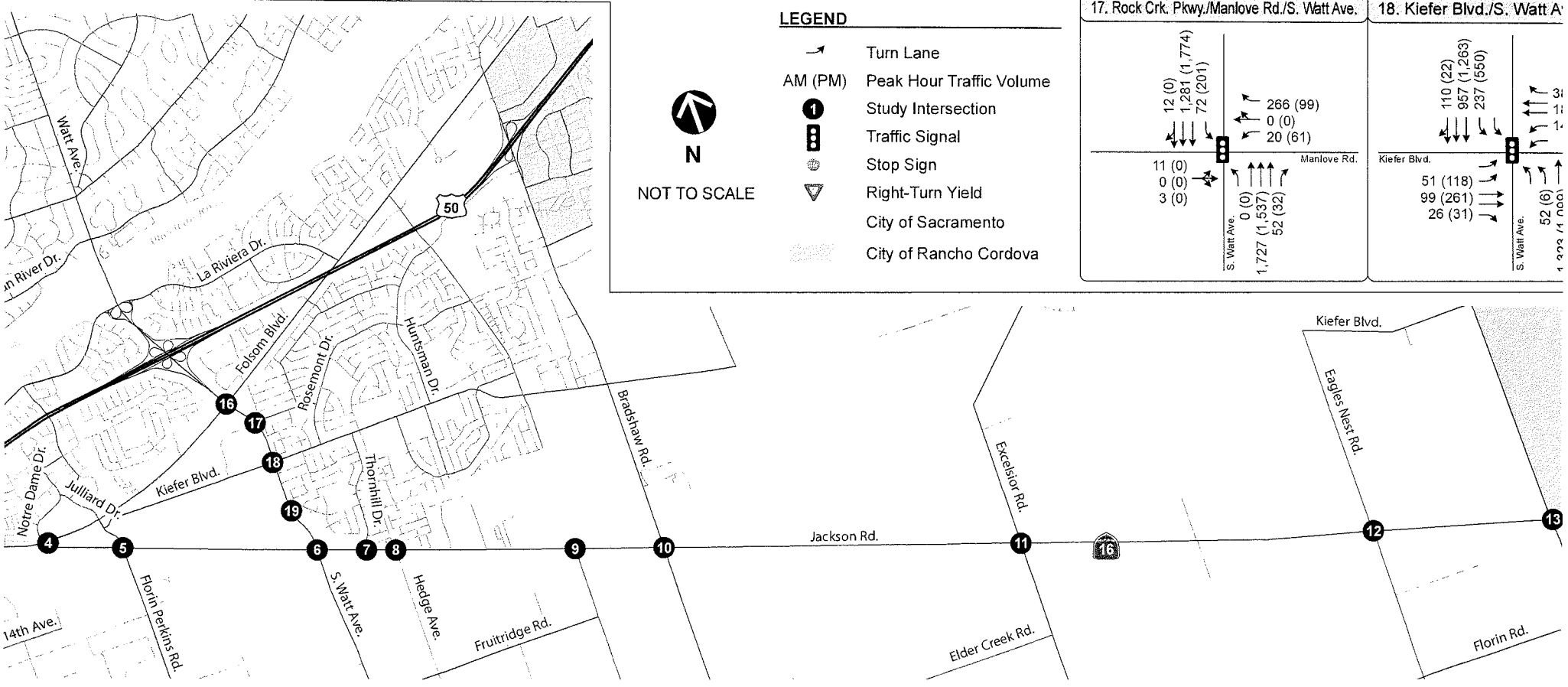
The study area for the traffic analysis is State Route 16 (Jackson Road) from the US 50/Howe Avenue-Power Inn Road interchange to Grant Line Road and South Watt Avenue between Folsom Boulevard and Jackson Road. The study area, shown in Figure 1, includes the following study intersections:

1. US 50 westbound diagonal off-ramp / College Town Drive – Howe Avenue
2. US 50 eastbound diagonal off-ramp / Howe Avenue – Power Inn Road
3. Folsom Boulevard / Howe Avenue – Power Inn Road
4. Folsom Boulevard / Jackson Road – Notre Dame Drive
5. Jackson Road / Florin Perkins Road
6. Jackson Road / South Watt Avenue
7. Jackson Road / Thornhill Drive
8. Jackson Road / Hedge Avenue
9. Jackson Road / Mayhew Road
10. Jackson Road / Bradshaw Road
11. Jackson Road / Excelsior Road
12. Jackson Road / Eagles Nest Road
13. Jackson Road / Sunrise Boulevard
14. Jackson Road / Grant Line Road
15. 14th Avenue / Power Inn Road
16. South Watt Avenue / Folsom Boulevard
17. South Watt Avenue / Manlove Road
18. South Watt Avenue / Kiefer Boulevard
19. South Watt Avenue / Canberra Drive

Between US 50 at the Howe Avenue interchange and Notre Dame Drive, SR 16 is routed along Howe Avenue to Folsom Boulevard and is a multi-lane urban arterial. South and east of the Folsom Boulevard/Notre Dame-Jackson Road intersection, SR 16 becomes a two-lane highway. Current land uses along the corridor vary, but are dominated by industrial and mining related uses with some residential on the north side of the road between South Watt Avenue and Mayhew Road.

Traffic counts were collected during the morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak periods at all study intersections. Where appropriate, the analysis balanced the raw turning movement volumes in the study area. The existing balanced weekday AM, and weekday PM peak hour intersection counts are presented in Figure 4. Figure 4 also shows the existing intersection geometrics and traffic control devices at the study intersections.


Howe Ave.
(843)
(585)
1,451 (1,682)
349 (501)
Folsom Blvd.
218 (284)
137 (210)
260 (675)
76 (138)
Power Inn Rd.
384 (207)
1,189 (1,260)
209 (195)
Folsom Blvd.
921 (841)
4 (4)
40 (92)
326 (887)
415 (847)
Jackson Rd.
438 (246)
6 (4)
0 (3)
Jackson Rd.
373 (157)
168 (133)
10 (11)
164 (442)
282 (353)
Florin-Perkins Rd.
163 (131)
806 (775)
96 (164)
Jackson Rd.
515 (224)
86 (58)
42 (90)
188 (506)
23 (46)
S. Watt Ave.
65 (28)
882 (885)
45 (83)
Jackson Rd.
31 (100)
369 (791)
n Rd./Bradshaw Rd.
259 (254)
456 (1,496)
116 (225)
289 (113)
536 (261)
21 (40)
209)
571)
(87)
Bradshaw Rd.
99 (48)
1,404 (609)
15 (18)
11. Jackson Rd./Excelsior Rd.
54 (44)
60 (293)
7 (7)
5 (4)
607 (298)
115 (82)
Jackson Rd.
39 (73)
179 (553)
29 (115)
Excelsior Rd.
106 (43)
305 (50)
78 (96)
12. Jackson Rd./Eagles Nest Rd.
7 (45)
1 (59)
0 (0)
0 (0)
714 (337)
6 (5)
Jackson Rd.
26 (7)
235 (643)
3 (6)
Eagles Nest Rd.
6 (2)
44 (2)
12 (1)
13. Jackson Rd./Sunrise Blvd.
97 (102)
296 (843)
79 (255)
290 (144)
613 (236)
20 (14)
Jackson Rd.
81 (104)
160 (527)
6 (13)
Sunrise Blvd.
10 (4)
700 (253)
16 (19)
14. Jackson Rd./Grant Line Rd.
36 (25)
220 (342)
8 (47)
41 (10)
885 (368)
75 (49)
Jackson Rd.
26 (63)
228 (736)
1 (2)
Grant Line Rd.
2 (1)
326 (246)
31 (65)
15. 14th Ave./Power Inn F
234 (462)
793 (1,466)
29 (35)
14th Ave.
370 (219)
23 (29)
118 (169)
Power Inn Rd.
167 (155)
17. Rock Crk. Pkwy./Manlove Rd./S. Watt Ave.
12 (0)
1,281 (1,774)
72 (201)
266 (99)
0 (0)
20 (61)
Manlove Rd.
11 (0)
0 (0)
3 (0)
S. Watt Ave.
0 (0)
1,727 (1,537)
52 (32)
18. Kiefer Blvd./S. Watt A
110 (22)
957 (1,263)
237 (550)
Kiefer Blvd.
51 (118)
99 (261)
26 (31)
S. Watt Ave.
52 (6)
LEGEND
Turn Lane
AM (PM) Peak Hour Traffic Volume
Study Intersection
Traffic Signal
Stop Sign
Right-Turn Yield
City of Sacramento
City of Rancho Cordova
N
NOT TO SCALE


Watt Ave.
La Riviera Dr.
50
Folsom Blvd.
Rosemont Dr.
Huntsman Dr.
Bradshaw Rd.
Kiefer Blvd.
Julliard Dr.
Notre Dame Dr.
Thornhill Dr.
Jackson Rd.
Excelsior Rd.
Eagles Nest Rd.
Florin Perkins Rd.
S. Watt Ave.
Hedge Ave.
Fruitridge Rd.
Elder Creek Rd.
Florin Rd.
14th Ave.
16
4
5
6
7
8
9
10
11
12
13
16
17
18
19

INTERSECTION OPERATIONS

The results of the LOS analysis at the study intersections are presented in Table 4.

TABLE 4:
EXISTING CONDITIONS – PEAK HOUR INTERSECTION OPERATIONS

Intersection	Traffic Control	Peak Hour	Delay[1]	LOS[2]
1. US 50 WB Off-Ramp / College Town Drive / Howe Avenue	Signal	AM	24	C
		PM	**59**	**E**
2. US 50 EB Off-Ramp / Howe Avenue	Signal	AM	13	B
		PM	13	B
3. Folsom Boulevard / Howe Avenue/Power Inn Road	Signal	AM	42	D
		PM	56	E
4. Folsom Boulevard / Jackson Road/Notre Dame Drive	Signal	AM	24	C
		PM	20	B
5. Jackson Road (SR 16) / Florin Perkins Road	Signal	AM	24	C
		PM	36	D
6. Jackson Road (SR 16) / South Watt Avenue	Signal	AM	**81**	**F**
		PM	**100**	**F**
7. Jackson Road (SR 16) / Thornhill Drive	Side Street Stop	AM	**>150**	**F**
		PM	**63**	**F**
8. Jackson Road (SR 16) / Hedge Avenue	Signal	AM	37	D
		PM	31	C
9. Jackson Road (SR 16) / Mayhew Road	Side Street Stop	AM	38	E
		PM	**61**	**F**
10. Jackson Road (SR 16) / Bradshaw Road	Signal	AM	**108**	**F**
		PM	56	E
11. Jackson Road (SR 16) / Excelsior Road	Signal	AM	22	C
		PM	23	C
12. Jackson Road (SR 16) / Eagles Nest Road	Side Street Stop	AM	39	E
		PM	28	D
13. Jackson Road (SR 16) / Sunrise Boulevard	Signal	AM	**80**	**F**
		PM	**55**	**E**
14. Jackson Road (SR 16) / Grant Line Road	Signal	AM	**127**	**F**
		PM	**108**	**F**
15. 14th Avenue / Power Inn Road	Signal	AM	36	D
		PM	32	C
16. Folsom Boulevard / South Watt Avenue	Signal	AM	**102**	**F**
		PM	**150**	**F**
17. Manlove Road / South Watt Avenue	Signal	AM	17	B
		PM	15	B
18. Kiefer Boulevard / South Watt Avenue	Signal	AM	36	D
		PM	46	D
19. Canberra Drive / South Watt Avenue	Signal	AM	10	B
		PM	10	A

Notes: [1]For signalized intersections, the overall average intersection control delay is reported in seconds per vehicle. For side-street stop control, the average control delay for the worst movement is reported in seconds per vehicle.

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

BOLD text indicates the intersection operates at an unacceptable LOS based on the presiding jurisdiction's LOS policy.

Source: Fehr & Peers, 2012

The results indicate that the following intersections are operating at an unacceptable level of service under existing conditions:

- US 50 westbound off-ramp / College Town Drive – Howe Avenue (PM peak hour)
- Jackson Road / South Watt Avenue (AM and PM peak hours)
- Jackson Road / Thornhill Drive (AM and PM peak hours)
- Jackson Road / Mayhew Road (PM peak hour)
- Jackson Road / Bradshaw Road (AM peak hour)
- Jackson Road / Sunrise Boulevard (AM and PM peak hours)
- Jackson Road / Grant Line Road (AM and PM peak hours)
- Folsom Boulevard / South Watt Avenue (AM and PM peak hours)

ROADWAY SEGMENT OPERATIONS

The existing daily traffic volumes, number of lanes, volume to capacity ratio, and level of service for each roadway segment are presented in Table 5. The following roadway segments are operating at an unacceptable level of service under existing conditions:

- Jackson Road (SR 16): Florin-Perkins Road to South Watt Avenue (LOS E)
- Jackson Road (SR 16): Sunrise Boulevard to Grant Line Road (LOS E)
- Howe Avenue-Power Inn Road: US 50 to Folsom Boulevard (LOS F)
- Florin-Perkins Road: Jackson Road to Fruitridge Road (LOS E)
- South Watt Avenue: Fair Oaks Boulevard to Folsom Boulevard (LOS F)
- South Watt Avenue: Jackson Road to Fruitridge Road (LOS F)
- Bradshaw Road: US 50 to Old Placerville Road (LOS F)
- Bradshaw Road: Old Placerville Road to Kiefer Boulevard (LOS F)

TABLE 5:
EXISTING CONDITIONS – ROADWAY SEGMENT DAILY VOLUMES AND OPERATIONS

Roadway	Segment		ADT	Number of Lanes	V/C Ratio	LOS
	From	To				
1. Jackson Road (SR 16)	Folsom Boulevard	Florin Perkins Road	13,430	2	0.75	C
2. Jackson Road (SR 16)	Florin Perkins Road	South Watt Avenue	10,340	2	0.61	**E**
3. Jackson Road (SR 16)	South Watt Avenue	Bradshaw Road	16,240	2	0.96	E
4. Jackson Road (SR 16)	Bradshaw Road	Excelsior Road	14,230	2	0.84	E
5. Jackson Road (SR 16)	Excelsior Road	Sunrise Boulevard	11,750	2	0.69	E
6. Jackson Road (SR 16)	Sunrise Boulevard	Grant Line Road	14,350	2	0.84	**E**
7. Folsom Boulevard (SR 16)	Power Inn Road	Jackson Road	41,310	4	1.15	F
8. Folsom Boulevard	Jackson Road (SR 16)	South Watt Avenue	18,580	4	0.52	A
9. Folsom Boulevard	South Watt Avenue	La Riviera Drive	20,040	4	0.56	A
10. Folsom Boulevard	La Riviera Drive	Mayhew Road	22,390	4	0.62	B
11. Howe Avenue (SR 16)	US 50	Folsom Boulevard	60,160	6	1.00	**F**
12. Power Inn Road	Folsom Boulevard	14th Avenue	36,790	6	0.68	B
13. Florin Perkins Road	Folsom Boulevard	Jackson Road (SR 16)	12,420	4	0.35	A
14. Florin Perkins Road	Jackson Road (SR 16)	Fruitridge Road	35,410	4	0.98	**E**
15. South Watt Avenue	Fair Oaks Boulevard	Folsom Boulevard	99,940	6	1.67	**F**
16. South Watt Avenue	Folsom Boulevard	Kiefer Boulevard	42,890	6	0.79	C
17. South Watt Avenue	Kiefer Boulevard	Jackson Road (SR 16)	29,190	5	0.65	B
18. South Watt Avenue	Jackson Road (SR 16)	Fruitridge Road	23,740	2	1.32	**F**
19. Bradshaw Road	US 50	Old Placerville Road	62,280	6	1.15	**F**
20. Bradshaw Road	Old Placerville Road	Kiefer Boulevard	42,490	4	1.18	**F**
21. Bradshaw Road	Kiefer Boulevard	Jackson Road (SR 16)	31,420	4	0.87	D
22. Bradshaw Road	Jackson Road (SR 16)	Elder Creek Road	24,000	4	0.67	B
23. Excelsior Road	Kiefer Boulevard	Jackson Road (SR 16)	5,250	2	0.31	C
24. Excelsior Road	Jackson Road (SR 16)	Elder Creek Road	5,400	2	0.32	C

Source: Fehr & Peers, 2012

4. PROJECT DESCRIPTION

NO PROJECT ALTERNATIVE

For the No Project alternative, no improvements would be implemented through the corridor and Jackson Road would remain a two-lane state highway.

PROPOSED PROJECT ALTERNATIVES

As the land along Jackson Road changes from agricultural/aggregate mining uses to urban uses over the next 10 to 20 years, the role of the corridor will change from a regional highway to an urban arterial. This study evaluates what that facility will look like and ultimately sets a footprint/cross-section for the facility. The goal is to develop Jackson Road as a complete street that balances the needs of all modes and users. The footprint will provide guidance to jurisdictions along the corridor (Sacramento County, City of Sacramento, and City of Rancho Cordova), developers along the corridor, and to Caltrans in requesting appropriate land dedication. All alternatives will have crosswalks, pedestrian countdown heads, and bicycle detection at intersections controlled by traffic signals.

A number of roadway footprint/cross-section alternatives were evaluated for the section of Jackson Road between South Watt Avenue and Sunrise Boulevard. Descriptions of the five alternatives reviewed in this study are:

- **Alternative 1: Four-lane arterial with median BRT lanes –** The alternative would construct a four-lane arterial with two exclusive BRT lanes in the median between South Watt Avenue and Sunrise Boulevard. The roadway would include Class II bike lanes and bifurcated sidewalks. Because of potential conflicts between buses in the median BRT lanes and left-turn vehicles, uncontrolled left-turns would have to be prohibited onto and off Jackson Road. Left-turns would be limited to intersections controlled by a traffic signal. This alternative includes the restriction of left-turns from Jackson Road at minor arterial intersections (Mayhew Road-Fruitridge Road, Excelsior Road, and Eagles Nest Road). Vehicles wishing to make a left-turn onto these roadways from Jackson Road would need to make a right-turn, travel through a roundabout, and then cross Jackson Road as a through movement on the minor arterial. Left-turns would continue to be allowed on Jackson Road at South Watt Avenue, Hedge Avenue, Bradshaw Road, Sunrise Boulevard, and Grant Line Road.
- **Alternative 2: Six-lane thoroughfare with median BRT lanes –** Jackson Road would be constructed as a six-lane thoroughfare with two exclusive BRT lanes in the median between South Watt Avenue and Sunrise Boulevard. The roadway would include Class II bike lanes and bifurcated sidewalks. Because of potential conflicts between buses in the median BRT lanes and left-turning vehicles, uncontrolled left-turns would have to be prohibited onto and off Jackson Road. Left-turns would be limited to intersections controlled by a traffic signal.
- **Alternative 3: Six-lane thoroughfare with side running BRT lanes -** The alternative would construct a six-lane thoroughfare with two exclusive BRT lanes constructed on either the north or south side of Jackson Road between South Watt Avenue and Sunrise Boulevard. The roadway would include Class II bike lanes and bifurcated sidewalks. Because of potential conflicts between buses in the BRT lanes and right-turning vehicles on the side of the road with the exclusive BRT lanes, uncontrolled right-turns would have to be prohibited onto and off of Jackson Road. In this alternative, the median can be landscaped.
- **Alternative 4: Six-lane thoroughfare with BRT in a parallel corridor** - Jackson Road would be constructed as a standard County of Sacramento six-lane thoroughfare from South Watt Avenue to Grant Line Road. The roadway would include Class II bike lanes, bifurcated sidewalks, and a

landscaped median. BRT service would be shifted to a parallel corridor (future Rock Creek Parkway within the West Jackson Highway Master Plan) from South Watt Avenue to an extension of Vineyard Road. Between Vineyard Road and Sunrise Boulevard, high capacity Hi-bus transit service would be provided in either the median lane or curb lane on Jackson Road. The Hi-bus service would include queue jump prioritization at signalized intersections and transit stations.

- **Alternative 5: Six-lane standard state highway** – Under this alternative Jackson Road would be constructed as a standard six-lane state highway with six travel lanes, paved shoulders, and a striped median. BRT/Hi-bus would not be accommodated in this alternative. Bicycles and pedestrians would use the paved shoulders.

The section of Jackson Road in the City of Sacramento, between Folsom Boulevard and South Watt Avenue was assumed to be a four-lane divided arterial per the City of Sacramento General Plan. The extension of 14th Avenue was assumed to be a four-lane facility per the City of Sacramento General Plan. The segment of Jackson Road between Sunrise Boulevard and Grant Line Road was assumed to be a six-lane thoroughfare per the County of Sacramento and City of Rancho Cordova General Plans.

During the screening process the project alternatives were reduced from five alternatives to two alternatives. Factors used to screen the alternatives included vehicle operations, transit operations and access to supporting land uses, pedestrian comfort, bicycle use suitability, and access to properties adjoining the corridor. Table 6 presents the results of the screening analysis. The alternatives that have been considered and rejected are:

- **Alternative 1: four-lane arterial with median BRT lanes**. This alternative was considered but rejected because it was not able to accommodate the projected traffic demand.
- **Alternative 3: Six-lane thoroughfare with side running BRT lanes**. This alternative was considered but rejected for the following reasons:
  - The very large footprint for the facility. The footprint was 153 feet from the back of the sidewalk to back of sidewalk, and this footprint would be difficult to accommodate on some sections of Jackson Road.
  - Intersection operation inefficiencies. BRT operations would require a traffic signal to be in an all red phase (vehicle and pedestrian) during a BRT call.
  - All intersections would need to be signalized. Any intersecting street on the side with the BRT exclusive lanes would need to be controlled by a traffic signal to reduce conflicts between busses and automobiles.
  - Access to Jackson Road would be reduced. Driveway access to properties on the side of Jackson Road with the BRT exclusive lanes would be restricted to traffic signal controlled streets to eliminate conflicts between busses and automobiles.
- **Alternative 5: Six-lane standard state highway**. This alternative was considered but rejected because the roadway cross-section does not include high capacity transit, bicycle, or pedestrian facilities, which does not meet the purpose and need for the project as a complete street which was a stated goal of the PDT Team at the outset of the planning process

The alternatives carried forward for detailed evaluation were:

- Alternative 2: Six-lane thoroughfare with exclusive median BRT lanes
- Alternative 4: Six-lane thoroughfare with BRT in a parallel corridor (South Watt Avenue to an extension of Vineyard Road) and Hi-bus service in the corridor (Vineyard Road to Sunrise Boulevard).

The roadway cross section for Alternative 2 is shown in Figure 5. The roadway cross sections for Alternative 4 are shown in Figure 6.

TABLE 6:
ALTERNATIVE COMPARISON MATRIX

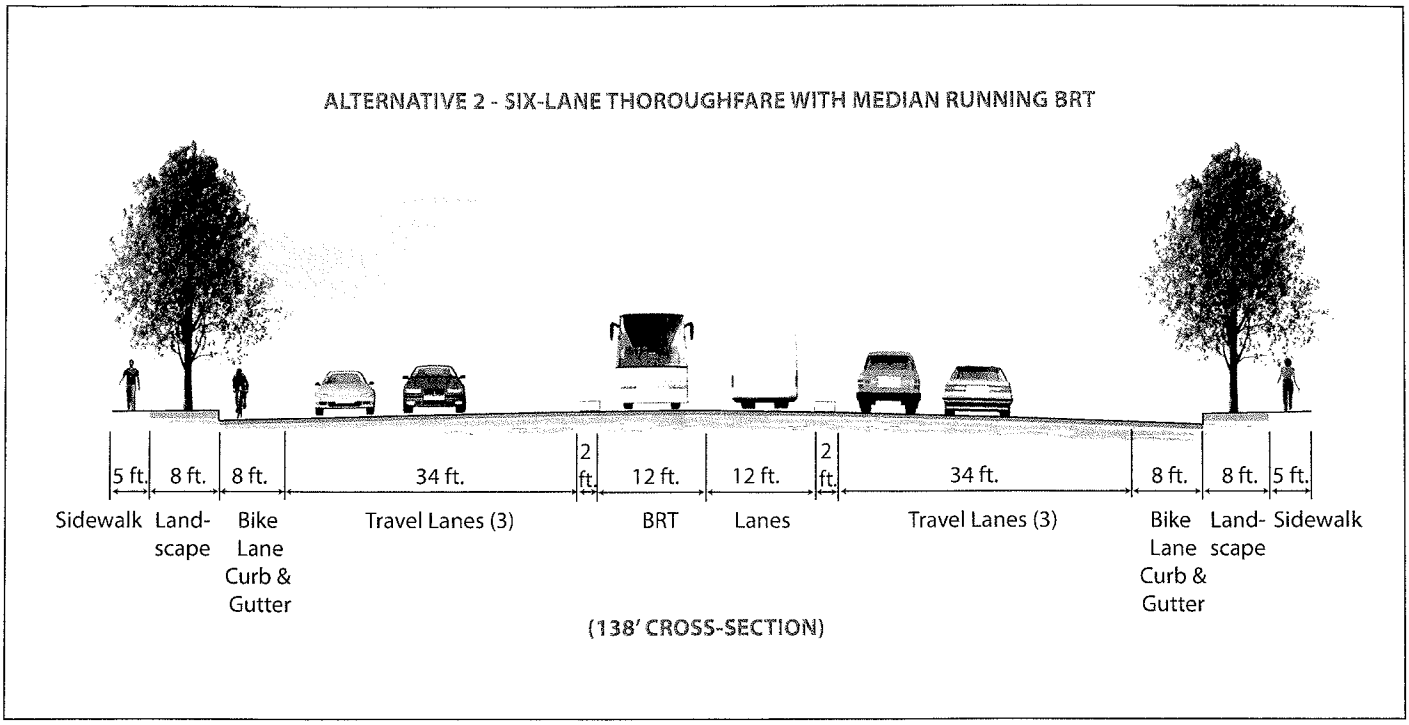
Alternative	Vehicle		Transit			Bicycle	Pedestrian		Access to Adjacent Property
	Segment	Intersection	Segment	Intersection	Land Use		Segment	Intersection	
Alt 1: 4 lane with median BRT	+	+	+++	++	+	++	+++	+++	++
Alt 2: 6 lane with median BRT	+++	+++	+++	++	+	++	+++	++	++
Alt 3: 6 lane with side running BRT	+++	++	+++	+	+	+++	++	+	+
Alt 4: 6 lane with BRT in parallel route & Hi-bus	+++	++	++	+++	+++	++	+++	++	+++
Alt 5: 6 lane state highway	+++	+++	+	+	+	+	+	++	++

Notes: +++ = Good (best operation for transit or vehicles, highest amount of adjacent transit supportive land uses, best environment for bikes and pedestrians, or least limitations to adjacent land uses)

++ = Fair

+ = Poor

Source: Fehr & Peers, 2012

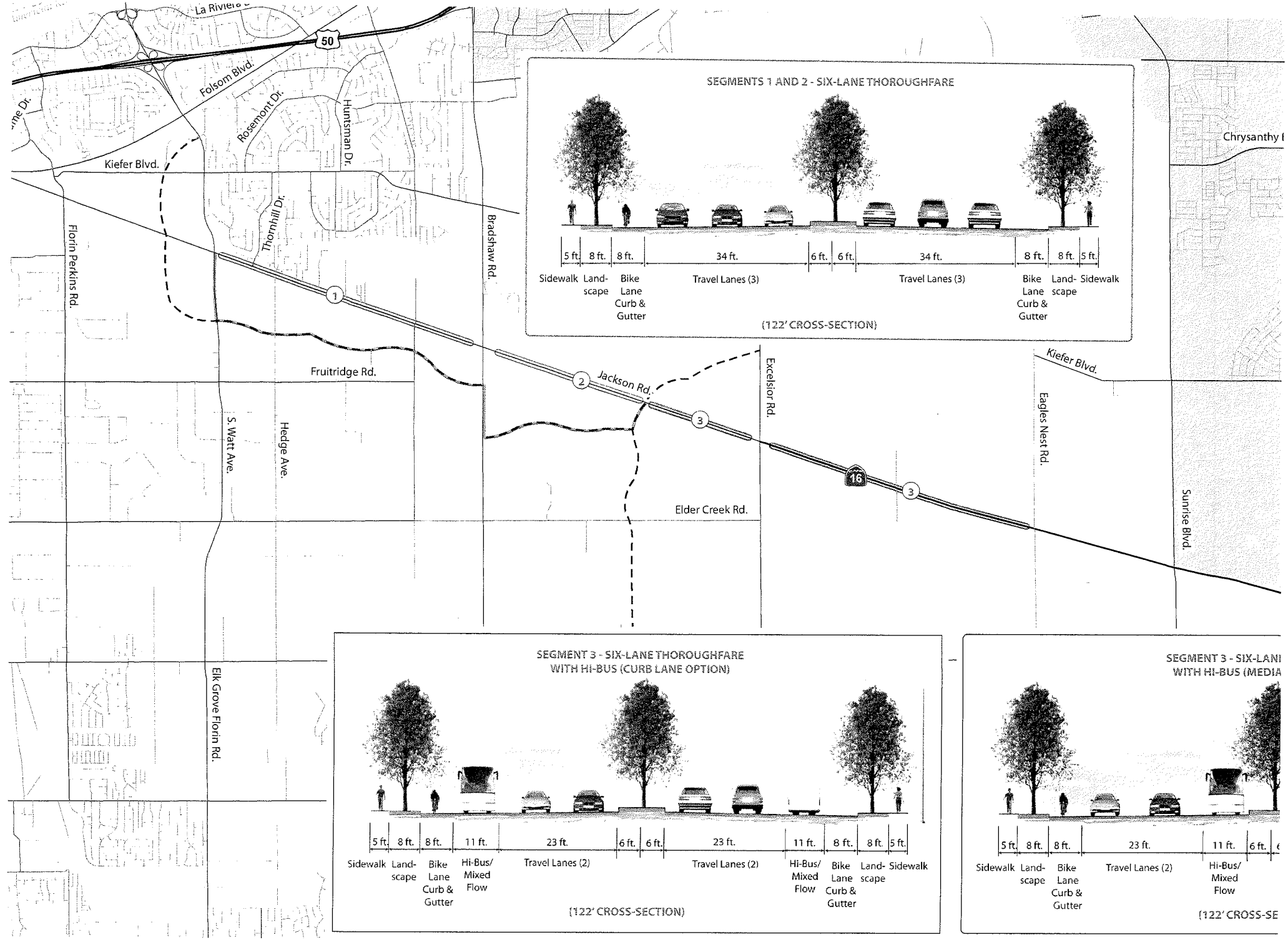


FEHR & PEERS

PROJECT ALTERNATIVE 2 CROSS-SECTION

N:\2010Projects\2825_SR16CorridorStudy\Graphics\PDF\August2011\Fig05_Xsection.pdf

FIGURE 5


La Riviera
50
Folsom Blvd.
Rosemont Dr.
Huntsman Dr.
Kiefer Blvd.
Thornhill Dr.
Florin Perkins Rd.
Bradshaw Rd.
Fruitridge Rd.
Jackson Rd.
Excelsior Rd.
Kiefer Blvd.
Eagles Nest Rd.
Sunrise Blvd.
S. Watt Ave.
Hedge Ave.
Elder Creek Rd.
Elk Grove Florin Rd.
Chrysanthy
1
2
3
3
16
SEGMENTS 1 AND 2 - SIX-LANE THOROUGHFARE
5 ft. 8 ft. 8 ft. 34 ft. 6 ft. 6 ft. 34 ft. 8 ft. 8 ft. 5 ft.
Sidewalk Land-scape Bike Lane Curb & Gutter Travel Lanes (3) Travel Lanes (3) Bike Lane Curb & Gutter Land-scape Sidewalk
(122' CROSS-SECTION)
SEGMENT 3 - SIX-LANE THOROUGHFARE WITH HI-BUS (CURB LANE OPTION)
5 ft. 8 ft. 8 ft. 11 ft. 23 ft. 6 ft. 6 ft. 23 ft. 11 ft. 8 ft. 8 ft. 5 ft.
Sidewalk Land-scape Bike Lane Curb & Gutter Hi-Bus/ Mixed Flow Travel Lanes (2) Travel Lanes (2) Hi-Bus/ Mixed Flow Bike Lane Curb & Gutter Land-scape Sidewalk
(122' CROSS-SECTION)
SEGMENT 3 - SIX-LANE
WITH HI-BUS (MEDIA
5 ft. 8 ft. 8 ft. 23 ft. 11 ft. 6 ft.
Sidewalk Land-scape Bike Lane Curb & Gutter Travel Lanes (2) Hi-Bus/ Mixed Flow
(122' CROSS-SE

5. CUMULATIVE CONDITIONS ANALYSIS

Traffic operations were evaluated for the Cumulative No Project and Cumulative with Project scenarios. This chapter summarizes the results of the traffic analysis. The Cumulative No Project and Cumulative with Project forecasted turning movements and lane configurations are presented in Figures 7, 8, and 9, respectively.

The cumulative analysis incorporated the major Tier 1 improvements included in the 2008 Metropolitan Transportation Plan (Metropolitan Transportation Plan for 2035). The Tier 1 improvements assumed to be in-place by the Year 2035 are listed in Table 1 and shown in Figure 3.

NO PROJECT CONDITIONS

Intersection Operations

Table 7 presents the results of the intersection operations analysis for the Cumulative Conditions – No Project Alternative. Under the No Project scenario, the following intersections would operate at an unacceptable LOS during one or more of the peak hours:

- US 50 westbound ramps / Howe Avenue – College Town Drive: LOS E during the PM peak hour
- Jackson Road (SR 16) / South Watt Avenue: LOS F during the AM and PM peak hours.
- Jackson Road (SR 16) / Thornhill Drive: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Hedge Avenue: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Mayhew Road: Fruitridge Road extension – LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Bradshaw Road: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Excelsior Road: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Eagles Nest Road: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Sunrise Boulevard: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Grant Line Road: LOS F during the AM and PM peak hours
- 14th Avenue / Power Inn Road: LOS E during the AM peak hour
- Folsom Boulevard / South Watt Avenue: LOS F during the AM and PM peak hours

TABLE 7:
CUMULATIVE NO PROJECT CONDITIONS – PEAK HOUR INTERSECTION OPERATIONS

Intersection	Traffic Control	Peak Hour	Delay[1]	LOS[2]
1. US 50 WB Ramps – College Town Drive / Howe Avenue	Signal	AM	39	D
		PM	**72**	**E**
2. US 50 EB Ramps / Howe Avenue	Signal	AM	14	B
		PM	16	B
3. Folsom Boulevard / Howe Avenue – Power Inn Road	Signal	AM	64	E
		PM	102	F
4. Folsom Boulevard / Jackson Road – Notre Dame Drive	Signal	AM	30	C
		PM	49	D
5. Jackson Road (SR 16) / Florin Perkins Road	Signal	AM	32	C
		PM	43	D
6. Jackson Road (SR 16) / South Watt Avenue	Signal	AM	**382**	**F**
		PM	**392**	**F**
7. Jackson Road (SR 16) / Thornhill Drive	Side Street Stop	AM	**>600**	**F**
		PM	**>600**	**F**
8. Jackson Road (SR 16) / Hedge Avenue	Signal	AM	**417**	**F**
		PM	**429**	**F**
9. Jackson Road (SR 16) / Mayhew/Fruitridge Road Extension	Signal	AM	**407**	**F**
		PM	**458**	**F**
10. Jackson Road (SR 16) / Bradshaw Road	Signal	AM	**387**	**F**
		PM	**452**	**F**
11. Jackson Road (SR 16) / Excelsior Road	Signal	AM	**111**	**F**
		PM	**241**	**F**
12. Jackson Road (SR 16) / Eagles Nest Road	Side Street Stop	AM	**>600**	**F**
		PM	**>600**	**F**
13. Jackson Road (SR 16) / Sunrise Boulevard	Signal	AM	**299**	**F**
		PM	**338**	**F**
14. Jackson Road (SR 16) / Grant Line Road	Signal	AM	**371**	**F**
		PM	**262**	**F**
15. 14th Avenue / Power Inn Road	Signal	AM	**73**	**E**
		PM	44	D
16. Folsom Boulevard / South Watt Avenue	Signal	AM	**207**	**F**
		PM	**259**	**F**
17. Manlove Road / South Watt Avenue	Signal	AM	80	E
		PM	60	E
18. Kiefer Boulevard / South Watt Avenue	Signal	AM	79	E
		PM	69	E
19. Canberra Drive / South Watt Avenue	Signal	AM	19	B
		PM	17	B

Notes: [1]For signalized intersections, the overall average intersection control delay is reported in seconds per vehicle. For side-street stop control, the average control delay for the worst movement is reported in seconds per vehicle.

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

Delays greater than 10 minutes are not reported due to model insensitivity under extreme delay.

BOLD text indicates the intersection operates at an unacceptable LOS based on the presiding jurisdiction's LOS policy.

Source: Fehr & Peers, 2012

Roadway Segment Operations

The Cumulative No Project daily traffic volumes, number of lanes, volume to capacity ratio, and level of service on each roadway segment are presented in Table 8. The following roadway segments would operate at an unacceptable level of service:

- Jackson Road (SR 16): Folsom Boulevard to Florin-Perkins Road (LOS F)
- Jackson Road (SR 16): Florin-Perkins Road to 14th Avenue (LOS F)
- Jackson Road (SR 16): 14th Avenue to South Watt Avenue (LOS F)
- Jackson Road (SR 16): South Watt Avenue to Bradshaw Road (LOS F)
- Jackson Road (SR 16): Bradshaw Road to Excelsior Road (LOS F)
- Jackson Road (SR 16): Excelsior Road to Sunrise Boulevard (LOS F)
- Jackson Road (SR 16): Sunrise Boulevard to Grant Line Road (LOS F)
- Howe Avenue-Power Inn Road: US 50 to Folsom Boulevard (LOS F)
- South Watt Avenue: Fair Oaks Boulevard to Folsom Boulevard (LOS F)
- South Watt Avenue: Folsom Boulevard to Kiefer Boulevard (LOS F)
- South Watt Avenue: Kiefer Boulevard to Jackson Road (LOS F)
- Bradshaw Road: US 50 to Old Placerville Road (LOS F)
- Bradshaw Road: Old Placerville Road to Kiefer Boulevard (LOS F)
- Bradshaw Road: Kiefer Boulevard to Jackson Road (LOS F)
- Bradshaw Road: Jackson Road to Elder Creek Road (LOS F)
- Excelsior Road: Jackson Road to Elder Creek Road (LOS F)

TABLE 8:
CUMULATIVE – NO PROJECT CONDITIONS
ROADWAY SEGMENT DAILY VOLUMES AND OPERATIONS

Roadway	Segment		ADT	Number of Lanes	V/C Ratio	LOS
	From	To				
1. Jackson Road (SR 16)	Folsom Boulevard	Florin Perkins Road	23,900	2	1.82	**F**
2a. Jackson Road (SR 16)	Florin Perkins Road	14th Avenue	37,300	4	1.03	**F**
2b. Jackson Road (SR 16)	14th Avenue	South Watt Avenue	50,300	4	1.40	**F**
3. Jackson Road (SR 16)	South Watt Avenue	Bradshaw Road	68,200	2	4.01	**F**
4. Jackson Road (SR 16)	Bradshaw Road	Excelsior Road	61,700	2	3.63	**F**
5. Jackson Road (SR 16)	Excelsior Road	Sunrise Boulevard	47,400	2	2.79	**F**
6. Jackson Road (SR 16)	Sunrise Boulevard	Grant Line Road	52,800	2	3.10	**F**
7. Folsom Boulevard (SR 16)	Power Inn Road	Jackson Road	49,100	4	1.36	F
8. Folsom Boulevard	Jackson Road (SR 16)	South Watt Avenue	22,600	4	0.63	B
9. Folsom Boulevard	South Watt Avenue	La Riviera Drive	29,800	4	0.82	D
10. Folsom Boulevard	La Riviera Drive	Mayhew Road	32,300	4	0.90	D
11. Howe Avenue (SR 16)	US 50	Folsom Boulevard	68,400	6	1.14	**F**
12. Power Inn Road	Folsom Boulevard	14th Avenue	45,900	6	0.85	D
13. Florin Perkins Road	Folsom Boulevard	Jackson Road (SR 16)	21,600	6	0.40	A
14. Florin Perkins Road	Jackson Road (SR 16)	Fruitridge Road	35,500	6	0.66	B
15. South Watt Avenue	Fair Oaks Boulevard	Folsom Boulevard	126,800	6	2.11	**F**
16. South Watt Avenue	Folsom Boulevard	Kiefer Boulevard	88,800	6	1.64	**F**
17. South Watt Avenue	Kiefer Boulevard	Jackson Road (SR 16)	84,600	6	1.57	**F**
18. South Watt Avenue	Jackson Road (SR 16)	Fruitridge Road	52,000	6	0.96	E
19. Bradshaw Road	US 50	Old Placerville Road	87,100	6	1.61	**F**
20. Bradshaw Road	Old Placerville Road	Kiefer Boulevard	81,900	6	1.52	**F**
21. Bradshaw Road	Kiefer Boulevard	Jackson Road (SR 16)	79,000	6	1.46	**F**
22. Bradshaw Road	Jackson Road (SR 16)	Elder Creek Road	59,900	6	1.11	**F**
23. Excelsior Road	Kiefer Boulevard	Jackson Road (SR 16)	11,400	4	0.32	A
24. Excelsior Road	Jackson Road (SR 16)	Elder Creek Road	40,800	4	1.13	**F**
25. 14th Avenue	Power Inn Road	Florin-Perkins Road	23,000	4	0.64	B
26. 14th Avenue	Florin Perkins Road	Jackson Road (SR 16)	23,200	4	0.64	B

Notes: **BOLD** text indicates the roadway operates at an unacceptable LOS based on the presiding jurisdiction's LOS policy.
Source: Fehr & Peers, 2012

WITH PROJECT CONDITIONS

Intersection Operations

Alternative 2: Six-Lane Urban Arterial with Median Running BRT

For Alternative 2, the six-lane cross-section and provision of median running BRT lanes generates large signalized intersections. At signalized intersections, BRT vehicles would travel with the eastbound and westbound through movements. The eastbound and westbound left-turn offset requires leading/lagging left-turn operations. Due to these operations, the BRT vehicles receive a minimal amount of green time.

Table 9 shows the level of service and delay for the study intersections for Alternative 2. Under Alternative 2, the following intersections would operate at an unacceptable LOS during one or more of the peak hours:

- US 50 westbound ramps / Howe Avenue – College Town Drive: LOS E during the PM peak hour
- Jackson Road (SR 16) / South Watt Avenue: LOS F during the AM peak hour
- Jackson Road (SR 16) / Bradshaw Road: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Sunrise Boulevard: LOS E during the PM peak hour
- Jackson Road (SR 16) / Grant Line Road: LOS E during the AM peak hour
- 14th Avenue / Power Inn Road: LOS E during the AM peak hour
- Folsom Boulevard / South Watt Avenue: LOS F during the AM and PM peak hours

Alternative 4: Six-Lane Urban Arterial with BRT in a Parallel Corridor

For Alternative 4, BRT operations would operate in median-running exclusive lanes on South Watt Avenue north of Jackson Road and on Rock Creek Parkway between South Watt Avenue and Vineyard Road Extension west of Excelsior Road. Starting at the Jackson Road / Vineyard Road intersection, the high-capacity bus service would either operate in the median or curb mixed-flow lane east to Sunrise Boulevard. At signalized intersections between Vineyard Road and Sunrise Boulevard, transit vehicles would have the option to preempt the signal by using the adjacent left-turn or right-turn lane to "queue jump" ahead of through movement vehicles. The queue jump preemption increases delay for passenger vehicles at the signalized intersections, as shown in Table 8.

For the median lane Hi-bus option, the station would be located on one approach (east or west) to the intersection with wider medians to accommodate the station and pedestrian path from the intersection to the station. Busses would use the outside left-turn lane to accomplish the queue jump of vehicles queued in the through lanes. For this option, busses departing the station would need to merge with traffic in the through lane adjacent to the median. Busses stopping at the station would need to decelerate in the through lane adjacent to the median. Both operations could impact vehicle flow in the through lane adjacent to the median. This option would also require busses with left side doors.

For the curb lane Hi-bus option, the stations would be located at the far side of an intersection in either a bus turnout or in the travel lane. Buses would utilize the right-turn lane as the queue jump lane. For this option, busses leaving a station would need to merge with traffic in the through lane adjacent to the curb. This operation could impact vehicle flow in the lane adjacent to the curb. This option allows the use of standard right side door busses. Table 9 shows the level of service and delay for the study intersections for Alternative 4.

TABLE 9:
CUMULATIVE PLUS PROJECT CONDITIONS – PEAK HOUR INTERSECTION OPERATIONS

Intersection	Traffic Control	Peak Hour	No Project		Alternative 2		Alternative 4	
			Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]
1. US 50 WB Ramps – College Town Dr. / Howe Ave.	Signal	AM	39	D	39	D	39	D
		PM	**72**	**E**	**72**	**E**	**72**	**E**
2. US 50 EB Ramps / Howe Avenue	Signal	AM	14	B	14	B	14	B
		PM	16	B	16	B	16	B
3. Folsom Boulevard / Howe Avenue – Power Inn Road	Signal	AM	64	E	64	E	64	E
		PM	102	F	102	F	102	F
4. Folsom Boulevard / Jackson Road – Notre Dame Drive	Signal	AM	30	C	30	C	30	C
		PM	49	D	49	D	49	D
5. Jackson Road (SR 16) / Florin Perkins Road	Signal	AM	32	C	31	C	31	C
		PM	43	D	42	D	42	D
6. Jackson Road (SR 16) / South Watt Avenue	Signal	AM	**382**	**F**	**110**	**F**	**110**	**F**
		PM	**392**	**F**	79	E	**85**	**F**
7. Jackson Road (SR 16) / Thornhill Drive	Side Street Stop[3]	AM	**>600**	**F**	12	B	**266**	**F**
		PM	**>600**	**F**	12	B	**93**	**F**
8. Jackson Road (SR 16) / Hedge Avenue	Signal	AM	**417**	**F**	34	C	30	C
		PM	**429**	**F**	21	C	28	C
9. Jackson Rd (SR 16) / Mayhew/Fruitridge Rd Extension	Signal	AM	**407**	**F**	63	E	63	E
		PM	**458**	**F**	71	E	71	E
10. Jackson Road (SR 16) / Bradshaw Road	Signal	AM	**387**	**F**	**94**	**F**	**94**	**F**
		PM	**452**	**F**	**113**	**F**	**113**	**F**
11. Jackson Road (SR 16) / Excelsior Road	Signal	AM	**111**	**F**	39	D	47	D
		PM	**241**	**F**	59	E	79	E
12. Jackson Road (SR 16) / Eagles Nest Road	Signal	AM	**>600**	**F**	26	C	42	D
		PM	**>600**	**F**	29	C	38	D
13. Jackson Road (SR 16) / Sunrise Boulevard	Signal	AM	**299**	**F**	49	D	49	D
		PM	**338**	**F**	**71**	**E**	**71**	**E**
14. Jackson Road (SR 16) / Grant Line Road	Signal	AM	**371**	**F**	**63**	**E**	**63**	**E**
		PM	**262**	**F**	49	D	49	D
15. 14th Avenue / Power Inn Road	Signal	AM	**73**	**E**	**73**	**E**	**73**	**E**
		PM	44	D	44	D	44	D
16. Folsom Boulevard / South Watt Avenue	Signal	AM	**207**	**F**	**207**	**F**	**207**	**F**
		PM	**259**	**F**	**259**	**F**	**259**	**F**
17. Manlove Road / South Watt Avenue	Signal	AM	80	E	80	E	80	E
		PM	60	E	60	E	60	E
18. Kiefer Boulevard / South Watt Avenue	Signal	AM	79	E	79	E	79	E
		PM	69	E	70	E	69	E
19. Canberra Drive / South Watt Avenue	Signal	AM	19	B	20	B	19	B
		PM	17	B	18	B	18	B

Notes: [1]For signalized intersections, the overall average intersection control delay is reported in seconds per vehicle. For side-street stop control, the average control delay for the worst movement is reported in seconds per vehicle.

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

[3]Eastbound left-turn movements at Jackson Road / Thornhill Drive are prohibited under Alternative 2 due to the median running BRT lanes.

Delays greater than 10 minutes are not reported due to model insensitivity under extreme delay.

BOLD text indicates the intersection operates at an unacceptable LOS based on the presiding jurisdiction's LOS policy.

Source: Fehr & Peers, 2012

Under Alternative 4, the following intersections would operate at an unacceptable LOS during one or more of the peak hours:

- US 50 westbound ramps / Howe Avenue – College Town Drive: LOS E during the PM peak hour
- Jackson Road (SR 16) / South Watt Avenue: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Thornhill Drive: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Bradshaw Road: LOS F during the AM and PM peak hours
- Jackson Road (SR 16) / Sunrise Boulevard: LOS E during the PM peak hour
- Jackson Road (SR 16) / Grant Line Road: LOS E during the AM peak hour
- 14th Avenue / Power Inn Road: LOS E during the AM peak hour
- Folsom Boulevard / South Watt Avenue: LOS F during the AM and PM peak hours

ROADWAY SEGMENT OPERATIONS

The cumulative daily traffic volumes, volume to capacity ratio, and level of service on each roadway segment for the no project, alternative 2, and alternative 4 options are presented in Table 10.

Alternative 2: Six-Lane Urban Arterial with Median Running BRT

The following roadway segments would operate at an unacceptable level of service with the construction of Alternative 2:

- Jackson Road (SR 16): Folsom Boulevard to Florin-Perkins Road (LOS F)
- Jackson Road (SR 16): Florin-Perkins Road to 14th Avenue (LOS F)
- Jackson Road (SR 16): 14th Avenue to South Watt Avenue (LOS F)
- Jackson Road (SR 16): South Watt Avenue to Bradshaw Road (LOS F)
- Jackson Road (SR 16): Bradshaw Road to Excelsior Road (LOS F)
- Jackson Road (SR 16): Sunrise Boulevard to Grant Line Road (LOS E)
- Howe Avenue-Power Inn Road: US 50 to Folsom Boulevard (LOS F)
- South Watt Avenue: Fair Oaks Boulevard to Folsom Boulevard (LOS F)
- South Watt Avenue: Folsom Boulevard to Kiefer Boulevard (LOS F)
- South Watt Avenue: Kiefer Boulevard to Jackson Road (LOS F)
- Bradshaw Road: US 50 to Old Placerville Road (LOS F)
- Bradshaw Road: Old Placerville Road to Kiefer Boulevard (LOS F)
- Bradshaw Road: Kiefer Boulevard to Jackson Road (LOS F)
- Bradshaw Road: Jackson Road to Elder Creek Road (LOS F)
- Excelsior Road: Jackson Road to Elder Creek Road (LOS F)

Alternative 4: Six-Lane Urban Arterial with BRT in a Parallel Corridor

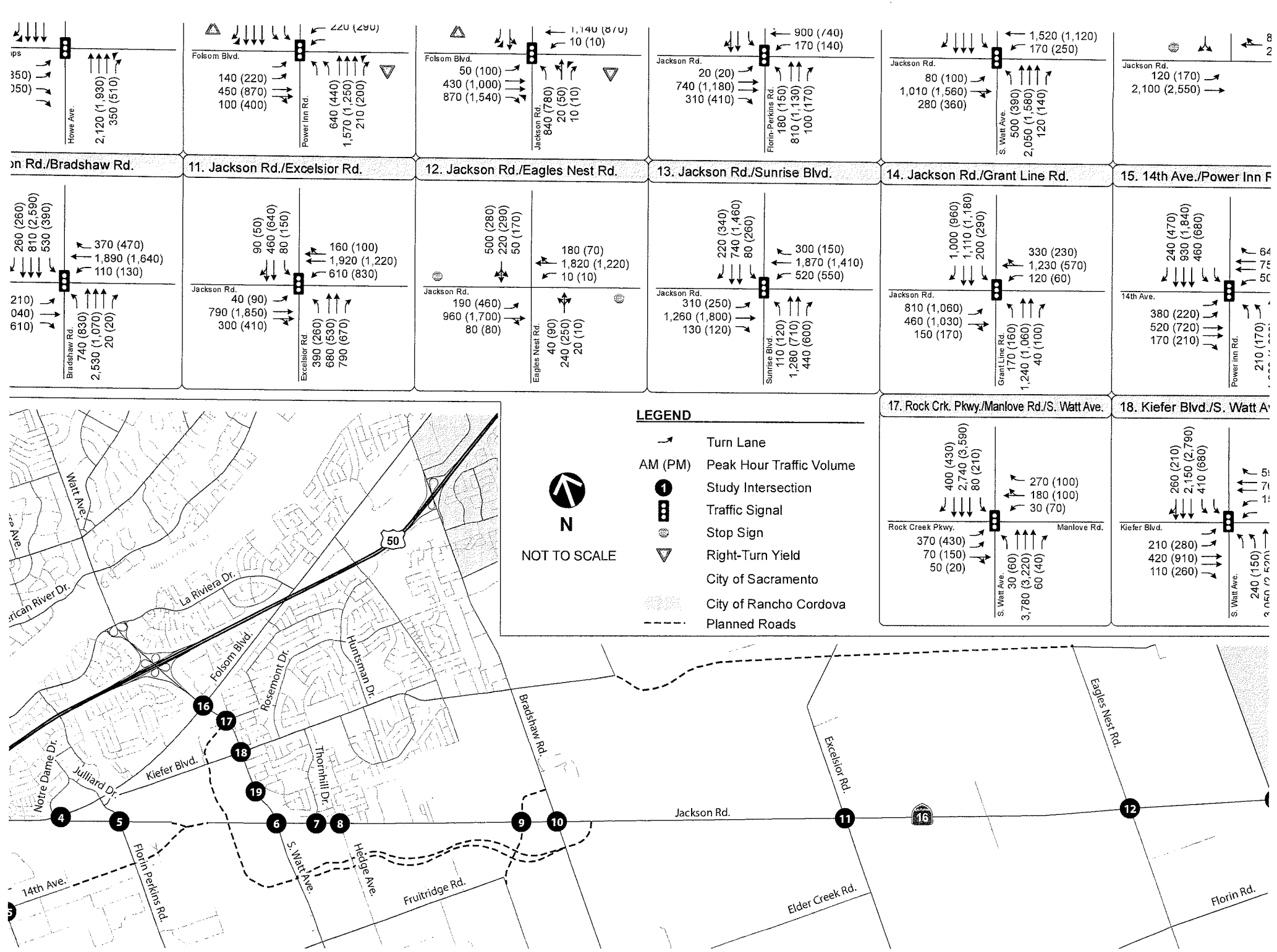
The following roadway segments would operate at an unacceptable level of service with the construction of Alternative 4:

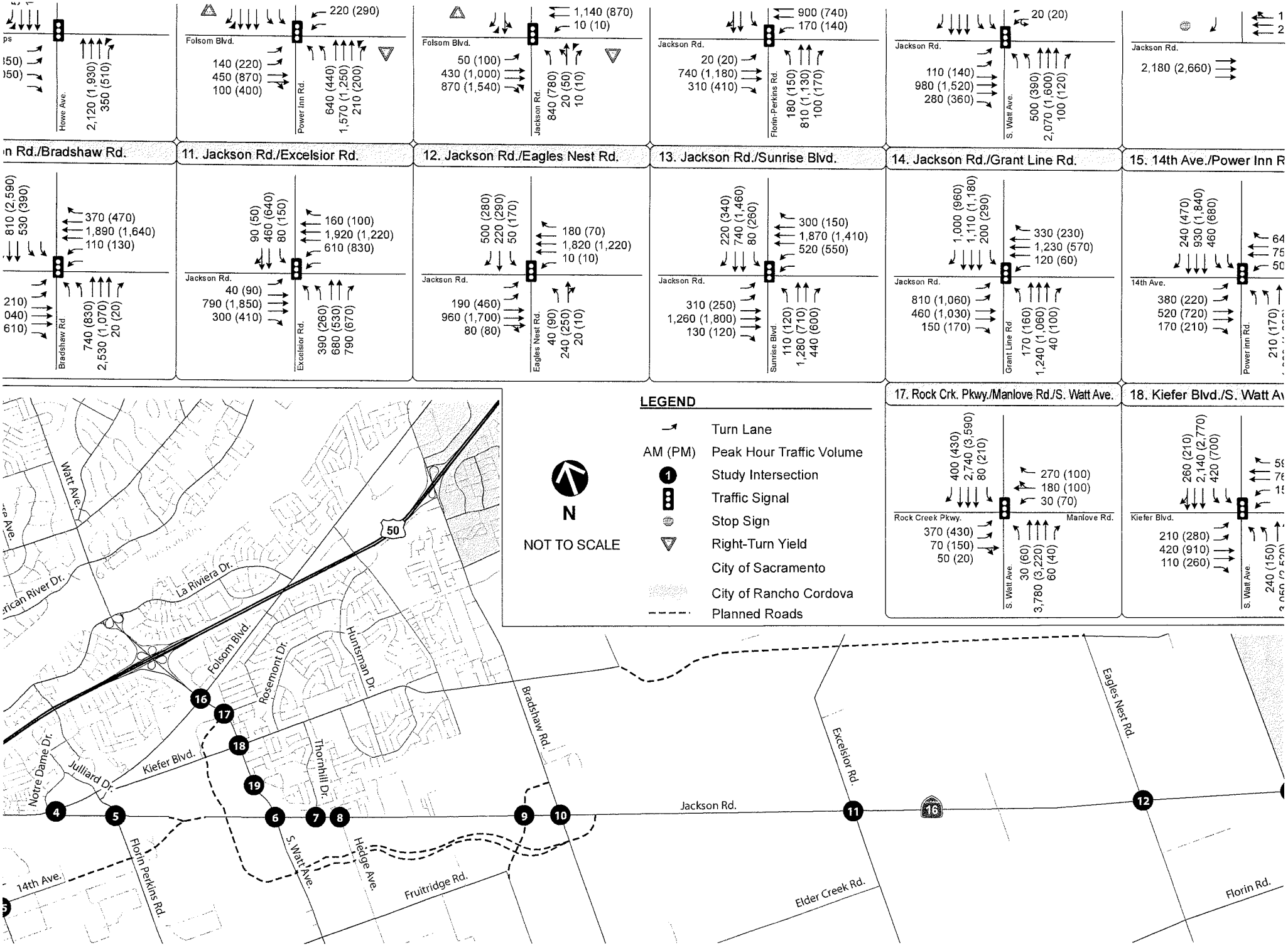
- Jackson Road (SR 16): Folsom Boulevard to Florin-Perkins Road (LOS F)
- Jackson Road (SR 16): Florin-Perkins Road to 14th Avenue (LOS F)
- Jackson Road (SR 16): 14th Avenue to South Watt Avenue (LOS F)
- Jackson Road (SR 16): South Watt Avenue to Bradshaw Road (LOS F)
- Jackson Road (SR 16): Bradshaw Road to Excelsior Road (LOS F)
- Jackson Road (SR 16): Sunrise Boulevard to Grant Line Road (LOS E)
- Howe Avenue-Power Inn Road: US 50 to Folsom Boulevard (LOS F)
- South Watt Avenue: Fair Oaks Boulevard to Folsom Boulevard (LOS F)
- South Watt Avenue: Folsom Boulevard to Kiefer Boulevard (LOS F)
- South Watt Avenue: Kiefer Boulevard to Jackson Road (LOS F)
- Bradshaw Road: US 50 to Old Placerville Road (LOS F)
- Bradshaw Road: Old Placerville Road to Kiefer Boulevard (LOS F)
- Bradshaw Road: Kiefer Boulevard to Jackson Road (LOS F)
- Bradshaw Road: Jackson Road to Elder Creek Road (LOS F)
- Excelsior Road: Jackson Road to Elder Creek Road (LOS F)

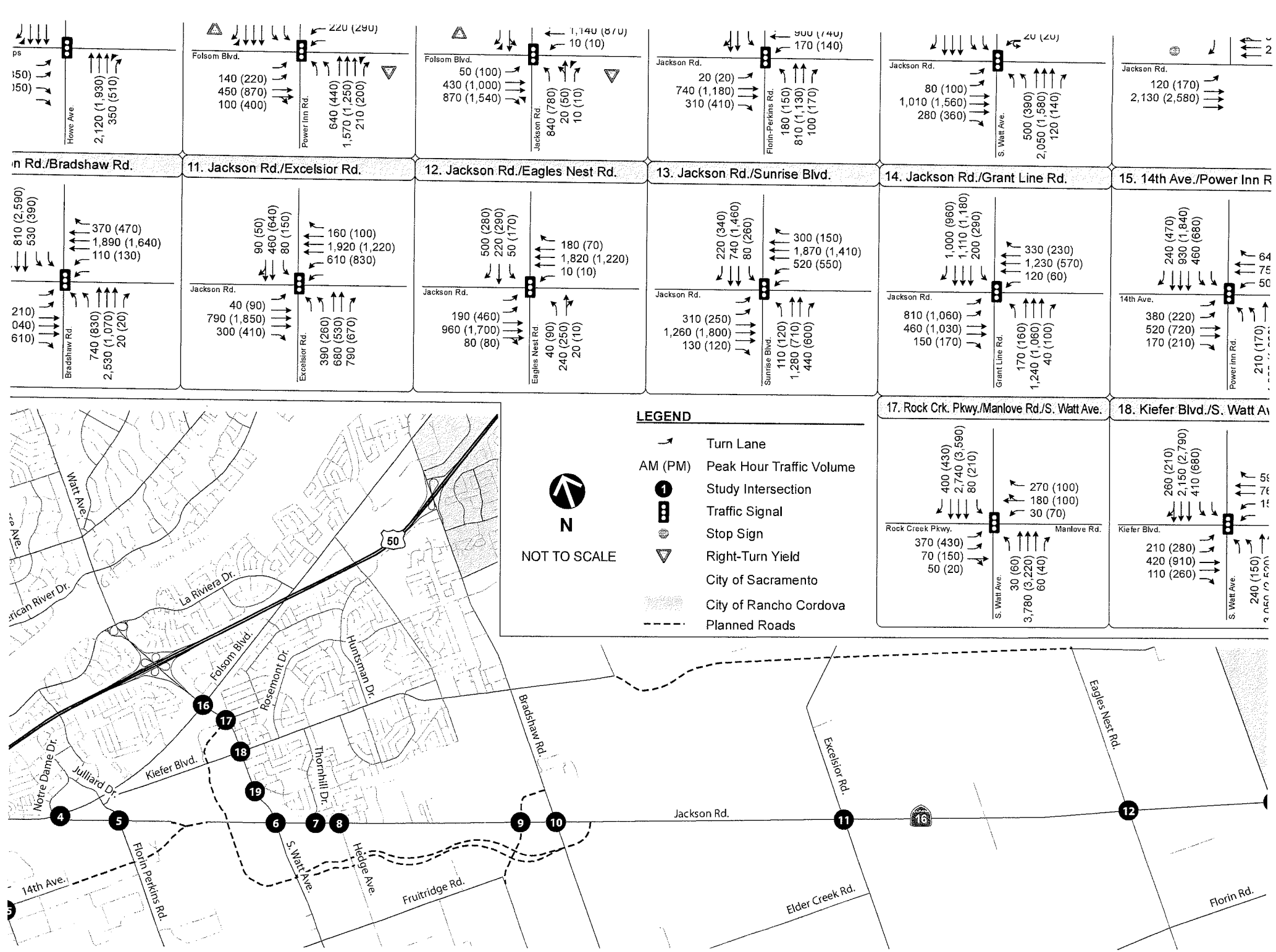
TABLE 10:
CUMULATIVE CONDITIONS – ROADWAY SEGMENT DAILY VOLUMES AND OPERATIONS

Roadway	Segment		Daily Traffic Volumes	No Project		Alternative 2		Alternative 4	
	From	To		V/C	LOS	V/C	LOS	V/C	LOS
1. Jackson Road (SR 16)	Folsom Boulevard	Florin Perkins Road	32,900	1.82	**F**	1.82	**F**	1.82	**F**
2a. Jackson Road (SR 16)	Florin Perkins Road	14th Avenue	37,300	1.03	**F**	1.03	**F**	1.03	**F**
2b. Jackson Road (SR 16)	14th Avenue	South Watt Avenue	50,300	1.40	**F**	1.40	**F**	1.40	**F**
3. Jackson Road (SR 16)	South Watt Avenue	Bradshaw Road	68,200	4.01	**F**	1.26	**F**	1.26	**F**
4. Jackson Road (SR 16)	Bradshaw Road	Excelsior Road	61,700	3.63	**F**	1.14	**F**	1.14	**F**
5. Jackson Road (SR 16)	Excelsior Road	Sunrise Boulevard	47,400	2.79	**F**	0.88	D	0.88	D
6. Jackson Road (SR 16)	Sunrise Boulevard	Grant Line Road	52,800	0.98	**E**	0.98	**E**	0.98	**E**
7. Folsom Boulevard (SR 16)	Power Inn Road	Jackson Road	49,100	1.36	F	1.36	F	1.36	F
8. Folsom Boulevard	Jackson Road (SR 16)	South Watt Avenue	22,600	0.63	B	0.63	B	0.63	B
9. Folsom Boulevard	South Watt Avenue	La Riviera Drive	29,800	0.82	D	0.82	D	0.82	D
10. Folsom Boulevard	La Riviera Drive	Mayhew Road	32,300	0.90	D	0.90	D	0.90	D
11. Howe Avenue (SR 16)	US 50	Folsom Boulevard	68,400	1.14	**F**	1.14	**F**	1.14	**F**
12. Power Inn Road	Folsom Boulevard	14th Avenue	45,900	0.85	D	0.85	D	0.85	D
13. Florin Perkins Road	Folsom Boulevard	Jackson Road (SR 16)	21,600	0.40	A	0.40	A	0.40	A
14. Florin Perkins Road	Jackson Road (SR 16)	Fruitridge Road	35,500	0.66	B	0.66	B	0.66	B
15. South Watt Avenue	Fair Oaks Boulevard	Folsom Boulevard	126,800	2.11	**F**	2.11	**F**	2.11	**F**
16. South Watt Avenue	Folsom Boulevard	Kiefer Boulevard	88,800	1.64	**F**	1.64	**F**	1.64	**F**
17. South Watt Avenue	Kiefer Boulevard	Jackson Road (SR 16)	84,600	1.57	**F**	1.57	**F**	1.57	**F**
18. South Watt Avenue	Jackson Road (SR 16)	Fruitridge Road	52,000	0.96	E	0.96	E	0.96	E
19. Bradshaw Road	US 50	Old Placerville Road	87,100	1.61	**F**	1.61	**F**	1.61	**F**
20. Bradshaw Road	Old Placerville Road	Kiefer Boulevard	81,900	1.52	**F**	1.52	**F**	1.52	**F**
21. Bradshaw Road	Kiefer Boulevard	Jackson Road (SR 16)	79,000	1.46	**F**	1.46	**F**	1.46	**F**
22. Bradshaw Road	Jackson Road (SR 16)	Elder Creek Road	59,900	1.11	**F**	1.11	**F**	1.11	**F**
23. Excelsior Road	Kiefer Boulevard	Jackson Road (SR 16)	11,400	0.32	A	0.32	A	0.32	A
24. Excelsior Road	Jackson Road (SR 16)	Elder Creek Road	40,800	1.13	**F**	1.13	**F**	1.13	**F**
25. 14th Avenue	Power Inn Road	Florin Perkins Road	23,000	0.64	B	0.64	B	0.64	B
26. 14th Avenue	Florin Perkins Road	Jackson Road (SR 16)	23,200	0.64	B	0.64	B	0.64	B

Notes: **BOLD** text indicates the roadway operates at an unacceptable LOS based on the presiding jurisdiction's LOS policy.
Source: Fehr & Peers, 2012


Howe Ave.
2,120 (1,930)
350 (510)
Folsom Blvd.
140 (220)
450 (870)
100 (400)
Power Inn Rd.
640 (440)
1,570 (1,250)
210 (200)
220 (290)
Folsom Blvd.
50 (100)
430 (1,000)
870 (1,540)
Jackson Rd.
840 (780)
20 (50)
10 (10)
1,140 (870)
10 (10)
Jackson Rd.
20 (20)
740 (1,180)
310 (410)
Florin-Perkins Rd.
180 (150)
810 (1,130)
100 (170)
900 (740)
170 (140)
Jackson Rd.
80 (100)
1,010 (1,560)
280 (360)
S. Watt Ave.
500 (390)
2,050 (1,580)
120 (140)
1,520 (1,120)
170 (250)
Jackson Rd.
120 (170)
2,100 (2,550)
on Rd./Bradshaw Rd.
260 (260)
810 (2,590)
530 (390)
370 (470)
1,890 (1,640)
110 (130)
210)
040)
610)
Bradshaw Rd.
740 (830)
2,530 (1,070)
20 (20)
11. Jackson Rd./Excelsior Rd.
90 (50)
460 (640)
80 (150)
160 (100)
1,920 (1,220)
610 (830)
Jackson Rd.
40 (90)
790 (1,850)
300 (410)
Excelsior Rd
390 (260)
680 (530)
790 (670)
12. Jackson Rd./Eagles Nest Rd.
500 (280)
220 (290)
50 (170)
180 (70)
1,820 (1,220)
10 (10)
Jackson Rd.
190 (460)
960 (1,700)
80 (80)
Eagles Nest Rd.
40 (90)
240 (250)
20 (10)
13. Jackson Rd./Sunrise Blvd.
220 (340)
740 (1,460)
80 (260)
300 (150)
1,870 (1,410)
520 (550)
Jackson Rd.
310 (250)
1,260 (1,800)
130 (120)
Sunrise Blvd.
110 (120)
1,280 (710)
440 (600)
14. Jackson Rd./Grant Line Rd.
1,000 (960)
1,110 (1,180)
200 (290)
330 (230)
1,230 (570)
120 (60)
Jackson Rd.
810 (1,060)
460 (1,030)
150 (170)
Grant Line Rd.
170 (160)
1,240 (1,060)
40 (100)
15. 14th Ave./Power Inn R
240 (470)
930 (1,840)
460 (680)
14th Ave.
380 (220)
520 (720)
170 (210)
Power Inn Rd.
210 (170)
17. Rock Crk. Pkwy./Manlove Rd./S. Watt Ave.
400 (430)
2,740 (3,590)
80 (210)
270 (100)
180 (100)
30 (70)
Rock Creek Pkwy.
Manlove Rd.
370 (430)
70 (150)
50 (20)
S. Watt Ave.
30 (60)
3,780 (3,220)
60 (40)
18. Kiefer Blvd./S. Watt A
260 (210)
2,150 (2,790)
410 (680)
Kiefer Blvd.
210 (280)
420 (910)
110 (260)
S. Watt Ave.
240 (150)
LEGEND
Turn Lane
AM (PM) Peak Hour Traffic Volume
1 Study Intersection
Traffic Signal
Stop Sign
Right-Turn Yield
City of Sacramento
City of Rancho Cordova
Planned Roads
N
NOT TO SCALE
Watt Ave.
50
La Riviera Dr.
Folsom Blvd.
Rosemont Dr.
Huntsman Dr.
Bradshaw Rd.
Eagles Nest Rd.
Excelsior Rd.
Jackson Rd.
Notre Dame Dr.
Julliard Dr.
Kiefer Blvd.
Thornhill Dr.
Florin Perkins Rd.
S. Watt Ave.
Hedge Ave.
Fruitridge Rd.
14th Ave.
Elder Creek Rd.
Florin Rd.
4
5
6
7
8
9
10
11
12
16
17
18
19


Howe Ave.
2,120 (1,930)
350 (510)
Folsom Blvd.
Power Inn Rd.
140 (220)
450 (870)
100 (400)
640 (440)
1,570 (1,250)
210 (200)
220 (290)
Folsom Blvd.
Jackson Rd.
50 (100)
430 (1,000)
870 (1,540)
840 (780)
20 (50)
10 (10)
1,140 (870)
10 (10)
Jackson Rd.
Florin-Perkins Rd.
20 (20)
740 (1,180)
310 (410)
180 (150)
810 (1,130)
100 (170)
900 (740)
170 (140)
Jackson Rd.
S. Watt Ave.
110 (140)
980 (1,520)
280 (360)
500 (390)
2,070 (1,600)
100 (120)
20 (20)
Jackson Rd.
2,180 (2,660)
n Rd./Bradshaw Rd.
Bradshaw Rd
740 (830)
2,530 (1,070)
20 (20)
370 (470)
1,890 (1,640)
110 (130)
11. Jackson Rd./Excelsior Rd.
Jackson Rd.
Excelsior Rd.
40 (90)
790 (1,850)
300 (410)
390 (260)
680 (530)
790 (670)
90 (50)
460 (640)
80 (150)
160 (100)
1,920 (1,220)
610 (830)
12. Jackson Rd./Eagles Nest Rd.
Jackson Rd.
Eagles Nest Rd.
190 (460)
960 (1,700)
80 (80)
40 (90)
240 (250)
20 (10)
500 (280)
220 (290)
50 (170)
180 (70)
1,820 (1,220)
10 (10)
13. Jackson Rd./Sunrise Blvd.
Jackson Rd.
Sunrise Blvd.
310 (250)
1,260 (1,800)
130 (120)
110 (120)
1,280 (710)
440 (600)
220 (340)
740 (1,460)
80 (260)
300 (150)
1,870 (1,410)
520 (550)
14. Jackson Rd./Grant Line Rd.
Jackson Rd.
Grant Line Rd
810 (1,060)
460 (1,030)
150 (170)
170 (160)
1,240 (1,060)
40 (100)
1,000 (960)
1,110 (1,180)
200 (290)
330 (230)
1,230 (570)
120 (60)
15. 14th Ave./Power Inn R
14th Ave.
Power Inn Rd.
380 (220)
520 (720)
170 (210)
210 (170)
240 (470)
930 (1,840)
460 (680)
17. Rock Crk. Pkwy./Manlove Rd./S. Watt Ave.
Rock Creek Pkwy.
Manlove Rd.
S. Watt Ave.
370 (430)
70 (150)
50 (20)
30 (60)
3,780 (3,220)
60 (40)
400 (430)
2,740 (3,590)
80 (210)
270 (100)
180 (100)
30 (70)
18. Kiefer Blvd./S. Watt Av
Kiefer Blvd.
S. Watt Ave.
210 (280)
420 (910)
110 (260)
240 (150)
260 (210)
2,140 (2,770)
420 (700)
LEGEND
Turn Lane
AM (PM) Peak Hour Traffic Volume
1 Study Intersection
Traffic Signal
Stop Sign
Right-Turn Yield
City of Sacramento
City of Rancho Cordova
Planned Roads
N
NOT TO SCALE
Watt Ave.
La Riviera Dr.
50
Folsom Blvd.
Rosemont Dr.
Huntsman Dr.
Bradshaw Rd.
Kiefer Blvd.
Julliard Dr.
Notre Dame Dr.
Thornhill Dr.
Excelsior Rd.
Eagles Nest Rd.
Jackson Rd.
16
17
18
19
4
5
6
7
8
9
10
11
12
Florin Perkins Rd.
S. Watt Ave.
Hedge Ave.
Fruitridge Rd.
14th Ave.
Elder Creek Rd.
Florin Rd.


Howe Ave
2,120 (1,930)
350 (510)
Folsom Blvd.
140 (220)
450 (870)
100 (400)
Power Inn Rd.
640 (440)
1,570 (1,250)
210 (200)
220 (290)
Folsom Blvd.
50 (100)
430 (1,000)
870 (1,540)
Jackson Rd
840 (780)
20 (50)
10 (10)
1,140 (870)
10 (10)
Jackson Rd.
20 (20)
740 (1,180)
310 (410)
Florin-Perkins Rd.
180 (150)
810 (1,130)
100 (170)
170 (140)
Jackson Rd.
80 (100)
1,010 (1,560)
280 (360)
S. Watt Ave.
500 (390)
2,050 (1,580)
120 (140)
Jackson Rd.
120 (170)
2,130 (2,580)
n Rd./Bradshaw Rd.
810 (2,590)
530 (390)
370 (470)
1,890 (1,640)
110 (130)
210)
040)
610)
Bradshaw Rd.
740 (830)
2,530 (1,070)
20 (20)
11. Jackson Rd./Excelsior Rd.
90 (50)
460 (640)
80 (150)
160 (100)
1,920 (1,220)
610 (830)
Jackson Rd.
40 (90)
790 (1,850)
300 (410)
Excelsior Rd.
390 (260)
680 (530)
790 (670)
12. Jackson Rd./Eagles Nest Rd.
500 (280)
220 (290)
50 (170)
180 (70)
1,820 (1,220)
10 (10)
Jackson Rd.
190 (460)
960 (1,700)
80 (80)
Eagles Nest Rd.
40 (90)
240 (250)
20 (10)
13. Jackson Rd./Sunrise Blvd.
220 (340)
740 (1,460)
80 (260)
300 (150)
1,870 (1,410)
520 (550)
Jackson Rd.
310 (250)
1,260 (1,800)
130 (120)
Sunrise Blvd.
110 (120)
1,280 (710)
440 (600)
14. Jackson Rd./Grant Line Rd.
1,000 (960)
1,110 (1,180)
200 (290)
330 (230)
1,230 (570)
120 (60)
Jackson Rd.
810 (1,060)
460 (1,030)
150 (170)
Grant Line Rd.
170 (160)
1,240 (1,060)
40 (100)
15. 14th Ave./Power Inn R
240 (470)
930 (1,840)
460 (680)
14th Ave.
380 (220)
520 (720)
170 (210)
Power inn Rd.
210 (170)
17. Rock Crk. Pkwy./Manlove Rd./S. Watt Ave.
400 (430)
2,740 (3,590)
80 (210)
270 (100)
180 (100)
30 (70)
Rock Creek Pkwy.
Manlove Rd.
370 (430)
70 (150)
50 (20)
S. Watt Ave.
30 (60)
3,780 (3,220)
60 (40)
18. Kiefer Blvd./S. Watt Av
260 (210)
2,150 (2,790)
410 (680)
Kiefer Blvd.
210 (280)
420 (910)
110 (260)
S. Watt Ave.
240 (150)
LEGEND
Turn Lane
AM (PM) Peak Hour Traffic Volume
Study Intersection
Traffic Signal
Stop Sign
Right-Turn Yield
City of Sacramento
City of Rancho Cordova
Planned Roads
N
NOT TO SCALE
Watt Ave.
La Riviera Dr.
50
Folsom Blvd.
Rosemont Dr.
Huntsman Dr.
Bradshaw Rd.
Kiefer Blvd.
Julliard Dr.
Notre Dame Dr.
Thornhill Dr.
Jackson Rd.
Excelsior Rd.
Eagles Nest Rd.
Florin Perkins Rd.
S. Watt Ave.
Hedge Ave.
Fruitridge Rd.
14th Ave.
Elder Creek Rd.
Florin Rd.
16
17
18
19
4
5
6
7
8
9
10
11
12

SOUTH WATT AVENUE CORRIDOR OPERATIONS

Future planned land use development and changes to the regional transportation network will generate travel patterns that route much of the traffic in the Jackson Road corridor to South Watt Avenue. As a result, a separate detailed traffic analysis of South Watt Avenue between Jackson Road and US 50 was performed. To accommodate future traffic volumes along this heavily traveled corridor, the County of Sacramento General Plan includes planned grade-separated urban interchanges or high capacity intersections along South Watt Avenue. Urban interchanges or high capacity intersections are proposed for the following locations (see Figure 10):

- South Watt Avenue / Folsom Boulevard (Urban interchange)
- South Watt Avenue / Kiefer Boulevard (High capacity intersection)
- South Watt Avenue / Jackson Road (High capacity intersection)

The urban interchange design used in this study at South Watt Avenue / Folsom Boulevard is consistent with the configuration proposed in the US 50 / Watt Avenue interchange study. This configuration has South Watt Avenue passing under Folsom Boulevard as a four-lane facility with left-side off-ramps and on-ramps for vehicles accessing Folsom Boulevard. BRT service would operate in a median lane with bidirectional operations north of Folsom Boulevard. BRT vehicles traveling south on Watt Avenue would turn left onto Folsom Boulevard and into the Watt/Manlove light rail station.

At the South Watt Avenue / Kiefer Boulevard intersection, the urban interchange design studied was a tight diamond configuration. South Watt Avenue would pass under Kiefer Boulevard with BRT operating in exclusive median lanes. A BRT station in the median could be accessed from the Kiefer Boulevard overpass similar to the I-80 / Watt Avenue light rail station.

At the South Watt Avenue / Jackson Road urban intersection the urban interchange design studied was a single-point urban interchange (SPUI). North and south of the interchange, South Watt Avenue would be a six-lane facility. South Watt Avenue would pass under Jackson Road as a four-lane facility. BRT vehicles would operate in exclusive median lanes north of Jackson Road and transition into mixed-flow lanes south of Jackson Road.

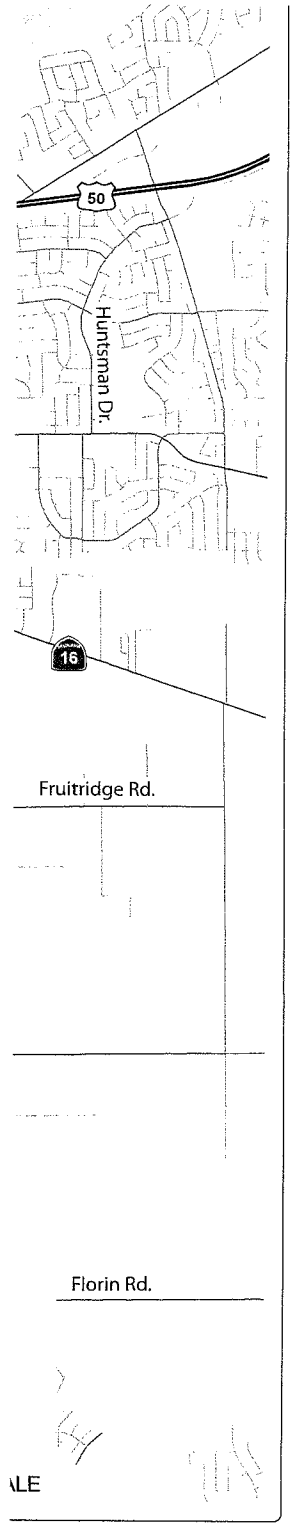
Urban interchanges along South Watt Avenue would be a high-cost improvement to relieve traffic congestion. While constructing urban interchanges may improve operations at a few congested locations, it may simply result in shifting congestion to a downstream location. Several at-grade signalized intersections would remain, including those at the US 50 / Watt Avenue interchange, South Watt Avenue / Manlove Road, and South Watt Avenue / Canberra Drive. To determine the effectiveness of the proposed urban interchanges, this study evaluated corridor operations along South Watt Avenue from US 50 to Jackson Road for the following two scenarios:

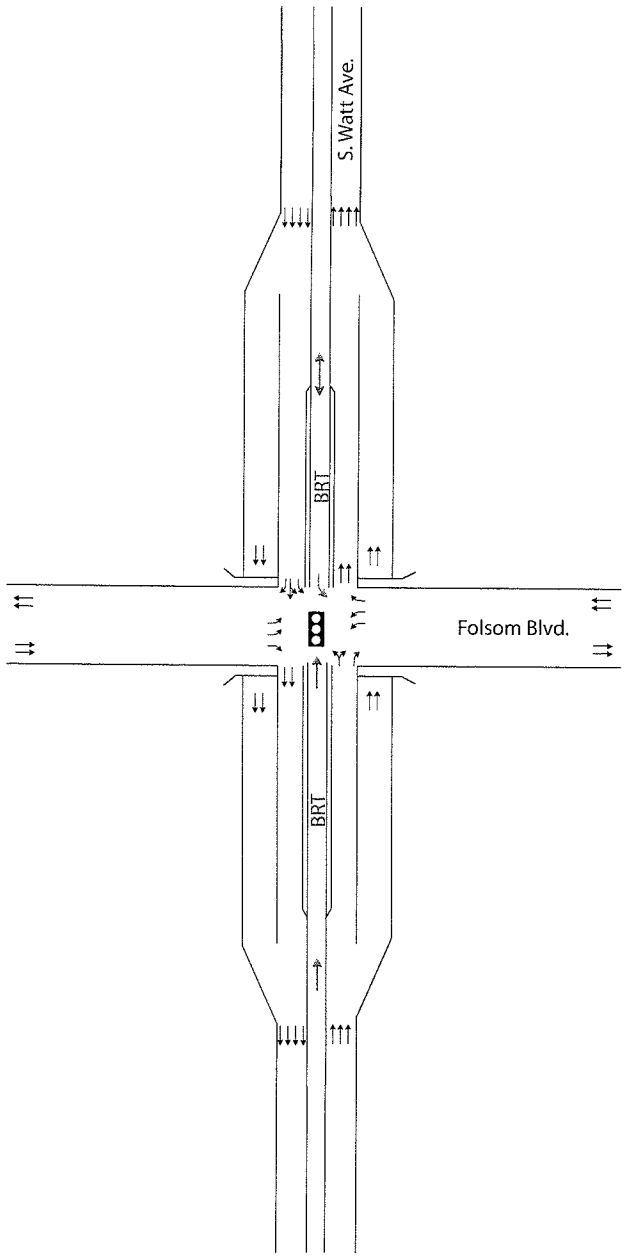
- At-grade intersections
- Urban interchanges along South Watt Avenue

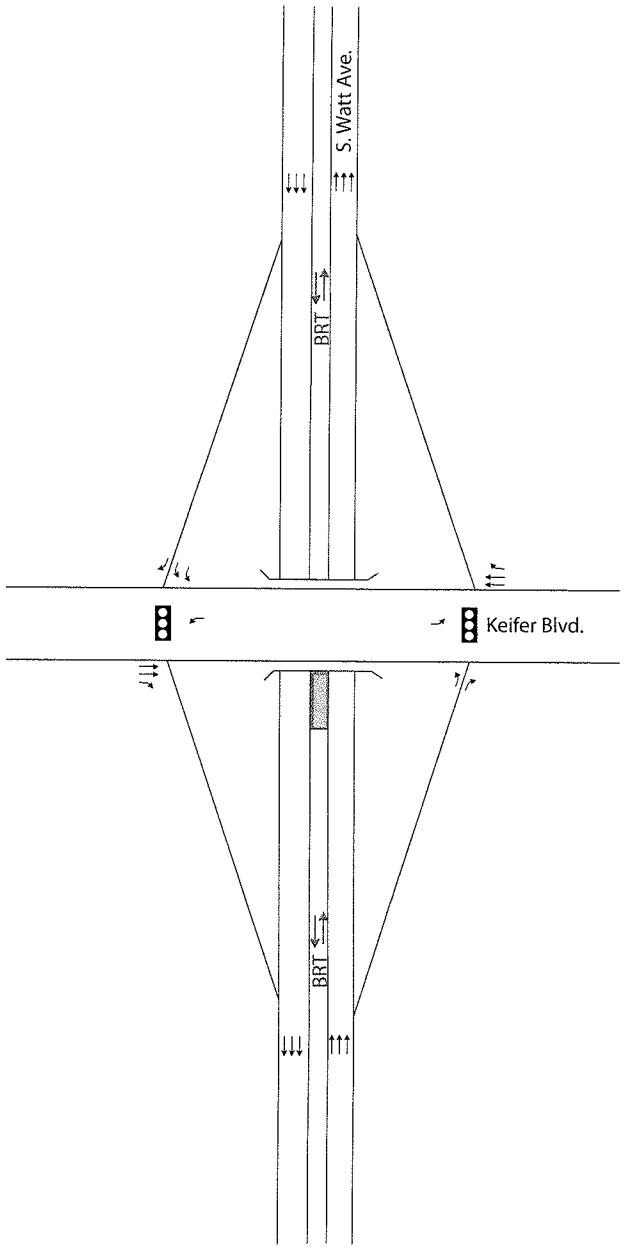
This evaluation uses VISSIM micro-simulation software to analyze corridor operations using the following metrics:

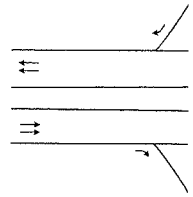
- Travel Time
- Average Speed
- Percent Demand Served
- Vehicle Hours of Delay (VHD)

Traffic simulation, such as VISSIM, provides the following advantages compared to typical traffic analysis methods.


50
Huntsman Dr.
16
Fruitridge Rd.
Florin Rd.


S. Watt Ave.
BRT
Folsom Blvd.
BRT


S. Watt Ave.
BRT
Keifer Blvd.
BRT



- Accounts for system bottlenecks that constrain traffic from downstream locations or back up traffic into upstream locations
- Models transit lines, transit stops, and transit signal preemption
- Models pedestrian and vehicle interaction at pedestrian crossings
- Provides network-wide measures of effectiveness
- Evaluates unusual or unique intersection and interchange configurations more accurately

Evaluation Results

Table 11 details the results of the South Watt Avenue corridor evaluation. Overall, the grade-separated urban interchange alternative provides operational benefits over the at-grade alternative during both the AM and PM peak hours. The grade-separated alternative shows lower travel time and vehicle delay and higher average speed and percent demand served on the corridor.

The operational benefits are more pronounced for southbound than northbound South Watt Avenue due to heavier northbound traffic volumes and a downstream bottleneck at the US 50 interchange, particularly during the PM peak hour. As shown in Table 11, while the average speeds for the less congested southbound direction approximately double with the urban interchanges to 30 mph, the more congested northbound average speeds only increase from about 7 mph to 9 or 10 mph.

TABLE 11:
SOUTH WATT AVENUE CORRIDOR OPERATIONS

		At Grade Intersections				Grade Separated Urban Interchanges			
Peak Hour	**Direction**	**Travel Time**	**Avg. Speed**	**% Demand Served**	**VHD[1]**	**Travel Time**	**Avg. Speed**	**% Demand Served**	**VHD[1]**
AM Peak Hour	Northbound	16:35	7.3 mph	73.4%	2,440	12:10	10.0 mph	83.9%	1,460
	Southbound	6:50	18.0 mph			4:00	30.2 mph		
PM Peak Hour	Northbound	19:20	6.3 mph	68.6%	3,560	13:55	8.9 mph	80.4%	2,470
	Southbound	9:00	13.4 mph			4:00	30.0 mph		

Notes: [1]VHD = total vehicle hours of delay
Source: Fehr & Peers, 2012

Traffic flow northbound is also congested in part due to weaving movements on the section between Manlove Road and Folsom Boulevard. With only two through lanes under Folsom Boulevard, vehicles traveling north to US 50 must merge right to continue through on Watt Avenue while vehicles wanting to exit at Folsom Boulevard must weave into the left lane.

Funding Considerations and Alternatives

The 2008 MTP (Metropolitan Transportation Plan for 2035) identifies funding for the South Watt Avenue / Folsom Boulevard urban interchange. However, the urban interchanges at Kiefer Boulevard and Jackson Road are currently unfunded. The at-grade operational results presented in Table 8 show that the Watt Avenue / Folsom

Boulevard intersection has the highest level of delay along the corridor. The VISSIM traffic simulation shows that congestion at this intersection affects operations at upstream intersections.

A potential alternative is to provide a grade-separated urban interchange at Folsom Boulevard and maintain the planned at-grade intersections at Kiefer Boulevard and Jackson Road. The urban interchange at Folsom Boulevard would provide some operational benefit, as described above, while delays incurred at the at-grade intersections at Kiefer Boulevard and Jackson Road would meter traffic into the corridor. Should delays at Kiefer Boulevard and/or Jackson Road increase to unacceptable levels, lower cost alternative improvements, have been considered in place of a higher-cost full urban interchange to achieve LOS E or better intersection operations as discussed in the following section.

Jackson Road and South Watt Avenue Intersection

The processing of the Aspen 1 development proposal in the southwest quadrant of the Jackson Road and South Watt Avenue intersection in the City of Sacramento has necessitated the determination of the intersection footprint and lane configuration to accommodate forecasted traffic demands (year 2035) at LOS E at the South Watt Avenue/Jackson Road intersection. This study evaluated six options for the intersection lane configuration:

- **Alternative 1** - Standard County of Sacramento six-by-six at-grade intersection lane configuration (two left-turn, three through and one right-turn lanes on each approach
- **Alternative 2** - Grade separated intersection (single point urban interchange configuration)
- **Alternative 3** - Standard County of Sacramento six-by-six at-grade intersection with a free westbound Jackson Road to northbound South Watt Avenue right-turn lane
- **Alternative 4** - Standard County of Sacramento six-by-six at-grade intersection with a free westbound Jackson Road to northbound South Watt Avenue right-turn lane and triple left-turn lanes on the southbound South Watt Avenue intersection approach with a grade separation between the pedestrian crossing and right-turn lane.
- **Alternative 5** - Standard County of Sacramento six-by-six at-grade intersection with a dual westbound Jackson Road to northbound South Watt Avenue right-turn lanes and triple left-turn lanes on the southbound South Watt Avenue intersection approach
- **Alternative 6** - A six-by-six at-grade intersection with triple left-turn lanes on the southbound South Watt Avenue approach and a tunnel for the westbound Jackson Road to northbound South Watt Avenue movement

Results of the intersection operation analysis indicate that the intersection would operate at an acceptable level of service for all of the intersection lane configurations except for the standard Sacramento County six-by-six lane configuration represented by Alternative 1. Weighing factors such as intersection operations, costs of implementation, conflicts with utilities, alternative mode operations, and access to existing and planned land uses at the intersection, either Alternative 5 or Alternative 6 is recommended as the preferred intersection lane configuration. The right-of-way needed to construct Alternative 5 would also allow the implementation of Alternative 6, except within the southeast and southwest quadrants of the intersection. Alterative 5 would require the most right-of-way in the northwest and northeast quadrants of the intersection. Alternative 6 would require the most right-of-way in the southeast and southwest quadrants. Thus, it is recommended the right-of-way needed to implement Alternative 6 be reserved in the southwest and southeast quadrants of the intersection, and the right-of-way needed to implement Alternative 5 be reserved in the northwest and northeast quadrants.

Table 12 shows the proposed lane configurations and operational analysis results. The operational analysis results reflect potential future bus rapid transit (BRT) operations on South Watt Avenue by providing a "BRT phase" for northbound and/or southbound BRT vehicles.

TABLE 12
JACKSON ROAD / SOUTH WATT AVENUE ALTERNATIVES
INTERSECTION OPERATIONS – CUMULATIVE CONDITIONS

	Alternative 1 County Standard		Alternative 2 Single Point Interchange		Alternative 3 6x6 with WB Free Right		Alternative 4 6x6 with WB Free Right and SB 3 Lefts		Alternative 5 6x6 with WB Dual Rights and SB 3 Lefts		Alternative 6 6x6 with WB Right Tunnel and SB 3 Lefts	
Peak Hour	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
AM	**110**	**F**	23	C	79	E	58	E	63	E	66	E
PM	**85**	**F**	25	C	66	E	55	E	58	E	63	E

Source: Fehr & Peers, 2012

The results in Table 12 show that all intersection alternatives improve vehicle traffic operations to LOS E. Each of the at-grade alternatives (Alternatives 3 – 6) generates benefits and impacts to non-auto modes and local access that should be considered. All alternatives result in the elimination of left-turn access from South Watt Avenue to the apartment complex in the northeast quadrant of the South Watt Avenue / Jackson Road (SR 16) intersection.

ALTERNATIVE 1

This alternative results in the smallest right-of-way intersection footprint of the at-grade intersection alternatives. However, it operates at LOS F during both the AM and PM peak hours.

Because this alternative does not meet the goal operating level of service of LOS E this alternative was rejected.

ALTERNATIVE 2

This alternative would construct the South Watt Avenue / Jackson Road urban intersection as a single-point urban interchange (SPUI) (See Figure 10). North and south of the interchange, South Watt Avenue would be a six-lane facility. South Watt Avenue would pass under Jackson Road as a four-lane facility. BRT vehicles would operate in exclusive median lanes north of Jackson Road and transition into mixed-flow lanes south of Jackson Road.

This alternative results in the largest right-of-way intersection footprint of the at-grade intersection alternatives. However, it would provide the best vehicle level of service (LOS C during both the AM and PM peak hours). The design would result in limiting access to parcels in the intersection area. This alternative would be the most costly option to construct. The SPUI design results in "free" right-turns. Free right-turns create an unfavorable environment for cyclists and pedestrians. On the receiving leg, cyclists can experience potentially hazardous conditions with through traffic on one side and merging vehicles from the acceleration lane on the other. For pedestrians, the constant flow of traffic in the "free" right-turn lane may limit the number of gaps to reach the refuge island, and creates the potential for a higher speed collision if a vehicle fails to yield to a pedestrian in the

crosswalk. To provide adequate gaps in the traffic flow might require the installation of a pedestrian phase to cross the "free" right-turn lane traffic flows. This would decrease the effectiveness of the "free' right-turn lane. A second option would be to grade separate the pedestrian movements from the right-turn vehicles. This could be done by depressing the right-turn lane and raising the pedestrian crossing as an overcrossing of the right-turn lane or by raising the right-turn lane and depressing the pedestrian crossing under the right-turn lane. This alternative would take additional right-of-way to bring the pedestrian up to or down to grade and to locate the right-turn lane to provide enough room to accommodate the pedestrian path. A third option would be to provide pedestrian overcrossings of the intersection on the northern and eastern pedestrian crossing movements. The overcrossings would separate pedestrians and vehicle movements reducing conflict points between the two. To meet Americans with Disabilities Act (ADA) requirements would necessitate either long (approximately 340 foot) approaches or circular approaches. Implementation of the pedestrian overcrossings would require additional right-of-way in the northwest, northeast and southeast corners on the intersection. The pedestrian overcrossings do not address the bicycle/vehicle conflicts and may introduce visual impacts by blocking the view between the roadway and adjacent business frontages.

Because of the cost, right-of-way needs, and impacts to pedestrian and bicycle users this alternative was rejected.

ALTERNATIVE 3

This alternative results in the smallest right-of-way increase when compared to Alternative 1. To improve operations, this alternative proposes a "free" westbound right-turn lane in lieu of a right-turn lane with an overlap phase. As shown in Table 12, this would improve operations to the LOS E during both the AM and PM peak hours. By eliminating the need for an overlap phase, it would be feasible to permit southbound u-turns, a potential improvement to accessing adjacent parcels.

While the overall intersection operates at LOS E, the southbound left-turn movement would experience heavy delays and lengthy queues due to heavy demand. Even with substantial green-time, the dual left-turn lanes are over capacity and would result in long vehicle queues that could interfere with traffic in the southbound through lanes.

Furthermore, the reduction in overall intersection delay due to the "free" right-turn may be overstated. Observations of "free" right-turns in Roseville and Folsom show that drivers occasionally yield to traffic on the receiving leg or stop in the acceleration lane to find a gap. This reduces the operational benefits of "free" right-turn lanes and creates potential vehicle collision hazards. The "free" right-turn movement also requires a receiving/acceleration lane, which entails additional right-of-way on the receiving leg.

Free right-turns also create an unfavorable environment for cyclists and pedestrians. On the receiving leg, cyclists can experience potentially hazardous conditions with through traffic on one side and merging vehicles from the acceleration lane on the other. For pedestrians, the constant flow of traffic in the "free" right-turn lane may limit the number of gaps to reach the refuge island, and creates the potential for a higher speed collision if a vehicle fails to yield to a pedestrian in the crosswalk. To provide adequate gaps in the traffic flow might require the installation of a pedestrian phase to cross the "free" right-turn lane traffic flows. This would decrease the effectiveness of the "free' right-turn lane. A second option would be to grade separate the pedestrian movements from the right-turn vehicles. This could be done by depressing the right-turn lane and raising the pedestrian crossing as an overcrossing of the right-turn lane or by raising the right-turn lane and depressing the pedestrian crossing under the right-turn lane. This alternative would take additional right of way to bring the pedestrian up to or down to grade and to locate the right-turn lane to provide enough room to accommodate the pedestrian path. A third option would be to provide pedestrian overcrossings of the intersection on the northern and eastern

pedestrian crossing movements. The overcrossings would separate pedestrians and vehicle movements reducing conflict points between the two. To meet Americans with Disabilities Act (ADA) requirements would necessitate either long (approximately 340 foot) approaches or circular approaches. Implementation of the pedestrian overcrossings would require additional right-of-way in the northwest, northeast and southeast corners on the intersection. The pedestrian overcrossings do not address the bicycle/vehicle conflicts and may introduce visual impacts by blocking the view between the roadway and adjacent business frontages.

Because of the unacceptable operations for the southbound left-turn movement this alternative was rejected.

ALTERNATIVE 4

This alternative generally provides the best vehicle operations of the at-grade intersection alternatives by providing three southbound left-turn lanes and a "free" westbound right-turn lane. The additional southbound left-turn lane reduces the queuing and delay experienced under Alternative 3. The third southbound left-turn lane would require additional right-of-way north of the intersection, but installation of the lane could be phased in as needed. As with Alternative 3, the "free" right-turn lane eliminates the need for an overlap phase, which would also make it feasible to permit southbound u-turns.

The "free" right-turn lane in this alternative would generate the same potential for collisions and unfavorable cycling and pedestrian conditions identified in Alternative 3. As with Alternative 3, a solution would be to grade separate the pedestrian movements from the right-turn vehicles. This could be done by depressing the right-turn lane and raising the pedestrian crossing as an overcrossing of the right-turn lane or by raising the right-turn lane and depressing the pedestrian crossing under the right-turn lane. This alternative would take additional right-of-way to bring the pedestrian up to or down to grade and to locate the right-turn lane such as it would provide enough room to accommodate the pedestrian path. An option would be to provide pedestrian overcrossings of the intersection on the northern and eastern pedestrian crossing movements. The overcrossings would separate pedestrians and vehicle movements reducing conflict points between the two. To meet Americans with Disabilities Act (ADA) requirements would necessitate either long (approximately 340 foot) approaches or circular approaches. Implementation of the pedestrian overcrossings would require additional right-of-way in the northwest, northeast and southeast corners on the intersection. The pedestrian overcrossings do not address the bicycle/vehicle conflicts and may introduce visual impacts by blocking the view between the roadway and adjacent business frontages.

Because of impacts to pedestrian and bicycle users this alternative was rejected.

ALTERNATIVE 5

This alternative has the largest footprint of the at-grade intersection alternatives, which has the following affects:

- Potential right-of-way impacts and higher construction costs to provide three southbound left-turn lanes and two westbound right-turn lanes
- Larger footprint will translate to longer pedestrian crosswalks, which increases pedestrian crossing times and exposure to potential conflicts with vehicles

To facilitate the westbound right-turn movement, an overlap phase is preferable, although not required, to achieve an acceptable LOS. Implementing the overlap phase would require the elimination of southbound u-turns, which may reduce access to adjacent parcels.

Similar to the "free" right-turn movement, the proposed westbound dual right-turn lanes may create unfavorable conditions for cyclists and pedestrians. Cyclists continuing through on westbound Jackson Road would face a larger conflict zone needing to cross two lanes of traffic, which can be a very intimidating movement for all but the most experienced bicyclist. This conflict area could be reduced by having a staggered right-turn pocket design that starts as one right-turn lane that widens to two lanes in the right-turn pocket area.

At the intersection, it is often difficult for a vehicle in the second right-turn lane to see pedestrians crossing the intersection in the westbound direction. When pedestrian movements and the right-turn movement share the same signal phase, a vehicle in the inside right-turn lane may yield to a pedestrian, but the vehicle in the outside right-turn lane may not be aware of the pedestrian creating a potential safety hazard. However, compared to the "free" right-turn operations in Alternatives 3 and 4, dual right-turn lanes may provide some safety benefit by limiting the vehicle-pedestrian conflict timeframe to the shared signal phase. A method to reduce this conflict would be to provide pedestrian overcrossings of the intersection on the northern and eastern pedestrian crossing movements. The overcrossings would separate pedestrians and vehicle movements reducing conflict points between the two. To meet Americans with Disabilities Act (ADA) requirements would necessitate either long (340 foot) approaches or circular approaches. Implementation of the pedestrian overcrossings would require additional right-of-way in the northwest, northeast and southeast corners on the intersection and may introduce visual impacts by blocking the view between the roadway and adjacent business frontages.

ALTERNATIVE 6

This alternative has a larger footprint than Alternative 5 in the southeast and southwest quadrants on the intersection. This is primarily due to the additional right-of-way required to accommodate the tunnel entrance.

This alternative generally provides similar vehicle operations as shown by Alternatives 4 and 5 by providing three southbound left-turn lanes and a free westbound right-turn lane in a tunnel. Access to the tunnel would require a non-standard entry. The entry would be from the left (median) lane rather than the right (curb) lane. The tunnel exit would become the median lane for northbound South Watt Avenue. The intersection design includes a right-turn lane for the westbound Jackson Road approach to provide for vehicles that miss the tunnel entrance. The additional southbound left-turn lane reduces the queuing and delay experienced under Alternative 3. The third southbound left-turn lane would require additional right-of-way north of the intersection, but installation of the lane could be phased in as needed. As with Alternative 3, the right-turn lane tunnel eliminates the need for an overlap phase, which would also make it feasible to permit southbound u-turns. Alternative 6 can be accommodated in the right-of-way footprint needed to implement Alternative 5, except within the southeast quadrant of the intersection where additional right-of-way would be required. This alternative would allow a phased implementation of intersection improvements.

The construction of a tunnel for the westbound right-turn movement would virtually eliminate the conflict between right-turn vehicles and pedestrians and bicycles identified in Alternatives 2, 3, 4 and 5. Construction of a tunnel would introduce additional construction and maintenance costs compared to the at-grade alternatives (Alternative 1, 3, 4, and 5).

New Access Locations

Conversion of existing agricultural/industrial/mining land uses to urban uses will require additional access to Jackson Road. Until the corridor is relinquished all new access requests will need to follow the Caltrans encroachment permit process. This study identified the following major (signalized) access locations:

A. Future Rock Creek Parkway / Jackson Road (Sta: 157.00)
B. Aspen 1 Access / Jackson Road (Sta. 166.50)
C. Realigned Mayhew Road / Jackson Road (Sta. 270.50)
D. Access Road / Jackson Road (Sta. 297.00)
E. Vineyard Road extension / Jackson Road (Sta. 330.25)
F. Access Road / Jackson Road (Sta. 348.80)
G. Access Road / Jackson Road (Sta. 372.70)
H. Access Road / Jackson Road (Sta. 381.50)
I. Excelsior Estates Access Road / Jackson Road (Sta. 452.00)

The proposed access locations are shown on Figure11 and the improvement plans in Appendix A.

CONCLUSIONS

The determination of the Jackson Road cross-section alternative used to establish the corridor right-of-way needs was based on traffic operations, transit ridership potential and operations, and impacts to existing land uses.

The difference in vehicle (automobile) intersection and roadway segment operations between roadway cross-section Alternative 2 and Alternative 4 is minor. The roadway segment operations are the same between the two alternatives. The intersection operations are slightly worse for Alternative 4 for the intersections on Jackson Road between South Watt Avenue and Sunrise Boulevard. The difference in intersection operations is due to the "queue jumping" capabilities for transit vehicles allowed in Alternative 4 which adds delay to the vehicle operations. Transit operations are better with Alternative 2 because of the bus only lanes.

In Alternative 4, BRT service would be shifted from Jackson Road to the future Rock Creek Parkway. BRT operations in Rock Creek Parkway would be in exclusive lanes between South Watt Avenue and the extension of Vineyard Road. This route would be longer than a BRT route on Jackson Road but the intersection operations on Rock Creek Parkway will be greatly improved so the overall travel time between the two routes should be similar. The Rock Creek Parkway route will be accessible to a larger number of transit patrons so the ridership will be higher with Alternative 4 than what could be expected by a BRT route on Jackson Road.

Because the Alternative 4 cross-section requires less width (16 feet) than the Alternative 2 cross-section, it has fewer impacts on existing development and would require less fill of mining excavation areas.

Alternative 4 best meets the purpose and need indentified in Section 1; therefore it was used to establish the corridor right-of-way needs (See Appendix A).

At the South Watt Avenue / Jackson Road intersection, Alternatives 5 and 6 best meet the desired operations for the intersection. Alternative 6 can be accommodated within the right-of-way needed in implement Alternative 5 in the northwest and northeast quadrants. In the southeast and southwest quadrants additional right-of-way will be needed to implement Alternative 6. By requiring the right-of-way required for Alternative 5 in the northerly quadrants and Alternative 6 on the southerly quadrants the improvements to the intersection can be phased. The ultimate grade separation of the westbound right-turn movement would virtually eliminate conflicts between westbound right-turn vehicles and pedestrians and bicyclists. It is recommended the right-of-way needed to

implement Alternative 6 be reserved in the southeast quadrant of the intersection, and the right-of-way needed to implement Alternative 5 be reserved in all other quadrants.

6. CORRIDOR PLAN LINE DESIGN

Wood Rodgers prepared a set of plan view exhibits (see Appendix A) to illustrate the geometrics and right of way required to convert the existing two-lane Jackson Highway (State Route 16) to a Sacramento County six-lane thoroughfare to be re-named "Jackson Road" between Florin-Perkins Road and Eagle's Nest Road. Section 4 (Streets) of the Sacramento County Improvement Standards have been used as the basis of design. Traffic volumes and lane configurations developed in the previous sections of this report have been used to determine the appropriate intersection designs. The purpose of the exhibits is to provide the ultimate roadway geometrics and the required right of way to accommodate the planned build-out of the Jackson Road corridor. A discussion of the concepts for each subsection making up this project follows.

Florin Perkins Road/Jackson Road Intersection to South Watt Avenue/Jackson Road Intersection

The western limit of the Jackson Highway Corridor Study is its intersection with Florin-Perkins Road. Between Florin-Perkins Road and South Watt Avenue, Jackson Highway is currently a two-lane roadway. Jackson Road is planned to be a four-lane arterial throughout City right of way. Approaching the City/County boundary, the roadway is planned to transition to a six-lane thoroughfare in conformance with County of Sacramento standards. Jackson Road will be a six-lane thoroughfare through the South Watt Avenue intersection and will remain a six-lane thoroughfare until it reaches Vineyard Road. Typical roadway cross sections for the City of Sacramento four-lane arterial and the County of Sacramento six-lane thoroughfare can be found on sheet 1 of 25 of the project exhibits.

The future right of way of two new roadways that are proposed as part of the Aspen 1 – New Brighton Tentative Subdivision Map have been shown in the SR 16/Jackson Highway Corridor Study. Those potential new roadways include 14th Street at approximate station 157+00 and the future Aspen 1 entrance at approximate station 166+50.

South Watt Avenue/Jackson Road Intersection

The South Watt Avenue/Jackson Road intersection is forecast to experience high traffic volumes in the 2035 design year. Traffic analysis shows that the intersection would operate at LOS F in the AM and PM peak hours with South Watt Avenue and Jackson Highway modeled as a Sacramento County six-by-six intersection with dual left-turn lanes, three through lanes, and single right-turn lanes on all approaches. The high traffic volumes warranted additional analysis to design the intersection as a "high-capacity" intersection. The analysis involved the evaluation of five high capacity intersection layouts (See Chapter 5 for a description of the five intersection lane configuration alternatives):

A. Triple southbound left-turn lanes with dual westbound right-turn lanes with an overlap phase (Alternative 5)

Traffic analysis shows that the intersection will operate at LOS E in the AM and PM peak hours (Table 12) with a third southbound left-turn lane and a second westbound right-turn lane added to the Sacramento County six-lane thoroughfare roadway section. Sheet 5 of 25 of the Jackson Highway Corridor Study exhibits show this configuration. North of the proposed bus turn out the sidewalk on the northbound side of South Watt Avenue will remain as attached in its current location to minimize impacts to the residential development in the northeast quadrant of the intersection. A 12-foot-wide raised median will be constructed in the northbound approach opposite the third southbound left-turn lane. A pedestrian refuge was considered at this location but is not shown on the exhibit due to a conflict with truck turns. In the westbound direction on Jackson Road a second right-turn lane will be constructed. The exhibit for this intersection shows that the

second right-turn lane will require the acquisition of property from the residential development. Sacramento County standard bus turn-outs will be constructed at all four corners.

Alternative 5 has been incorporated on sheet 5A of the SR 16/Jackson Highway Corridor Study exhibits. As a result of meetings with the project development team, Alternative Two was dropped from further consideration.

B. Six-lane thoroughfare intersection with a grade-separated (tunnel) westbound free-right-turn (Alternative 6)

Wood Rodgers completed a preliminary engineering analysis to address the feasibility of a grade separated westbound free-right-turn lane from Jackson Road to South Watt Avenue. The intersection layout has been incorporated into the SR 16/Jackson Highway Corridor Study as sheet 5A.

The westbound free-right-turn lane is shown to be depressed via a grade separated structure consisting of retained fill and a tunnel. The tunnel would allow pedestrians to cross Jackson Road without having to interact with westbound right-turn vehicles. Right-turn vehicles would be carried in a tunnel that would begin in the median east of the intersection and end in the median through lane north of the intersection.

As shown, the design speed of the right-turn movement would be approximately 30 mph, based on horizontal and vertical curve stopping sight distances. The tunnel design includes allowances for lighting, drainage, ventilation, and vehicle wheel tracking. The tunnel would require increase maintenance costs when compare to the at-grade intersection alternatives.

Jackson Road between South Watt Avenue and Hedge Avenue

Between South Watt Avenue and Hedge Avenue the sidewalk on the westbound side of Jackson Road will remain attached and in its current location to avoid right of way impacts to the adjacent residential development. In order to construct the ultimate six-lane roadway section, the Jackson Road alignment will be shifted southward by introducing a 2000' radius horizontal curve at station 184+64.97, followed by a 204' tangent, followed by a second 2000' radius horizontal curve. The proposed 20' Public Utility and Public Facility Easement (PUPFE) will be located within the existing roadway right of way. Left-turn access will be provided at Thornhill Drive. Other than attached sidewalk in the westbound direction and the location of the associated PUPFE, this segment of roadway conforms to Sacramento County standards for a six-lane thoroughfare.

Hedge Avenue/Jackson Road Intersection

Hedge Avenue will retain its current lane configuration. The curb returns will be reconstructed to conform to the new six-lane thoroughfare Jackson Road. A bus turn out will be constructed in its standard location in the eastbound direction. A near-side bus stop is shown on Jackson Road in the westbound direction due to insufficient right of way in the northwest quadrant of the intersection. In the vicinity of the intersection and in the westbound direction, the proposed PUPFE is located at the existing right of way or the proposed back of walk, whichever is furthest north.

Jackson Road between Hedge Avenue and Harn Drive

Between Hedge Avenue and Harn Drive, Jackson Road will be a six-lane thoroughfare with attached sidewalk on the westbound side and bifurcated walk on the eastbound side. Left-turn access will be allowed into Olympiad Road and Harn Drive.

Jackson Road between Harn Drive and Mayhew Road

Jackson Road will be a Sacramento County standard six-lane thoroughfare between Harn Drive and Mayhew Road. Left-turn access will be provided at Lizwelsh Road.

Mayhew Road/Jackson Road Intersection

Mayhew Road is shown as a four-lane arterial intersecting a six-lane thoroughfare per Sacramento County Standard Detail 4-12. The outside left-turn lane on Mayhew Road is shown striped since only one left-turn lane is warranted by the anticipated traffic volumes. Bus turnouts are shown on all four legs of the intersection. For the purposes of this study, Mayhew Road is shown in its current location. However, it is recognized that the West Jackson Highway Master Plan shows the relocation of Mayhew Road approximately 1400 feet to the east. As entitlements for the new roadway become secured, the Mayhew Road alignment and right of way requirements should be updated.

Jackson Road between Mayhew Road and Bradshaw Road

Jackson Road will be a Sacramento County standard six-lane thoroughfare between Mayhew Road and Bradshaw Road.

Bradshaw Road/Jackson Road Intersection

Bradshaw Road and Jackson Road will be six-lane thoroughfares with dual left-turn lanes and single right-turn lanes in conformance with Sacramento County Standard Detail 4-14. Existing development at the intersection includes gas stations at the southeast and northeast corners, a sewer facility in the northwest corner, and a small commercial building in the southwest corner. At the gas stations the bus turnouts are shown to be located to the east and to the north of the gas stations to avoid impacts. Also, attached sidewalk is proposed instead of bifurcated (detached) sidewalk to minimize encroachment at the gas stations. The sewer facility will incur right of way impacts that may require modification of the at-grade facilities. The small commercial development in the southwest quadrant will likely be removed to construct the ultimate Jackson Road section.

Jackson Road between Bradshaw Road and Excelsior Road

From Bradshaw Road, Jackson Road will continue east as a six-lane thoroughfare. Potential future minor roads are indicated at approximate stations 297+00, 348+80, 372+70, 381+50 and the future extension Vineyard Road is shown at approximate station 330+25. Potential future new road intersections are shown in the West Jackson Highway Master Plan at those locations. At station 343+90.16, a horizontal curve with a 2000' radius is shown to realign Jackson Road to the south to avoid encroachment into the existing Camellia Memorial Lawn cemetery. A 211.9' tangent followed by a second 2000' radius curve is shown to bring the new alignment parallel to the existing alignment. At the cemetery, the north edge of Jackson Road will be entirely within existing State right of way. An attached sidewalk rather than bifurcated sidewalk is shown along the cemetery property to minimize right of way requirements. The PUPFE will not encroach onto the cemetery, but is shown at the edge of and within the existing State right of way. The Jackson Road alignment will remain south of the existing alignment to the Excelsior Road intersection in order to utilize the existing State right of way along the southern side of Jackson Highway at the intersection.

Excelsior Road/Jackson Road intersection

Sheet 17 of 25 shows the proposed Excelsior Road/Jackson Road intersection. This sheet includes hatching that represents the additional right of way required for a median Hi-bus alternative compared to a standard Sacramento County thoroughfare intersection.

The Excelsior Road/Jackson Road intersection has been designed to accommodate high-frequency busses (Hi-bus) that would travel primarily in the mixed-flow lane nearest the median in the eastbound and westbound directions. The concept includes a bus stop in the median west of the intersection. Busses travelling eastbound will enter the bus stop from the outside lane using a 225' bus deceleration taper. Once in the dedicated bus stop the busses will be separated from traffic and will be stopped directly behind the dual left-turn lanes. The concept assumes that the Hi-bus will preempt the traffic signal to give a green light to left-turning traffic; after the left-turning traffic clears the intersection the Hi-bus will proceed east through the intersection via the left-turn lanes and enter a 300' acceleration lane on the opposite side of the intersection where it will gain speed and merge into the mixed-flow lane nearest the median. The merge will occur over 675 feet, corresponding to a 45 mph design speed.

In the westbound direction, the Hi-bus will pass through the intersection and enter the bus stop by using the 228' bus deceleration taper. When stopped, the Hi-bus will be separated from traffic. After passenger loading, the Hi-bus will accelerate and merge into the mixed-flow lane nearest the median by using a 900' bus acceleration lane and lane drop taper.

Pedestrians will access the Hi-bus station by using the crosswalk on the west side of the intersection to cross half the road to a pedestrian refuge in the center median. Pedestrians will then walk in the median from the pedestrian refuge to the Hi-bus station. The median, pedestrian refuge and bus station will be ADA compliant and will include features such as tactile warnings (i.e., ADA truncated domes) and safety railing to ensure pedestrian safety.

An exhibit showing a typical median Hi-bus stop with typical sections, lane width, dimensions, and design assumptions has been included as sheet 24 of 25 in the SR 16/Jackson Highway Corridor Study.

An alternate design that accommodates the Hi-busses in the outside lane was also developed. In this alternative, the Hi-bus stations would be located on the far sides of the intersection in the same location as a typical Sacramento County bus turnout. The Hi-bus would be able to preempt the traffic signal to give the right-turning traffic a green light so the Hi-bus could use the right-turn lane to pass through the intersection and enter the bus stop and station. Rather than bulb-out curb returns at the intersection prior to the bus turn out as shown in Sacramento County Standard Detail 4-14, the curb return would not protrude into the intersection so that busses would have a straight-line path from the right-turn lane to the bus station. After the passengers load the bus it would enter into the outside mixed-flow lane in a similar fashion as a typical Sacramento County bus turn out. A typical design with typical sections, lane widths, dimensions, and design assumptions are included as sheet 25 of 25 in the SR 16/Jackson Highway Corridor Study.

Excelsior Road is a four-lane arterial with dual left-turn lanes and a single right-turn lane in the northbound direction and a single left- and right-turn lane in the southbound direction. Bus turnouts have not been incorporated on Excelsior Road as a result of discussion with the Project Development Team.

Jackson Road between Excelsior Road and Excelsior Estates

Immediately east of the Excelsior Road intersection, the Hi-bus lane drop in the eastbound direction and the westbound lane shift that creates space for the Hi-bus deceleration lane transition back to standard lane widths.

At station 408+02.24 a 2000' radius horizontal curve, a 201.7' tangent followed by a second 2000' radius curve shift Jackson Road back to its existing alignment. Between stations 434+00 and 436+00 and between 445+50 to station 448+80 three residences are assumed to remain in place, so attached sidewalk is proposed to minimize right of way impact to those properties. The Excelsior Estates intersection is proposed to incorporate a second median Hi-bus intersection. As Jackson Road approaches Excelsior Estates the road transitions to a wider section to accommodate the Hi-bus facilities.

Excelsior Estates/Jackson Road intersection

Exhibit sheet 20 of 25 shows the Excelsior Estates/Jackson Road intersection. This sheet includes hatching that represents the additional right of way required for a median Hi-bus alternative compared to a standard Sacramento County thoroughfare intersection.

Similar to the Excelsior Road intersection, Hi-busses would travel primarily in the mixed-flow lane nearest the center median in the eastbound and westbound directions. The concept includes a bus stop in the median west of the intersection. Busses travelling eastbound will enter the bus stop from the outside lane using a 227' bus deceleration taper. Once in the dedicated bus stop the busses will be separated from traffic and will be stopped directly behind the eastbound dual left-turn lanes. The concept assumes that the Hi-bus will preempt the traffic signal to give a green light to the left-turning traffic; after the left-turning traffic clears the intersection the Hi-bus will proceed east through the intersection via the left-turn lanes and enter a 300' acceleration lane on the opposite side of the intersection where it will gain speed and merge into the mixed-flow lane nearest the median. The lane merge will occur over a length of 866 feet.

In the westbound direction, the Hi-bus will pass through the intersection and enter the bus stop using the 225-foot-long bus deceleration taper. When stopped, the Hi-bus will be separated from traffic. After passenger loading, the Hi-bus will accelerate and merge into the mixed-flow lane nearest the median using a 950-foot-long bus acceleration lane and lane drop taper.

Pedestrians will access the Hi-bus station by using the crosswalk on the west side of the intersection to cross half the road to a pedestrian refuge in the center median. Pedestrians will then walk in the median from the pedestrian refuge to the Hi-bus station. The median, pedestrian refuge and bus station will be ADA compliant and will include features such as tactile warnings and safety railing to ensure pedestrian safety.

An alternate design that accommodates the Hi-busses in the outside lane was also developed. In this alternative, the Hi-bus stations would be located on the far sides of the intersection in the same location as a typical Sacramento County bus turnout. The Hi-bus would have the ability to give the right-turning traffic a green light and the Hi-bus would then use the right-turn lane to pass through the intersection and enter the bus station. Rather than bulb-out curb returns at the intersection prior to the bus turn out as shown in Sacramento County Standard Detail 4-14, the curb return would not protrude into the intersection providing busses a straight-line path from the right-turn lane to the bus station. After loading passengers, the bus it would enter into the outside mixed-flow lane in a similar fashion as a typical Sacramento County bus turn out. A typical design with typical sections, lane widths, dimensions, and design assumptions have been included as sheet 25 of 25 in the SR 16/Jackson Highway Corridor Study. This exhibit assumes a four-way intersection.

The Excelsior Estates/Jackson Road intersection consists of three legs. Excelsior Estates will not continue south of Jackson Road. In the eastbound direction, Jackson Road is a six-lane thoroughfare with dual left-turn lanes. In the westbound direction, Jackson Road will have no left-turn lanes and will have a single right-turn lane. A wide 32' raised median will be constructed opposite the eastbound left-turn lanes and the raised median/pedestrian refuge

used to access the bus station. This location was considered for a pedestrian refuge but the refuge was dropped from consideration due to conflicting truck turn movements. Excelsior Estates will have single southbound right- and left-turn lanes and two northbound lanes.

Jackson Road between Excelsior Estates and Eagles Nest Road

Jackson Road is a Sacramento County standard six-lane thoroughfare between Excelsior Estates and Eagles Nest Road.

Eagles Nest Road/Jackson Road intersection

The Eagles Nest Road/Jackson Road intersection will incorporate a third median Hi-bus station. Sheet 22 of 25 shows the proposed layout of the Eagles Nest Road/Jackson Road intersection. This sheet includes hatching that represents the additional right of way required for the median Hi-bus alternative compared to a standard Sacramento County intersection.

Similar to the Excelsior Road and Excelsior Estates intersections, Hi-busses would travel primarily in the mixed-flow lane nearest the center median in the eastbound and westbound directions. As Jackson Road approaches the intersection in the eastbound direction a lane shift is introduced to create space for the bus deceleration taper and median Hi-bus stop and station located west of the intersection. Busses travelling eastbound enter the bus stop from the outside lane using a 227-foot-long bus deceleration taper. Once in the dedicated bus stop the busses will be separated from traffic and will be stopped directly behind the eastbound dual left-turn lanes. After the left-turning traffic clears the intersection the Hi-bus will proceed east through the intersection via the left-turn lanes and enter into a 330' acceleration lane on the opposite side of the intersection where it will gain speed and merge into the mixed-flow lane nearest the median. The lane merge occurs over 675 feet, corresponding to a 45 mph design speed.

One left-turn lane is required in the westbound direction. The lane that would typically be the second left-turn lane has been striped as a bus-only lane. The Hi-bus will pass through the intersection using the bus-only lane and enter the bus stop by using the 225-foot bus deceleration taper. When stopped, the Hi-bus will be separated from traffic. After passenger loading, the Hi-bus will accelerate and merge into the mixed-flow lane nearest the median by using a 900' bus acceleration lane and lane drop taper.

Pedestrians will access the Hi-bus station by using the crosswalk on the west side of the intersection to cross half the road to a pedestrian refuge in the center median. Pedestrians will then walk in the median from the pedestrian refuge to the Hi-bus station. The median, pedestrian refuge and bus station will be ADA compliant and will include features such as tactile warnings and safety railing to ensure pedestrian safety.

An alternate design that accommodates the Hi-busses in the outside lane was also developed. In this alternative, the Hi-bus stations would be located on the far sides of the intersection in the same location as a typical Sacramento County bus turn out. The Hi-bus would preempt the traffic signal to give the right-turning traffic a green light and the Hi-bus would then use the right-turn lane to pass through the intersection and enter the bus station. Rather than bulb-out curb returns at the intersection prior to the bus turn out as shown in Sacramento County Standard Detail 4-14, the curb return would not protrude into the intersection so that busses will have a straight-line path from the right-turn lane to the bus station. After loading passengers, the bus it would enter into the outside mixed-flow lane in a similar fashion as a typical Sacramento County bus turn out. A typical design with typical sections, lane widths, dimensions, and design assumptions have been included as sheet 25 of 25 in the SR 16/Jackson Highway Corridor Study.

Eagles Nest Road is a four-lane arterial north of Jackson Road. The southbound approach of Eagles Nest road will have a trap right-turn lane, a through lane and a left-turn lane. South of Jackson Road, Eagles Nest Road will maintain its current lane configuration of a single southbound through lane and a northbound left-turn lane and a northbound shared right-turn/through lane.

The Eagles Nest Road/Jackson Road intersection is the eastern limit of the SR 16/Jackson Highway Corridor Study. Jackson Road will transition to its current two-lane configuration east of the Eagles Nest Road intersection.

7. RELINQUISHMENT FRAMEWORK

PHASING

As described in the preceding sections of this study, Jackson Road is currently owned and maintained by the State of California as a State Highway, subject to the encroachment and design criteria set forth by Caltrans. Local planning documents related to Jackson Road include the City of Sacramento General Plan which designate it as a four-lane arterial while calling for the use of the 14th Avenue extension from Power Inn Road to Jackson Road as the main route to the US 50/Howe Avenue interchange. In addition, the section of Jackson Road between South Watt Avenue and Grant Line Road is designated as a six-lane arterial/thoroughfare in the County of Sacramento and City of Rancho Cordova General Plans.

In order to implement the design alternative identified within this study, one of the following three scenarios needs to occur.

1. If development proceeds while Jackson Road is still maintained as a State Highway, design exceptions could be needed in order to allow the construction of the roadway sections identified within this report.

2. If development proceeds while Jackson Road is still maintained as a State Highway, the designation of Jackson Road as either a four-lane or six-lane arterial could allow for phasing of improvements on the roadway. The interim design could be a four-lane roadway with raised median and shoulders. This cross-section would be similar to SR 99 through Yuba City. The cross-section would be similar to a state highway, but can be converted to an urban arterial with the construction of frontage improvements. In the City of Sacramento this would generally be curb, gutter, and sidewalks. It might include a small amount of pavement in the Class II bike lane. In Sacramento County and City of Rancho Cordova the frontage improvements would include the outside travel lane, curb, gutter, sidewalk, and any landscaped area. An alternative interim construction of the segments of Jackson Road in the City of Rancho Cordova and Sacramento County would be widening to four-lanes with a wide median (30 feet of more) with construction of the roadway to its ultimate configuration to the outside of the road instead of to the median. In this alternative the median would not be raised.

3. If development proceeds after Jackson Road has been relinquished to local jurisdictions, roadway improvements will be approved consistent with the roadway cross-sections identified within this report.

Relinquishment of Jackson Road from Caltrans to the local jurisdiction could occur under the following scenarios:

1. The facility is widened to a four-lane arterial or through a maintenance project that improves the existing two-lane facility. Widening of Jackson Road (SR 16) is expected to occur as a result of development in the corridor. Funding for the widening to four or more lanes is anticipated to come from local sources.

2. Relinquishment is completed in segments. Logical segments for relinquishment would be:

   US 50/Howe Avenue to South Watt Avenue (City of Sacramento)
   South Watt Avenue to Bradshaw Road (Sacramento County)
   Bradshaw Road to Sunrise Boulevard (Sacramento County)
   Sunrise Boulevard to Grant Line Road (Sacramento County and City of Rancho Cordova)

   This pattern would have relinquishment going from west to east. The segmented approach to relinquishment would be subject to funding issues and future unknowns that could delay implementation of planned modifications to Jackson Road (SR 16). Given what is currently known, this pattern is logical and development is expected to occur from west to east. The exception would be development in the City of Rancho Cordova when development could trigger improvements to Jackson Road between Sunrise

Boulevard and Grant Line Road. Construction of the interim four-lane facility in stages or other improvements in the corridor without relinquishment could require design exceptions from Caltrans design standards in order to construct the roadway to meet City or County design standards.

3. The SR 16 corridor between Power Inn Road and Grant Line Road is relinquished to the local jurisdictions (City of Sacramento, Sacramento County, and City of Rancho Cordova) in the near-term. Caltrans would continue to maintain the corridor at current levels through a maintenance agreement with the local jurisdictions. This option would allow the jurisdictions to apply their design standards to development applications without the additional step of coordinating with Caltrans staff, eliminating the need for Caltrans design exceptions.

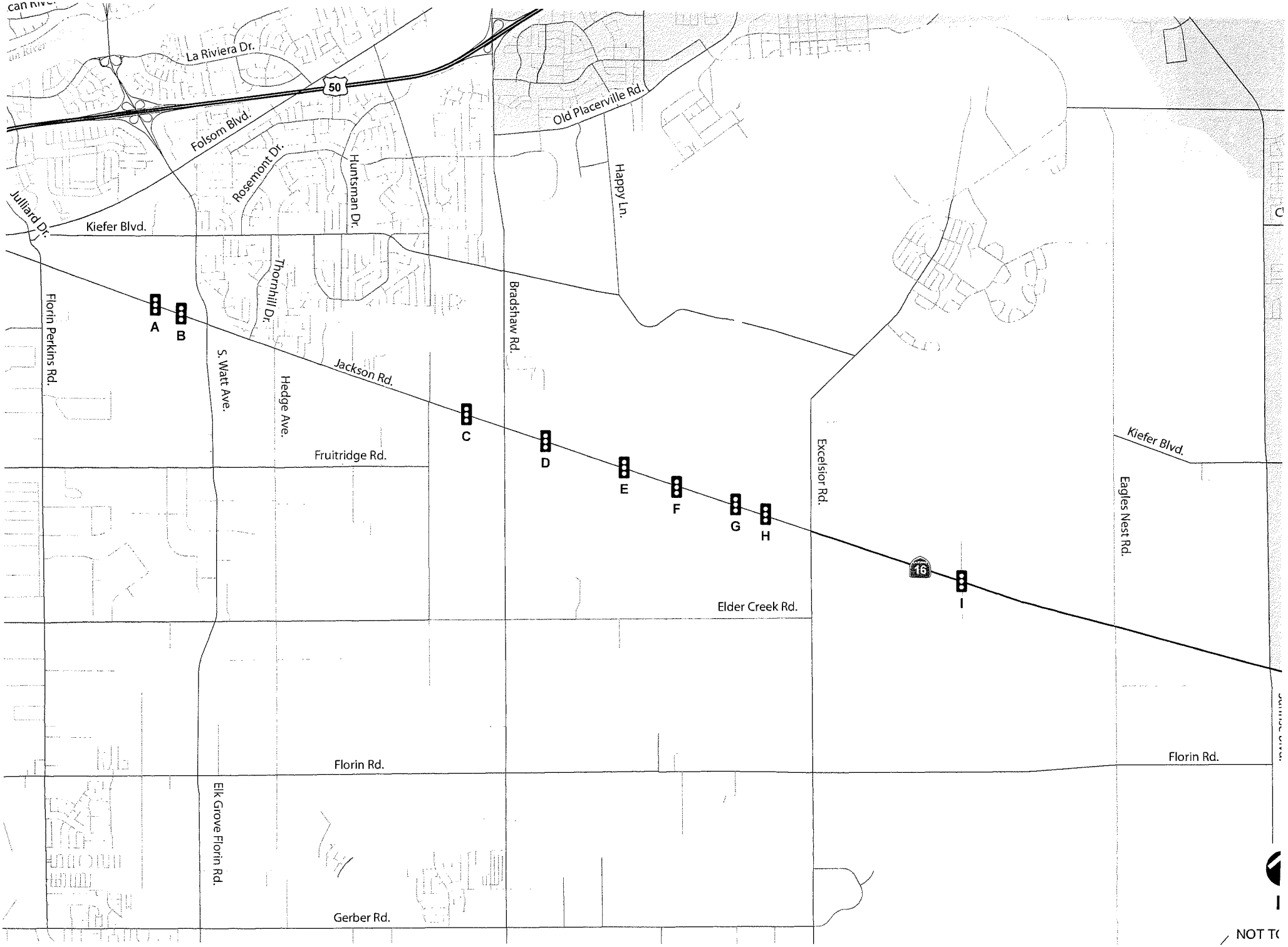
CONCLUSION

Caltrans and the jurisdictions in the corridor (Sacramento County, City of Sacramento, and City of Rancho Cordova) are exploring a relinquishment concept of SR 16 between Power Inn Road and Grant Line Road (option 3). Key aspects of the concept plan are outlined below.

1. Caltrans will relinquish the SR 16 corridor (between Power Inn Road and Grant Line Road) to the jurisdictions.

2. Development of a maintenance agreement between the jurisdictions and Caltrans wherein Caltrans would continue to provide the current levels of maintenance in the corridor. The length of the maintenance agreement and items to be included in the agreement (pavement condition, drainage, traffic signals, stripping, signs, etc.) will be identified.

Relinquishment of the corridor to the jurisdictions will allow the jurisdictions to apply their design standards to development applications without the additional step of coordinating with Caltrans staff, eliminating the need for Caltrans design exceptions. This relinquishment concept would allow for conversion of the corridor from a state highway to a local arterial in the near-term, consistent with the concepts presented in this report.


La Riviera Dr.
50
Folsom Blvd.
Rosemont Dr.
Huntsman Dr.
Old Placerville Rd.
Happy Ln.
Julliard Dr.
Kiefer Blvd.
Thornhill Dr.
Bradshaw Rd.
Florin Perkins Rd.
S. Watt Ave.
Hedge Ave.
Jackson Rd.
A
B
C
D
E
F
G
H
I
Fruitridge Rd.
Excelsior Rd.
Kiefer Blvd.
Eagles Nest Rd.
16
Elder Creek Rd.
Florin Rd.
Florin Rd.
Elk Grove Florin Rd.
Gerber Rd.

NOT TO

AGENDA TRANSMITTAL FORM

To: **Board of Supervisors**

Date: January 2, 2013

From: Chuck Iley, County Administrative Officer (Department Head - please type)

Phone Ext. _____

Department Head Signature _____

- [x] Regular Agenda
- [ ] Consent Agenda
- [ ] Blue Slip
- [ ] Closed Session

Meeting Date Requested: January 8, 2012

Agenda Title: Sutter Gold Mine

Summary: (Provide detailed summary of the purpose of this item; attach additional page if necessary)
Discussion and possible action relative to a presentation by Mr. David Cochrane regarding recent noise complaints from area residents and proposed monitoring plan to minimize future noise related issues.

Recommendation/Requested Action:

Fiscal Impacts (attach budget transfer form if appropriate)

Staffing Impacts

Is a 4/5ths vote required? Yes ☐ No ☐

Committee Review? N/A ☐

Name

Committee Recommendation:

Contract Attached:	Yes ☐	No ☐	N/A ☐
Resolution Attached:	Yes ☐	No ☐	N/A ☐
Ordinance Attached	Yes ☐	No ☐	N/A ☐

Comments:

Request Reviewed by:

Chairman _____ Counsel _____

Auditor _____ GSA Director _____

CAO _____ Risk Management _____

Distribution Instructions: (Inter-Departmental Only, the requesting Department is responsible for distribution outside County Departments)

FOR CLERK USE ONLY

Meeting Date 1/8/13 Time _____ Item # 10

Board Action: Approved Yes___ No___ Unanimous Vote: Yes___No___

Ayes: _____ Resolution _____ Ordinance _____ Other: _____

Noes _____ Resolution _____ Ordinance _____

Absent: _____ Comments: _____

Distributed on _____

Completed by _____

A new ATF is required from _____ Department

For meeting of _____

I hereby certify this is a true and correct copy of action(s) taken and entered into the official records of the Amador County Board of Supervisors.

ATTEST: _____
Clerk or Deputy Board Clerk

AGENDA TRANSMITTAL FORM

To: **Board of Supervisors**

Date: January 2, 2013

From: Richard M. Forster, Supervisor District II (Department Head - please type)

Phone Ext. _____

Department Head Signature _____

☒ Regular Agenda
☐ Consent Agenda
☐ Blue Slip
☐ Closed Session

Meeting Date Requested: 01/08/13

Agenda Title: Kaiser Permanente

Summary: (Provide detailed summary of the purpose of this item; attach additional page if necessary)
Discussion and possible action relative to approval of the Chairman's signature on a letter of support for Kaiser Permanente to expand its Medi-Cal managed care participation into Amador County.

Recommendation/Requested Action:

Fiscal Impacts (attach budget transfer form if appropriate)

Staffing Impacts

Is a 4/5ths vote required? Yes ☐ No ☐

Committee Review? N/A ☐
Name
Committee Recommendation:

Contract Attached: Yes ☐ No ☐ N/A ☐
Resolution Attached: Yes ☐ No ☐ N/A ☐
Ordinance Attached Yes ☐ No ☐ N/A ☐
Comments:

Request Reviewed by:

Chairman _____ Counsel _____

Auditor _____ GSA Director _____

CAO _____ Risk Management _____

Distribution Instructions: (Inter-Departmental Only, the requesting Department is responsible for distribution outside County Departments)

FOR CLERK USE ONLY

Meeting Date 1/8/13 Time _____ Item # 11

Board Action: Approved Yes___ No___ Unanimous Vote: Yes___ No___

Ayes: _____ Resolution _____ Ordinance _____ Other: _____

Noes _____ Resolution _____ Ordinance _____

Absent: _____ Comments: _____

Distributed on _____

Completed by _____

A new ATF is required from _____ Department For meeting of _____

I hereby certify this is a true and correct copy of action(s) taken and entered into the official records of the Amador County Board of Supervisors.

ATTEST: _____ Clerk or Deputy Board Clerk

Jennifer Burns< jburns@amadorgov.org>

Fwd: Letter of Support for Kaiser Permanente

1 message

Jennifer Burns< jburns@amadorgov.org> Wed, Jan 2, 2013 at 2:42 PM
To: Chuck Iley <ciley@amadorgov.org>, Louis Boitano <LBoitano@amadorgov.org>, Richard Forster <RForster@amadorgov.org>, Lisa Gaebe <Lgaebe@amadorgov.org>

Please advise if you want me to get this on the agenda for next week.

---------- Forwarded message ----------
From: <Bonnie.M.Gore@kp.org>
Date: Wed, Jan 2, 2013 at 2:32 PM
Subject: Letter of Support for Kaiser Permanente
To: jburns@amadorgov.org

Hi Jennifer,

Thank you for taking a few minutes to speak with me this morning. I appreciate your assistance.

We need to have a letter of support by January 14 since the state has a short deadline we must meet. It would be wonderful to have a letter from the Board of Supervisors signed by the chair. If this can be added to the agenda for the January 8 meeting, that would be helpful. However, if it is more expedient to have just Supervisor Forester sign the letter, that works just as well.

Here is the background information. I've also included a sample support letter that you can revise appropriately.

Background:
Kaiser currently contracts with the State agencies: DHCS (Department of Healthcare Services) to provide Medi-Cal managed care in Sacramento county (aka: the Geographic Managed Care Sacramento Medi-Cal contract) and with the Major Risk Medical Insurance Board (MRMIB) for the Healthy Families members, some of whom reside in Placer, Amador and El Dorado counties. Since the State is transitioning Healthy Families members to Medi-Cal managed care, we are applying to participate in those 3 counties where we are not currently contracting for Medi-Cal. If awarded a contract in those counties, our Healthy Families members will be able to keep their Kaiser provider and not disrupt that existing medical relationship.

Other information:
As part of the Healthy Families transition to Medi-Cal managed care, we are applying to participate in Medi-Cal in 3 additional counties (Amador, El Dorado, Placer). The Department of Health Care Services (DHCS) will extend special consideration to health plans which include letters of support from entities which already operate in the expansion counties or which have "direct impact on county health care operations, Safety Net Providers, local clinics and hospitals".

Examples include:

- a letter or resolution from the Board of Supervisors of the expansion county(ies)
- documentation such as endorsements or testimonials within the last year from organizations operating in the county(ies) including mental health plans or alcohol and drug programs and those which service medically indigent or low income populations

Excerpt from the RFA:
15. Additional Special Considerations for Managed Care Expansion

DHCS will give special consideration to managed health care plans that meet all of the following additional requirements:
1. Demonstrated experience in effectively serving Medi-Cal beneficiaries, including diverse populations.
2. Documentation of support in the form of a letter or resolution from the Board of Supervisors of the applied for counties.
3. Documentation of support in the form of a letter or resolution from an Applicant's Governing Board or any entity that has a current financial or operational investment in the Applicant.
4. Successful experience with expansion of managed care to a rural area within the past five (5) years.
5. Have the lowest administrative costs. Applicants are not required to provide documentation for this item. DHCS will base any special consideration for administrative costs on the most recent financial data already filed with DHCS. Applicants are invited to submit supplemental information demonstrating that they should receive special consideration. This is not a pass/fail requirement. Failure to submit the support documentation does not preclude DHCS from issuing a notice of intent to award a contract to that Applicant.

Please let me know if you have any questions.

Bonnie

Bonnie M. Gore
Community and Government Relations Manager
Kaiser Permanente, North Valley
1600 Eureka Road
Roseville, CA 95661

916-474-2019 (8-514-2019)
Bonnie.M.Gore@kp.org

--
Jennifer Burns
Clerk of the Board
Amador County Board of Supervisors
810 Court Street
Jackson, CA 95642
(209)223-6471
jburns@amadorgov.org

Sample Support ltr Amador Co.docx
14K

January 4, 2013

Mr. Ed Glavis
Sr. Vice President and Area Manager
Kaiser Permanente
1600 Eureka Rd.
Roseville, CA 95661

Dear Mr. Glavis:

Kaiser Permanente has indicated its intention to expand its Medi-Cal managed care participation into Amador County. Since many of the impacted members from Healthy Families are already Kaiser Permanente members, we support the ability for county residents to maintain existing relationships with their medical providers. We are supportive of Kaiser Permanente's request to expand your services in Amador County.

Sincerely,

AGENDA TRANSMITTAL FORM

To: **Board of Supervisors**

Date: January 2, 2013

From: Jennifer Burns, Clerk of the Board
(Department Head - please type)

Phone Ext. _____

Department Head Signature _____

☒ Regular Agenda
☐ Consent Agenda
☐ Blue Slip
☐ Closed Session

Meeting Date Requested: 01/08/13

Agenda Title: Minutes

Summary: (Provide detailed summary of the purpose of this item; attach additional page if necessary)
Discussion and possible action relative to approval of the Board of Supervisors Meeting MInutes for December 4, 2012 and December 18, 2012.

Recommendation/Requested Action:

Fiscal Impacts (attach budget transfer form if appropriate)

Staffing Impacts

Is a 4/5ths vote required? Yes ☐ No ☐

Committee Review? N/A ☐
Name _____
Committee Recommendation:

Contract Attached: Yes ☐ No ☐ N/A ☐
Resolution Attached: Yes ☐ No ☐ N/A ☐
Ordinance Attached Yes ☐ No ☐ N/A ☐
Comments:

Request Reviewed by:

Chairman _____ Counsel _____

Auditor _____ GSA Director _____

CAO _____ Risk Management _____

Distribution Instructions: (Inter-Departmental Only, the requesting Department is responsible for distribution outside County Departments)

FOR CLERK USE ONLY

Meeting Date 1/8/13 Time _____ Item # 12

Board Action: Approved Yes___ No___ Unanimous Vote: Yes___ No___

Ayes: _____ Resolution _____ Ordinance _____ Other: _____

Noes _____ Resolution _____ Ordinance _____

Absent: _____ Comments: _____

Distributed on _____

Completed by _____

A new ATF is required from _____
Department
For meeting of _____

I hereby certify this is a true and correct copy of action(s) taken and entered into the official records of the Amador County Board of Supervisors.

ATTEST: _____
Clerk or Deputy Board Clerk