

Appendix A

Acronyms and Abbreviations

APPENDIX A

Acronyms and Abbreviations

| | |
|----------|-------------------------------------------------------------------------------------------------------|
| AB | Assembly Bill |
| AC&W | Aircraft Control and Warning |
| A CHP | Advisory Council on Historic Preservation |
| ACM | asbestos-containing materials |
| ADWF | average dry weather flow |
| AEP | annual exceedance probability |
| AF/year | acre feet per year |
| AFB | Air Force Base |
| AFBCA | Air Force Base Conversion Agency |
| ALUC | airport land use commission |
| ALUP | airport land use plan |
| APE | area of potential effect |
| AQMP | Air Quality Mitigation Plan |
| ARB | Air Resources Board (California) |
| ATCM | Airborne Toxic Control Measure |
| BEPA | Bald Eagle Protection Act (Federal) |
| bgs | below ground surface |
| BMP | best management practice |
| BO | Biological Opinion |
| CAA | Clean Air Act |
| CAAA | Clean Air Act Amendments |
| CAAQS | California Ambient Air Quality Standard |
| CAL FIRE | California Department of Forestry and Fire Protection |
| Caltrans | California Department of Transportation |
| CAPCOA | California Air Pollution Control Officer's Association |
| CBC | California Building Code |
| CCR | California Code of Regulations |
| CDFG | California Department of Fish and Game |
| CEQ | Council on Environmental Quality |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act , also called the Superfund Act |
| CESA | California Endangered Species Act |
| cf | cubic feet |

| | |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CFR | Code of Federal Regulations |
| cfs | cubic feet per second |
| CH ₄ | methane |
| CLUP | Comprehensive Land Use Plan |
| CMUTCD | California Manual on Uniform Traffic Control Devices |
| CNDDDB | California Natural Diversity Database |
| CNEL | community noise equivalent level |
| CNG | compressed natural gas |
| CNPS | California Native Plant Society |
| CO | carbon monoxide |
| CO ₂ | carbon dioxide |
| CO ₂ e | CO ₂ equivalents |
| County | Sacramento County |
| CRPD | Cordova Recreation and Park District |
| CVRWQCB | Central Valley Regional Water Quality Control Board |
| CWA | Clean Water Act |
| CWHR | California Wildlife Habitat Relationships |
| DA | Department of the Army |
| dB | decibels |
| dba | A-weighted decibels |
| dbh | diameter at breast height |
| DHS | Department of Health Services |
| DNL | Also termed L _{dn} , the DNL is the 24-hour day and night A-weighted noise exposure level, which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night. Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises. |
| DO | dissolved oxygen |
| DOC | California Department of Conservation |
| DOF | California Department of Finance |
| DOT | Department of Transportation |
| DPM | diesel particulate matter |
| DPR | Department of Parks and Recreation |
| DTSC | California Department of Toxic Substances Control |
| du | dwelling unit |
| DWR | Department of Water Resources |
| EGUSD | Elk Grove Unified School District |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| EMF | Electric and magnetic fields |
| EPA | U.S. Environmental Protection Agency |
| ESA | Environmental Science Associates |
| ESA | Endangered Species Act |
| ESD | Equivalent Single-Family Dwelling Units |

| | |
|---------------------|------------------------------------------------------------------|
| FAA | Federal Aviation Administration |
| FAR | Federal Aviation Regulations |
| FEMA | Federal Emergency Management Agency |
| FESA | Federal Endangered Species Act |
| FHWA | Federal Highway Administration |
| FIFRA | Federal Insecticide, Fungicide, and Rodenticide Act |
| FIRM | Flood Insurance Rate Map |
| FMMP | Farmland Mapping and Monitoring Program |
| FPPA | Farmland Protection Policy Act |
| FR | Federal Register |
| FTA | Federal Transit Administration |
| GHG | greenhouse gas |
| gpm | gallons per minute |
| HAP | Hazardous Air Pollutants |
| HCD | Department of Housing and Community Development (California) |
| HCM | Highway Capacity Manual |
| Hwy 50 | U.S. Highway 50 (also U.S. 50) |
| Hz | hertz |
| I-80 | Interstate 80 |
| IPCC | Intergovernmental Panel on Climate Change |
| IRP | Installation Restoration Program |
| kV | kilovolts |
| LBP | lead-based paint |
| LEDPA | Least Environmentally Damaging Practicable Alternative |
| LEED | Leadership in Energy and Environmental Design |
| Leq | noise over a specified period of time, typically one hour |
| Lmax | instantaneous maximum noise level for a specified period of time |
| LOS | level of service |
| MAPPA | Mather Airport Planning Policy Area |
| MBTA | Migratory Bird Treaty Act |
| MCL | maximum contaminant levels |
| MEI | Maximally Exposed Individual |
| mg/L | milligrams per liter |
| $\mu\text{g}/\mu^3$ | micrograms per cubic meter |
| MGD | million gallons per day |
| MIST | Mather Internal Study Team |
| MRZ | mineral resource zone |
| N ₂ O | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NAC | Noise Abatement Criteria |
| NAHC | Native American Heritage Commission |
| NCIC | North Central Information Center |

| | |
|-----------------|----------------------------------------------------------|
| NDMA | N-nitrosodimethylamine |
| NEPA | National Environmental Policy Act |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NF ₃ | nitrogen trifluoride |
| NFIP | National Flood Insurance Program |
| NHPA | National Historic Preservation Act |
| NO ₂ | nitrogen dioxide |
| NOAA | National Oceanic and Atmospheric Administration |
| NOI | Notice of Intent |
| NOx | nitrogen oxides |
| NPDES | National Pollutant Discharge Elimination System |
| NPL | National Priorities List |
| NRCS | Natural Resource Conservation Service |
| NRHP | National Register of Historic Places |
| NSA | North Service Area |
| OSHA | Occupational Safety and Health Administration |
| PCB | polychlorinated biphenyls |
| PCE | Primary Constituent Elements |
| PCE | tetrachloroethylene |
| PG&E | Pacific Gas and Electric Company |
| Plan | Mather Specific Plan |
| PM10 | particulate matter of less than 10 microns in size |
| PM2.5 | particulate matter of less than 2.5 microns |
| ppm | parts per million |
| PWWF | peak wet weather flow |
| RCRA | Resource Conservation and Recovery Act |
| RHNP | Regional Housing Needs Plan |
| ROD | Record of Decision |
| ROG | reactive organic gases |
| RT | Sacramento Regional Transit District |
| RWQCB | Regional Water Quality Control Board |
| SAC | Strategic Air Command |
| SACOG | Sacramento Area Council of Governments |
| SACOMC | Sacramento Commission on Mather Conversion |
| SARA | Superfund Amendments and Reauthorization Act |
| SASD | Sacramento Area Sewer District |
| SCEMD | Sacramento County Environmental Management Department |
| SCWA | Sacramento County Water Agency |
| sf | square feet |
| SHPO | State Historic Preservation Officer |
| SIP | state implementation plan |
| SMAQMD | Sacramento Metropolitan Air Quality Management District |

| | |
|-----------------|------------------------------------------------|
| SMFD | Sacramento Metropolitan Fire District |
| SMUD | Sacramento Municipal Utility District |
| SO ₂ | sulfur dioxide |
| SPA | Special Planning Area |
| SPCC | spill prevention, control, and countermeasures |
| SR | State Route |
| SRCS | Sacramento Regional County Sanitation District |
| SRI | Solar Reflective Index |
| SROD | Supplemental Record of Decision |
| SRWTP | Sacramento Regional Wastewater Treatment Plant |
| SSHCP | South Sacramento Habitat Conservation Plan |
| ST | short term |
| SVAB | Sacramento Valley Air Basin |
| SWPPP | stormwater pollution prevention plan |
| SWRCB | State Water Resources Control Board |
| TAC | toxic air contaminants |
| T-BACT | Toxics Best Available Control Technology |
| TCE | trichloroethylene |
| TDS | total dissolved solids |
| TNM | Traffic Noise Model |
| tpd | tons per day |
| TRACON | Terminal Radar Control |
| U.S. 50 | U.S. Highway 50 (also Hwy 50) |
| UCMP | California Museum of Paleontology Collections |
| UDA | Urban Development Area |
| ULI | Urban Land Institute |
| USACE | United States Army Corps of Engineers |
| USB | Urban Services Boundary |
| USC | U.S. Code |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| USNWS | United States National Weather Service |
| v/c | volume-to capacity |
| VA | U.S. Department of Veteran Affairs |
| VELB | valley elderberry longhorn beetle |
| VOC | volatile organic compounds |
| WEAP | Worker Environmental Awareness Training |
| WQC | Water Quality Certification |
| WTP | water treatment plant |
| WWTP | wastewater treatment plant |

Appendix B

Scoping Report

MATHER SPECIFIC PLAN PROJECT

Scoping Report

Prepared for
U.S. Army Corps of Engineers
Sacramento District
1325 J Street, Room 1480
Sacramento, CA 95814
Contact: Kathleen Dadey, (916) 557-7253
email: Kathleen.A.Dadey@usace.army.mil

September 2010



2600 Capitol Avenue
Suite 200
Sacramento, CA 95816
916.564.4500
www.esassoc.com

Los Angeles

Oakland

Olympia

Petaluma

Portland

San Diego

San Francisco

Seattle

Tampa

Woodland Hills

209259

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MATHER SPECIFIC PLAN PROJECT

Scoping Report

Introduction

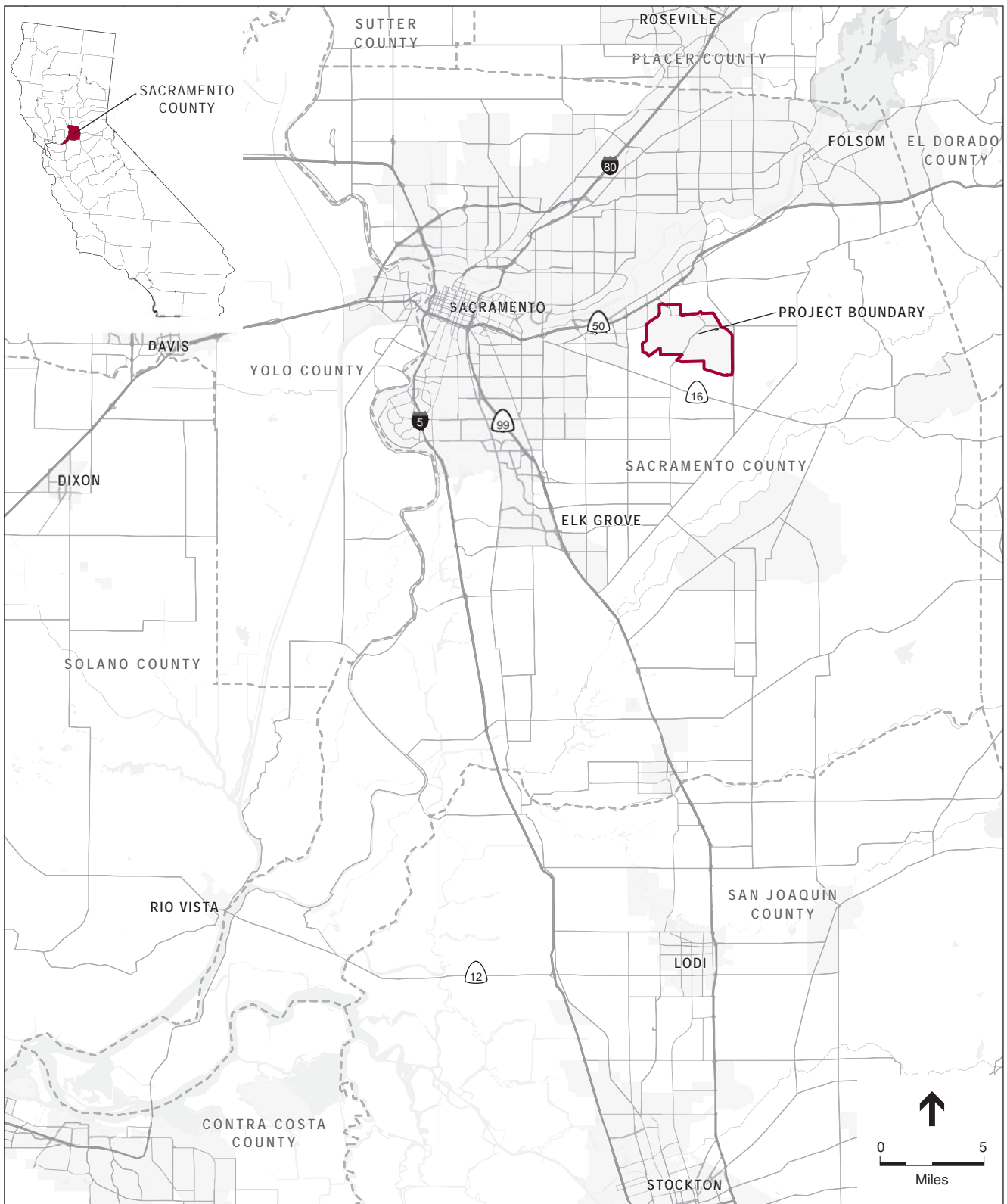
The U.S. Army Corps of Engineers (Corps), Sacramento District is preparing an Environmental Impact Statement (EIS) for the proposed Mather Specific Plan project. The Corps is the lead agency under the National Environmental Policy Act (NEPA). As part of the public involvement process for the EIS, the lead agency asked for input on the scope of the environmental review for the project through a public scoping meeting (January 6, 2010) and a written comment period (December 11, 2009 through January 31, 2010)¹. This report presents a summary of the issues raised during scoping.

Proposed Project and Location

The Sacramento County Department of Economic Development (Applicant) submitted to the Corps seven separate permit applications for implementation of the Plan (i.e., the Applicant's Preferred Alternative). Each application covers one of the seven different proposed land uses within the boundaries of the Mather Specific Plan including airport commercial, commercial development, "economic development" i.e. aggregate extraction, university village/residential, parks/recreation, regional sports park, and infrastructure. Since the submission of the permit applications the acreages associated with the Applicant's Preferred Project have changed. The change in acreages are due to increased detail provided by the Applicant and refinement of GIS data and are consistent with the scale of development considered in the current permit applications. For this reason, the analyses and figures in the EIS and various technical documents show differing acreages as compared to the current permit applications.

The Mather Specific Plan covers approximately 5,749 acres in eastern Sacramento County, California ("Plan Area"). The regional location is shown in **Figure 1**. The Applicant Preferred Project proposes to develop approximately 1,936 acres, and set aside 1,265 acres of wetland preserve/open space as shown in **Figure 2**. The Applicant Preferred Project includes approximately 592 acres of airport commercial (light industrial and airport support), 203 acres of commercial retail, 74 acres of aggregate extraction, 593 acres of university village/residential, 151 acres of parks and recreation, 273 acres for a regional sports park, and 50 acres for roadways and infrastructure.

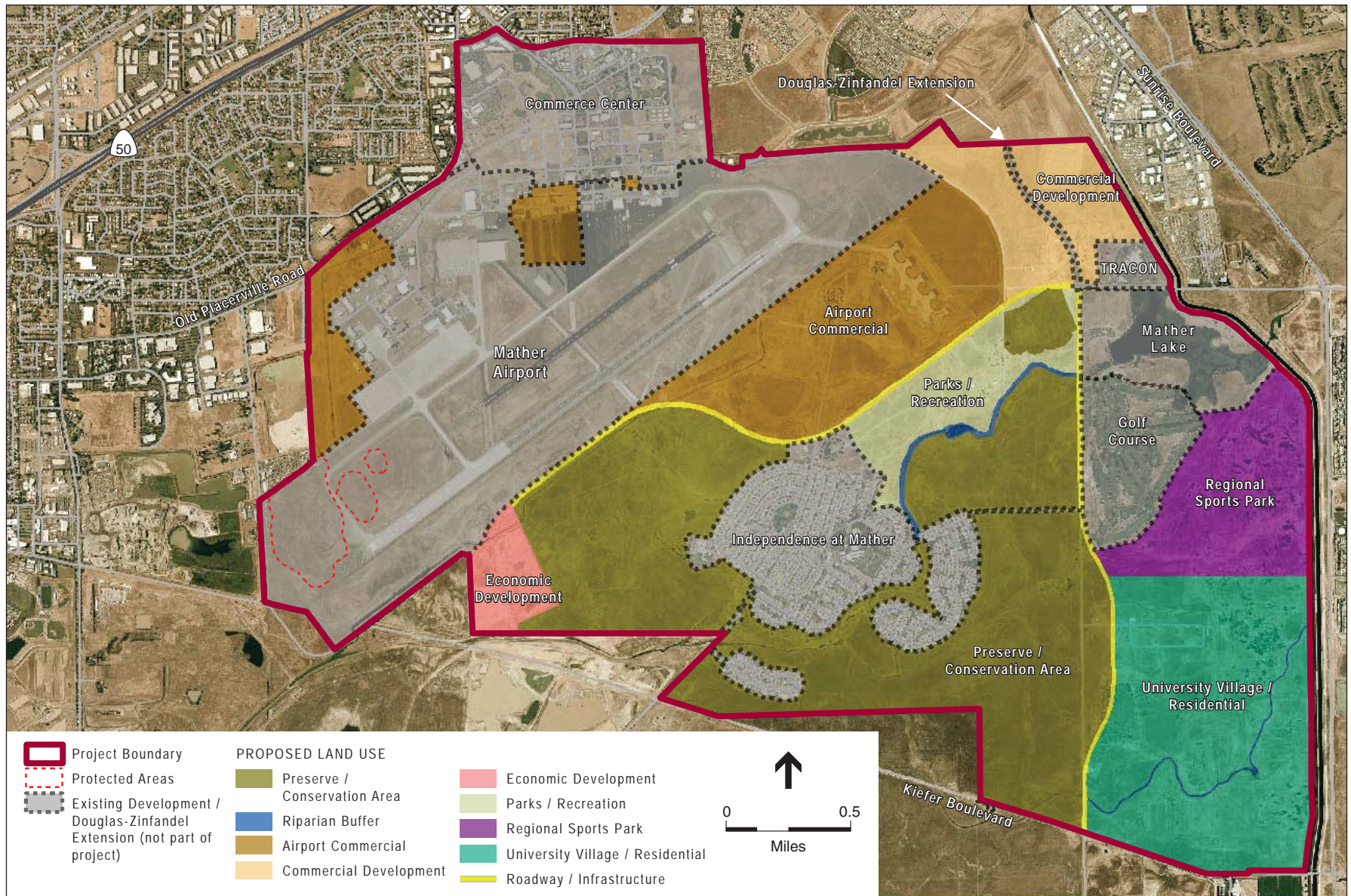
¹ The Notice of Intent printed in the Federal Register states "Scoping comments should be submitted before January 31, 2010, but may be submitted at any time prior to publication of the Draft EIS."



SOURCE: DeLorme Street Atlas USA, 2000; and ESA, 2010

Mather Specific Plan Project Scoping Report . 209259

Figure 1
Regional Location



SOURCE: NAIP, 2006; Sacramento County, 2010; and ESA, 2010

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Figure 2
Applicant Preferred Alternative

Background

Over 2,000 acres are currently developed within the Plan Area. These existing uses include Mather Airport, a commerce center and various other uses north of the airport runway, Federal Aviation Administration's Northern California Terminal Radar Control (or TRACON) facility, Mather Regional Park, and Independence at Mather, a residential development of single-family homes. These existing uses are shown on **Figure 2**.

Mather Airport was previously Mather Air Force Base, which was decommissioned in 1993. The airport was reopened as Sacramento Mather Airport, a public-use air cargo and general aviation airport, in May 1995. Most all-cargo carriers operating at Sacramento International Airport relocated to Mather Airport after its opening. The airport is leased by Sacramento County and operated by the Sacramento County Airport System; it includes two parallel runways and an air cargo ramp space. In addition to air cargo service and general aviation aircraft uses, there are maintenance shops, storage buildings, offices, fuel stations, warehouses and education/training facilities at the airport.

North of the airport runway are various government and commercial facilities, the majority of which were constructed when the site was an active AFB. This area includes Mather Commerce Center with office space, industrial space, medical facilities, and education and retail space. The area includes the U.S. Department of Veteran Affairs Medical Center, which was converted from the former U.S. Air Force Hospital, as well as various County offices.

The Northern California TRACON facility, located just north of Mather Lake provides air traffic control service for major airports in northern California including San Francisco Bay airports, the Monterey/Salinas area, Stockton/San Joaquin Valley and the Sacramento Valley.

Within the eastern portion of the project site is Mather Regional Park, which includes Mather Lake and a public 18-hole golf course. Near the center of the project site is Independence at Mather, a modern residential housing subdivision, which was redeveloped in the location of former AFB housing. Independence at Mather includes 1,271 single-family homes.

The remainder of the project site is currently undeveloped open space. An old landing field containing three parachute landing areas is located just west of the golf course. Sacramento Splash, a non-profit educational organization, provides tours of vernal pools in the open space area for school children and the general public. The Mather Aerospace Modelers utilize a portion of the project site, including a model airplane runway, just east of Eagles Nest Road and approximately 2,000 feet north of Kiefer Boulevard.

A Specific Plan (entitled the Mather Field Specific Plan) was adopted by the Sacramento County Board of Supervisors in May of 1997. The planning document lays out the envisioned transition of the former Mather AFB from military to civilian activities. Prior to development, an updated Mather Specific Plan which addresses recent project modifications will need to be adopted.

Sacramento County has submitted seven permit applications for seven separate land use developments within the Plan Area. An initial application was submitted in May 2008 with a modification submitted

in October 2009. The applications include activities that would result in the discharge of dredged or fill material into approximately 35.4 acres of wetlands and other waters of the U.S. A Department of the Army (DA) permit under Section 404 of the Clean Water Act is required for these types of discharges. The Corps determined that preparation of an EIS was required to meet the requirements of NEPA. A statement of responsibilities between the Corps, Sacramento County Department of Economic Development, and Environmental Science Associates (ESA) for preparing the EIS was subsequently signed.

Notice of Intent/Public Notice

The Corps published a Notice of Intent (NOI) in the Federal Register, Vol. 74, No. 237 on December 11, 2009 (**Appendix A**), to inform agencies and the general public that a Draft EIS was being prepared and invited comments on the scope and content of the document. The NOI also provided information on the date and time of the public scoping meeting. The Corps published a public notice with similar information on their Current Public Notices website: <http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/PNs/index.html> (**Appendix A**). Notice of the scoping comment period and public scoping meeting was provided via legal notice in the *Sacramento Bee* newspaper on December 21, 2009 (see **Appendix A**) and was included on the Mather Neighbors (<http://www.matherneighbors.com/>) and Rancho Cordova Post (<http://www.ranchocordovapost.com/>) online event calendars.

Public Scoping Meeting

The Corps held a public scoping meeting to solicit input from interested parties to be considered in project design, alternatives development, and on the scope and content of the EIS. The meeting was held on January 6, 2010 from 4 p.m. to 7 p.m. at 10590 Armstrong Avenue, Mather, California 95655, in Main Conference Room A. Attendees were given the opportunity to ask questions and to provide written and oral comments. A court recorder was present, though no oral comments were submitted.

Summary of Written Public Comments

To date, three comment letters have been received on the NOI as listed in **Table 1**. The letters are included as **Appendix B**. Comments are summarized below and include the number of the associated comment letter in parenthesis.

TABLE 1
NOI COMMENT LETTERS

| Letter | Name | Organization | Date |
|--------|------------------|--------------------------------------|------------------|
| 1 | Kenneth Sanchez | U.S. Fish and Wildlife Service | January 15, 2010 |
| 2 | Kathleen Goforth | U.S. Environmental Protection Agency | March 12, 2010 |
| 3 | Carol Witham | California Native Plant Society | March 15, 2010 |

Air Quality

- The EIS should assess air quality impacts adequately and describe how impacts will be minimized through mitigation measures. (2)
- The EIS should discuss baseline air quality conditions, describe applicable federal and state air quality regulations and rigorously assess direct, indirect and cumulative effects of the proposed project on air quality. The EIS should address impacts from construction and post construction conditions including increased traffic. (2)
- The EIS should describe specific commitments to mitigate emissions that will prevent further degradation of air quality in the Air Basin, as well as provide a quantitative estimate of the air quality benefits likely to result from each mitigation measure proposed. (2)
- The DEIS should describe the Corps' coordination with EPA, California Air Resources Board, and the Sacramento Metropolitan Air Quality Management District to reduce air quality impacts in the Air Basin. (2)
- The DEIS should explain whether the project will or will not meet general conformity requirements with the state implementation plans for the Air Basin. (2)
- Though the Clean Air Act does not require a federal lead agency to prepare a draft General Conformity Determination as part of the NEPA process, the EPA recommends this in the interest of full public disclosure and to better inform decision making. (2)

Alternatives

- An alternative should be included that protects resources used by Sacramento Splash program; specifically, the “Bomb Pool” east of the munitions storage area. (3)

Aquatic Resources (Including Wetlands and Vernal Pools)

- The County must create a wetland management plan (or enter into a wetland protection agreement) in compliance with the Department of Defense SROD for the base closure and transfer. (2 and 3)
- The EIS should consider unregulated vernal pool losses as documented in the mapping project conducted by Dr. Robert Holland (available at: <http://www.placerlandtrust.org/vernalpoolreport.aspx>). (3)
- The EIS should discuss direct, indirect and cumulative effects of the project on water quality, wetlands and vernal pools. (2)

Biological Resources

- The EIS should include an effects analysis of federally-listed species and designated critical habitat, including a proposed conservation strategy for federally-listed species and discussion of the effects of this project cumulatively with other proposed or upcoming projects. (1)

- A species list should be obtained from the U.S. Fish and Wildlife Services' Sacramento Fish and Wildlife Office website (<http://www.fws.gov/sacramento/>) and the list should be updated every 90 days. (1)
- The U.S. Fish and Wildlife Service is particularly concerned with the effect on four federally-listed vernal pool species and four critical habitat units (listed on page 2 of comment letter 1).
- The EIS should use *The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (U.S. Fish and Wildlife Service, 2005) when evaluating the project and compensation. U.S. Fish and Wildlife Service recommends implementing the strategies in the Recovery Plan. EIS should include implementation and consistency with the Recovery Plan as a conservation measure for impacts to biological resources. (1)
- The County needs to establish provisions for the long-term management of the Preserve (including development of a management plan). Land management responsibilities shall reside with a resource management agency, qualified non-profit organization or appropriate private entity subject to U.S Fish and Wildlife Service approval. Sufficient funding levels with acceptable guarantees shall be provided for ongoing maintenance and stewardship of easement lands. (1)
- EIS should establish performance standards to evaluate the success of the proposed measures, provide a range of options to achieve the performance standards, and commit the lead agency to successful completion of the measures. It is recommended that conservation measures be enforceable and not deferred until a later time. For conservation measures the EIS should identify the following:
 - how each measure will be carried out,
 - who will perform the measures,
 - when the measures will be performed,
 - why the measures are feasible,
 - the performance standards and mechanism for achieving success, and
 - an assured source of funding to manage identified compensation lands. (1)

Climate Change

- The EIS should discuss climate change implications for Mather Lake and Morrison Creek, describe and evaluate the potential impacts of the project in the context of projected climate change effects (changes in temperature and increased frequency of high intensity storms), and consider the consequences of these effects on wetlands and vernal pools and stormwater/sewage treatment capacity. (2)

Cumulative

- The cumulative analysis should consider other EISs being prepared for area projects including the Sunridge Specific Plan, The Preserve (also known as The Ranch or Sunridge 530), Sun-Creek, Heritage Falls, The Arboretum, Rio Del Oro, Cordova Hills, Folsom Sphere of Influence, Glenborough, Easton Place, Excelsior Estates, The Connector and the Kiefer Landfill. (3)

- The cumulative discussion should consider parcels within a 5-mile radius of project where wetland delineations have been received, or for which a pre-application meeting has been held, regardless of status of permit application. (3)

Flooding

- Describe the current Federal Emergency Management Agency (FEMA) floodplain management and insurance regulations and how they may influence land management decisions in the project area. It is recommended that FEMA's Region IX Mitigation Division, Map Modernization Unit be contacted to ensure that the latest regulation guidelines are included. (2)

Mitigation

- Because land [in the Mather Specific Plan] is a public trust resource it should not be used as potential mitigation for the proposed development. (3)

NEPA/EIS Process

- Compliance with 1994 Supplemental Record of Decision (SROD) should be documented before proceeding with NEPA process for actions regarding new development plans for the Mather Specific Plan. (2)

Appendix A

Public Notices



12900 NORTH MERIDAN STREET,
CARMEL, IN
2525 CALIFORNIA STREET, COLUMBUS, IN
7409 EAGLE CREST BLVD, EVANSVILLE, IN
1111 SOUTH PARK DRIVE, GREENWOOD,
IN
225 N HIGH STREET, MUNCIE, IN
801 WABASH AVE, TERRE HAUTE, IN
201 E. RUDISILL BLVD, FORT WAYNE, IN
955 MEZZANINE DRIVE, LAFAYETTE, IN
7525 EAST 39TH STREET, INDIANAPOLIS,
IN

**NPA (Subcontractor): Shares Inc.,
Shelbyville, IN**

301 SOUTH PROSPECT ROAD,
BLOOMINGTON, IL
1201 N MITSUBISHI MOTORWAY,
BLOOMINGTON, IL
310–312 W. CHURCH ST., CHAMPAIGN, IL
306 W ELDORADO STREET, DECATUR, IL
405 SOUTH BANKER STREET,
EFFINGHAM, IL
2066 WINDISH DR, GALESBURG, IL
2415 WEST CORNERSTONE CT, PEORIA, IL
3701 EAST LAKE CENTRE DR., QUINCY, IL
3101 CONSTITUTION DRIVE,
SPRINGFIELD, IL
1122 T & C COMMONS, CHESTERFIELD,
MO
111 CORPORATE OFFICE DR. #145, EARTH
CITY, MO
1222 SPRUCE ST, ST LOUIS, MO

**NPA (Subcontractor): United Cerebral Palsy
of the Land of Lincoln, Springfield, IL**

1115 NORTH MADISON AVE, EL DORADO,
AR
4905 OLD GREENWOOD RD., FORT SMITH,
AR
190 AVIATION PLAZA SUITE C, HOT
SPRINGS, AR
615 S MAIN ST, JONESBORO, AR
700 W CAPITOL AVENUE, LITTLE ROCK,
AR
100 EAST 8TH AVE, PINE BLUFF, AR
1401 HUDSON LN STE 134, MONROE, LA
3007 KNIGHT ST, SHREVEPORT, LA
3333 S. NATIONAL AVE, SPRINGFIELD, MO
109 S HIGHLAND AVE, JACKSON, TN
MEMPHIS FB: 167 N MAIN ST, MEMPHIS,
TN
22 N FRONT ST, MEMPHIS, TN
500 N STATE LINE AVE, TEXARKANA, AR
655 E MILSAP RD, FAYETTEVILLE, AR

**NPA (Subcontractor): United Cerebral Palsy
of Central Arkansas, Little Rock, AR**

1110 MONTLIMAR DR, MOBILE, AL
235 ROOSEVELT AVE., ALBANY, GA
3604 MACON ROAD, COLUMBUS, GA
VALDOSTA FB: 401 NORTH PATTERSON
ST, VALDOSTA, GA
202 WEST ADAMS STREET, DOTHAN, AL
125 W ROMANA STREET, PENSACOLA, FL
880 N. REUS STREET, PENSACOLA, FL
651–F WEST 14TH STREET, PANAMA
CITY, FL

**NPA (Subcontractor): Wiregrass
Rehabilitation Center, Inc., Dothan, AL**

2120 CAPITOL AVE, CHEYENNE, WY

**NPA (Subcontractor): Bayaud Industries,
Inc., Denver, CO**

300 COUNTRY CLUB RD, EUGENE, OR

GUS J. SOLOMON CTHSE: 620 SW MAIN
ST, PORTLAND, OR
E.GREEN—W.WYATT FB: 1220 SW THIRD
AVE, PORTLAND, OR
1660 OAK STREET SE, SALEM, OR
500 W 12TH ST, VANCOUVER, WA

**NPA (Subcontractor): Garten Services, Inc.,
Salem, OR**

10715 DAVID TAYLOR DRIVE,
CHARLOTTE, NC
3308 CHAPEL HILLS BLVD, DURHAM, NC
320 FEDERAL PLACE, GREENSBORO, NC
2303 W MEADOWVIEW ROAD,
GREENSBORO, NC
115 5TH AVENUE, NW, HICKORY, NC
4405 BLAND ROAD, RALEIGH, NC
RALEIGH FB: 310 NEW BERN AVENUE,
RALEIGH, NC
251 N MAIN STREET, WINSTON SALEM,
NC
151 PATTON AVENUE, ASHEVILLE, NC
225 GREEN ST, FAYETTEVILLE, NC
3340 JAECKLE DRIVE, WILMINGTON, NC

**NPA (Subcontractor): OE Enterprises, Inc.,
Hillsborough, NC**

1212 CHARLES STREET, BEAUFORT, SC
1 POSTON ROAD, CHARLESTON, SC
1835 ASSEMBLY STREET, COLUMBIA, SC
440 ROPER MOUNTAIN ROAD,
GREENVILLE, SC
601 19th AVENUE NORTH, MYRTLE
BEACH, SC
401 W EVANS ST, FLORENCE, SC

**NPA (Subcontractor): Florence County
Disabilities and Special Needs Board,
Florence, SC**

5799 BROADMOOR ST, MISSION, KS
120 SE 6TH STREET, TOPEKA, KS
271 WEST 3RD STREET NORTH, WICHITA,
KS
3720 SOUTH ELIZABETH STREET,
INDEPENDENCE, MO
6000 E. GEOSPACE DRIVE,
INDEPENDENCE, MO
5800 E BANNISTER ROAD, KANSAS CITY,
MO
APPEAL SITE: 2345 GRAND AVE, KANSAS
CITY, MO
333 WEST PERSHING ROAD, KANSAS
CITY, MO
200 SPACE CENTER DRIVE, LEES SUMMIT,
MO

**NPA (Subcontractor): Independence and
Blue Springs Industries, Inc., Independence,
MO**

211 N DELAWARE AVE, MASON CITY, IA

**NPA (Subcontractor): Harrison County
Sheltered Workshop Association, Bethany,
MO**

4825 COFFEE RD, BAKERSFIELD, CA

**NPA (Subcontractor): The Bakersfield
Association for Retarded Citizens, Inc.,
Bakersfield, CA**

1534 NORTH BRIDGE ST., CHILLICOTHE,
OH
JOHN W PECK FB: 550 MAIN STREET,
CINCINNATI, OH
36 E SEVENTH STREET, CINCINNATI, OH
312 ELM ST., CINCINNATI, OH
200 W 2ND ST, DAYTON, OH
70 N. PLAINS ROAD, THE PLAINS, OH

9075 CENTRE POINTE DRIVE,
WESTCHESTER, OH
710 MAIN ST., ZANESVILLE, OH
200 WEST FOURTH STREET, COVINGTON,
KY
333 SCOTT STREET, COVINGTON, KY
COLUMBUS FOB: 200 N HIGH ST,
COLUMBUS, OH
401 NORTH FRONT STREET, COLUMBUS,
OH

**NPA (Subcontractor): Greene, Inc., Xenia,
OH**

SANTA ANA POD: 801 CIVIC CENTER
DRIVE, W., SANTA ANA, CA

**NPA (Subcontractor): Landmark Services,
Inc., Santa Ana, CA**

Patricia Briscoe,

Deputy Director, Business Operations.

[FR Doc. E9–29485 Filed 12–10–09; 8:45 am]

BILLING CODE 6353–01–P

DEPARTMENT OF DEFENSE

**Department of the Army, Corps of
Engineers**

**Intent To Prepare a Draft
Environmental Impact Statement for
the Proposed Mather Specific Plan,
Sacramento County, CA, Permit
Application number SPK–2002–561**

AGENCY: Department of the Army, U.S.
Army Corps of Engineers, DOD.

ACTION: Notice of intent.

SUMMARY: The U.S. Army Corps of
Engineers, Sacramento District, (Corps)
will prepare an Environmental Impact
Statement (EIS) for the Mather Specific
Plan in Sacramento County, CA. The
Sacramento County Department of
Economic Development has applied for
a Department of the Army permit to fill
approximately 35.4 acres of waters of
the United States, including wetlands,
to construct the project.

ADDRESSES: Please send written
comments to Kathleen Dadey, U.S.
Army Corps of Engineers, Sacramento
District, 1325 J Street, Room 1480,
Sacramento, CA, 95814–2922.

FOR FURTHER INFORMATION CONTACT:
Questions about the proposed action
and EIS can be answered by Kathleen
Dadey, (916) 557–7253, e-mail:
kathleen.a.dadey@usace.army.mil.

SUPPLEMENTARY INFORMATION: The
Sacramento County Department of
Economic Development has applied for
Department of Army permits under
Section 404 of the Clean Water Act to
develop public and private uses within
the Mather Specific Plan area in eastern
Sacramento County, CA. The Plan area
encompasses approximately 5,716 acres
of land, of which over 2,000 acres are

currently developed. The project proposes to develop approximately 1,870 acres, and set aside 1,274 acres of wetland preserve/open space. The proposed action includes approximately 584 acres of commercial uses associated with the adjacent Mather Airport, 201 acres of commercial, 84 acres of aggregate extraction, 598 acres of university village/residential, 102 acres of parks and recreation, 274 acres for a regional sports park, and 27.4 acres for utilities and infrastructure.

Approximately 124 acres of waters of the United States have been identified in the proposed project area, including 69.8 acres of vernal wetlands (pools and swales), 27.3 acres of depression seasonal wetlands, 1.9 acres of ditches, 5.7 acres of lake/pond and 19.1 acres of other waters of the United States. The applicant has applied for permits to fill 35.39 acres of these waters. The approximately 1,274 acre open space and wetland preserve would contain approximately 47.3 acres of waters not directly impacted by the project. In addition, approximately 4.9 acres of wetlands at the west end of the Mather Airport runway would be avoided and placed under some type of protective agreement, but not a conservation easement.

The EIS will include an evaluation of a reasonable range of alternatives. Currently, at least four alternatives are expected to be analyzed in detail: (1) The no action alternative (no permit issued), (2) the applicant's preferred project (proposed action), (3) an offsite alternative, and (4) a reduced development footprint alternative. The no action alternative assumes limited development would occur in the Mather Specific Plan area with all waters of the United States avoided. The off-site alternative assumes the proposed project would be developed at a different but suitably-sized site in the region. A reduced development footprint alternative will have a smaller development footprint than the applicant's preferred project with less direct impacts to waters of the United States.

The Corps' scoping process for the EIS includes a public involvement program with several opportunities to provide oral and written comments. In addition to public meetings and notifications in the **Federal Register**, the Corps will issue public notices when the draft and final EISs are available. Affected Federal, State, and local agencies, Native American tribes, and other interested organizations and parties are invited to participate.

Potentially significant issues to be analyzed in the EIS include, but are not

limited to: Hydrology, water supply, water quality, cultural resources, biological resources, traffic and transportation, and air quality.

The Corps is the lead agency for preparation of the EIS under the requirements of the National Environmental Policy Act (NEPA). The Corps will coordinate with the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service and Central Valley Regional Water Quality Control Board.

Other environmental review and consultation requirements for the proposed action include the need for the applicant to obtain water quality certification under Section 401 of the Clean Water Act from the Central Valley Regional Water Quality Control Board. In addition, because the proposed project may affect federally-listed endangered species, the Corps will formally consult with the U.S. Fish and Wildlife Service in accordance with Section 7 of the federal Endangered Species Act. The Corps will also be consulting with the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act concerning properties listed, or potentially eligible for listing, on the National Register of Historic Places.

One public scoping meeting for the EIS will be held on January 6, from 4 p.m. to 7 p.m. Conference Room 170 located at 10545 Armstrong Avenue, Mather CA, 95655. Interested parties can provide oral and written comments at the meeting. Interested parties may also submit written comments on this notice. Scoping comments should be submitted before January 31, 2010, but may be submitted at any time prior to publication of the Draft EIS.

Interested parties may register for the Corps' public notice email notification lists at: <http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/pnlist.html>.

Dated: November 30, 2009.

Thomas C. Chapman,

Colonel, Corps of Engineers, District Engineer.

[FR Doc. E9-29603 Filed 12-10-09; 8:45 am]

BILLING CODE 3720-58-P

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Public Hearings for the Draft Environmental Impact Statement/ Overseas Environmental Impact Statement for the Gulf of Alaska Navy Training Activities

AGENCY: Department of the Navy, DoD.

ACTION: Notice.

SUMMARY: Pursuant to section 102(2)(c) of the National Environmental Policy Act (NEPA); the Council on Environmental Quality Regulations for implementing the procedural provisions of NEPA (Title 40 Code of Federal Regulations Parts 1500-1508); and Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, the Department of the Navy (Navy) has prepared and filed with the U.S. Environmental Protection Agency a Draft Environmental Impact Statement/ Overseas Environmental Impact Statement (EIS/OEIS) for public release on December 11, 2009. The National Marine Fisheries Service (NMFS) is a Cooperating Agency for the EIS/OEIS.

The Draft EIS/OEIS evaluates the potential environmental effects of the Proposed Action from Navy training activities conducted in the Gulf of Alaska and Alaska's inland training areas, collectively referred to as the Alaska Training Areas (ATA). The Draft EIS/OEIS addresses ongoing and proposed military training activities, as well as proposed force structure changes and the introduction of new weapons and systems to the Fleet. The Proposed Action serves to achieve and maintain Fleet readiness using the ATA to support and conduct current, emerging, and future training activities. A Notice of Intent for this Draft EIS/OEIS was published in the **Federal Register** on March 17, 2008 (73 FR 14237).

The Navy will conduct five public hearings to receive oral and written comments on the Draft EIS/OEIS. Federal, State, and local agencies, elected officials, and other interested individuals and organizations are invited to be present or represented at the public hearings. This notice announces the dates and locations of the public hearings for this Draft EIS/OEIS.

An open house session will precede the scheduled public hearing at each of the locations listed below, and will allow individuals to review the information presented in the Draft EIS/OEIS. Navy representatives will be available during the open house sessions to clarify information related to the Draft EIS/OEIS.

Dates and Addresses: Five public hearings will be held in Alaska to receive oral and written comments on the Draft EIS/OEIS. All meetings will start with an open house session from 5 p.m. to 7 p.m., followed by a presentation and formal public comment period from 7 p.m. to 8:30 p.m. Public hearings will be held on the following dates and at the following locations:



Public Notice of Permit Application

Action ID: SPK-2002-00561

Comments Period: 16 December 2009 – 15 March 2010

SUBJECT: The U.S. Army Corps of Engineers, Sacramento District, (Corps) is evaluating permit applications under Section 404 of the Clean Water Act to develop public and private uses within the Mather Specific Plan area in eastern Sacramento County, California. The Plan area encompasses approximately 5,716 acres of land, of which over 2,000 acres are currently developed. The Corps has determined that an Environmental Impact Statement (EIS) will be developed in accordance with the National Policy Act (NEPA). A Notice of Intent (NOI) was published in the Federal Register on December 11, 2009, and can be found at http://www.access.gpo.gov/su_docs/fedreg/frcont09.html. This notice may also be viewed at the Corps web site at <http://www.spk.usace.army.mil/regulatory.html>.

The Corps is the lead agency for preparation of the EIS under the requirements of the NEPA. The Corps will coordinate with the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service and Central Valley Regional Water Quality Control Board.

AUTHORITY: This application is being evaluated under Section 404 of the Clean Water Act for the discharge of dredged or fill material in waters of the United States.

APPLICANT: Sacramento County
Department of Economic Development
700 H Street Suite 7650
Sacramento, California 95814
Attn: Rick Balaz, Senior Project Manager

LOCATION: The project site is located in Sections 10 - 16, 23, 24, Township 8 North, Range 6 East, and Sections 18 and 19, Township 8 North, Range 7 East, MDB&M, in Sacramento County, California.

PROJECT DESCRIPTION: The applicant proposes to develop approximately 1,870 acres, and set aside 1,274 acres of wetland preserve/open space. The proposed action includes approximately 584 acres of commercial uses associated with the adjacent Mather Airport, 201 acres of commercial, 84 acres of aggregate extraction, 598 acres of university village/residential, 102 acres of parks and recreation, 274 acres for a regional sports park, and 27.4 acres for utilities and infrastructure. The applicant has applied for permits to fill 35.39 acres of these waters. The approximately 1,274 acre open space and wetland preserve would contain approximately 47.3 acres of waters not directly impacted by the project. In addition, approximately 4.9 acres of wetlands at the west end of the Mather Airport runway would be avoided and placed under some type of protective agreement, but not a conservation easement.

PUBLIC SCOPING MEETING: A public scoping meeting for the EIS will be held on January 6, from 4:00 pm to 7:00 pm 10590 Armstrong Avenue, Mather California 95655, in Main Conference Room A. Please note that this is a slight change in venue relative to the address in the NOI in the Federal Register. Interested parties can provide oral and written comments at the meeting. Interested parties

may also submit written comments on this notice. Scoping comments should be submitted before February 14, 2010, but may be submitted at any time prior to publication of the Draft EIS.

ADDITIONAL INFORMATION:

Environmental Setting. The project area is southeast of Sacramento on the former Mather Air Force Base, which is currently owned by the U.S. government. Plans to transfer the property to the County are awaiting completion of a Wetlands Management Plan by the County. Approximately 124 acres of waters of the United States have been identified in the proposed project area, including 69.8 acres of vernal wetlands (pools and swales), 27.3 acres of depressional seasonal wetlands, 1.9 acres of ditches, 5.7 acres of lake/pond and 19.1 acres of other waters of the United States.

Alternatives. The EIS will include an evaluation of a reasonable range of alternatives. Currently, at least four alternatives are expected to be analyzed in detail: (1) the no action alternative (no permit issued), (2) the applicant's preferred project (proposed action), (3) an offsite alternative, and (4) a reduced development footprint alternative. The no action alternative assumes limited development would occur in the Mather Specific Plan area with all waters of the United States avoided. The off-site alternative assumes the proposed project would be developed at a different but suitably-sized site in the region. A reduced development footprint alternative will have a smaller development footprint than the applicant's preferred project with less direct impacts to waters of the United States.

Mitigation. The Corps requires that applicants consider and use all reasonable and practical measures to avoid and minimize impacts to aquatic resources. If the applicant is unable to avoid or minimize all impacts, the Corps may require compensatory mitigation. As stated by the applicant, current mitigation comprises preservation of approximately 1,274 acres of wetland/open space habitat, containing 47.3 acres of waters on-site.

OTHER GOVERNMENTAL AUTHORIZATIONS: Water quality certification, as required under Section 401 of the Clean Water Act, from the Central Valley Regional Water Quality Control Board is required for this project. The applicant has not indicated they have applied for certification.

HISTORIC PROPERTIES: The Corps will initiate consultation with the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act.

ENDANGERED SPECIES: The Corps will initiate consultation with US Fish and Wildlife Service under Section 7 of the Endangered Species Act.

ESSENTIAL FISH HABITAT: The proposed project will not affect Essential Fish Habitat (EFH) as defined in the Magnuson-Stevens Fishery Conservation and Management Act.

The above determinations are based on information provided by the applicant and our preliminary review.

PROCESS: The scoping process for the development of an EIS is intended to be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action. As part of the scoping process, the Corps, as the lead Federal Agency in the preparation of the EIS, has invited the participation of affected Federal, State, and local agencies, any affected Indian tribes and other interested persons. Throughout the scoping process, several opportunities will be available for interested parties to provide verbal and written comments on

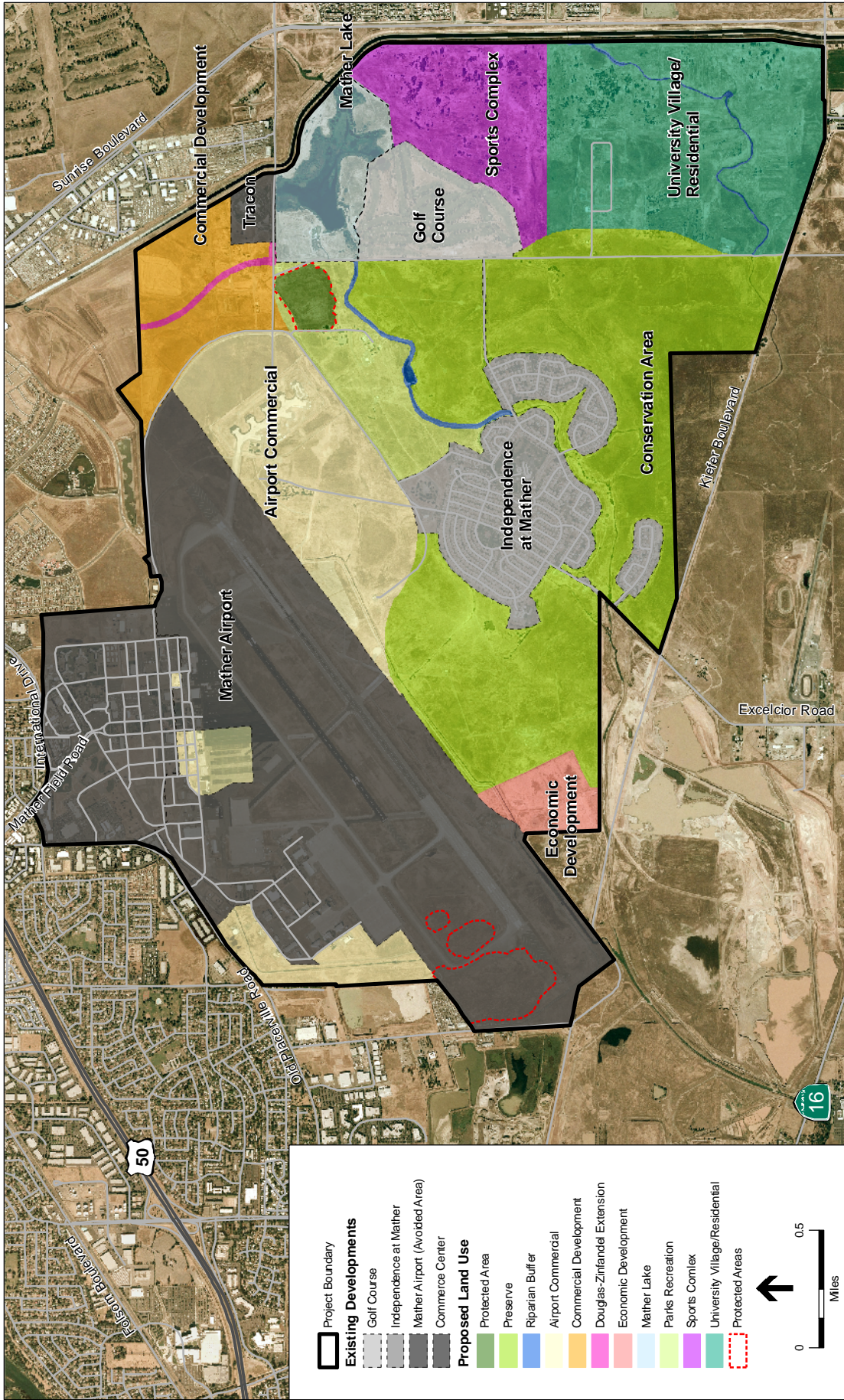
the proposed project. The EIS will evaluate all significant impacts of the proposed activity, including those impacts to hydrology, water supply, water quality, cultural resources, biological resources, traffic and transportation, and air quality.

SUBMITTING COMMENTS: Written comments, referencing Public Notice SPK-2002-561 must be submitted to the office listed below on or before **February 15, 2009**.

Kathleen A. Dadey, PhD, Chief, CA Delta Branch
US Army Corps of Engineers, Sacramento District
Sacramento Office
1325 J Street, Room 1480
Sacramento, California 95814 2922
Email: kathleen.a.dadey@usace.army.mil

The Corps is particularly interested in receiving comments related to the proposal's probable impacts on the affected aquatic environment and the secondary and cumulative effects. Please note that all comment letters received are subject to release to the public through the Freedom of Information Act. If you have questions or need additional information please contact the applicant or the Corps' project manager Kathleen A. Dadey, (916) 557-7253, kathleen.a.dadey@usace.army.mil.

Attachment: 1 drawing



The Sacramento Bee

P.O. Box 15779 • 2100 Q Street • Sacramento, CA 95852

**ESA WATER
2600 CAPITOL MALL #200
SACRAMENTO, CA 95816**

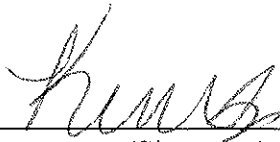
DECLARATION OF PUBLICATION
(C.C.P. 2015.5)

COUNTY OF SACRAMENTO
STATE OF CALIFORNIA

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interest ed in the above entitled matter. I am the printer and principal clerk of the publisher of The Sacramento Bee, printed and published in the City of Sacramento, County of Sacramento, State of California, daily, for which said newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Sacramento, State of California, under the date of September 26, 1994, Action No. 379071; that the notice of which the annexed is a printed copy, has been published in each issue thereof and not in any supplement thereof on the following dates, to wit:

December 21, 2009

I certify (or declare) under penalty of perjury that the foregoing is true and correct and that this declaration was executed at Sacramento, California, on **December 21, 2009**



(Signature)

NO 2 PUBLIC NOTICE

Public Scoping Meeting for the Proposed Mather Specific Plan Project.

The U.S. Army Corps of Engineers, Sacramento District (Corps) is evaluating permit applications under Section 404 of the Clean Water Act to develop public and private uses within the Mather Specific Plan area in eastern Sacramento County, California. The Plan area encompasses approximately 5,716 acres of land, of which over 2,000 acres are currently developed. The Corps has determined that an Environmental Impact Statement (EIS) will be developed in accordance with the National Environmental Policy Act.

A public scoping meeting for the EIS will be held on January 6, from 4:00 pm to 7:00 pm at 10590 Armstrong Avenue, Mather, California 95655, in Main Conference Room A. Please note that this is a slight change in venue relative to the address printed in the Notice of Intent in the Federal Register. Interested parties can provide oral and written comments at the meeting. Interested parties may also submit written comments on this notice, to Kathleen Dadey, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Room 1480, Sacramento, California 95814 or Kathleen.A.Dadey@usace.army.mil. Scoping comments should be submitted before March 15, 2010, but may be submitted at any time prior to publication of the Draft EIS.

Appendix B

Comment Letters



United States Department of the Interior

FISH AND WILDLIFE SERVICE
 Sacramento Fish and Wildlife Office
 2800 Cottage Way, Room W-2605
 Sacramento, California 95825-1846



In reply refer to:
 81420-2008-TA-1801-2

JAN 15 2010

Kathleen Dadey, Ph.D.
 U.S. Army Corps of Engineers
 Regulatory Branch
 1325 J Street, Room 1480
 Sacramento, California 95814-2922

| | | | | | |
|-------------------|---------------|---------|------------|------------|---|
| Post-It® Fax Note | 7871 | Date | 1/21 | # of pages | 6 |
| To | Erich Fischer | From | Kate Dadey | | |
| Co./Dept. | | Co. | | | |
| Phone # | | Phone # | | | |
| Fax # | 564-9501 | Fax # | | | |

ETI

Subject: Comments on the Public Notice of Permit Application for the Development of the Former Mather Air Force Base, Sacramento County, California (SPK-2002-00561)

Dear Dr. Dadey:

This responds to the December 16, 2009, Public Notice (SPK-2002-00561) from the U.S. Army Corps of Engineers (Corps) for the Development of the Former Mather Air Force Base (proposed project) in Sacramento County, California. The former air force base is currently owned by the U.S. Air Force, but is in the process of being transferred to Sacramento County (County) (project applicant). As described in the Public Notice, the County proposes to develop approximately 1,890 acres of the former base and set aside 1,274 acres of wetland preserve. Developed areas include commercial development associated with the adjacent Mather Airport, general commercial development, aggregate extraction, a university village/residential area, parks and recreation areas, a regional sports park, and additional utility and infrastructure. The project site is located in Section 10 – 16, 23, 25, Township 8 North, Range 6 East, and Section 18 and 19, Township 8 North Range 7 East, MDB&M in Sacramento County, California. The Corps has determined that an Environmental Impact Statement (EIS) will be developed in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*). The U.S. Fish and Wildlife Service (Service) is providing comments in accordance with the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

The Service has been meeting regularly with Sacramento County (County) (project applicant), the U.S. Air Force (Air Force), U.S. Environmental Protection Agency (EPA), the Corps, and the California Department Fish and Game (DFG) regarding the transfer of the property from the Air Force to the County and the County's plans for development. The Service has drafted a biological opinion for the transfer based on these discussions and materials submitted to the Service by the County and the Air Force. There are discrepancies between the Service's understanding of the project based on these meetings and the information provided in the public notice. Most notably

Dr. Kathleen Dadey

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is the level of protection provided the area north of Morrison Creek and some of the acreages provided. The area north of Morrison Creek, which is classified as "Protected Area" in the public notice, has been presented by the County to the Service as part of the "Preserve" that will be protected with a conservation easement. According to the public notice, the acreage of all waters in the Preserve not directly affected by the proposed project is 47.3 acres, but the Service has been told there are 64.57 acres of vernal pool habitat within the Preserve. Wetlands at the west end of the runway proposed to be placed under some type of protective agreement are 4.9 acres according to the public notice, but the Service has been told there are 6.95 acres. The Service has questioned these discrepancies and the County has clarified that the pools north of Morrison Creek will be included under the conservation easement with the rest of the Preserve. Further, the 47.3 acres of waters in the Preserve and the 4.9 acres of waters at the end of the runway presented in the public notice are actually the acreage of vernal pools, not total waters or vernal pool habitat; there are over 64 acres of vernal pool habitat within the Preserve and approximately 6.9 acres of vernal pool habitat at the end of the runway.

Potential impacts on federally-listed species and critical habitat

The Service recommends that the EIS include a meaningful effects analysis for federally-listed species and designated critical habitat, including a proposed conservation strategy for federally-listed species and a discussion of the effects of this project cumulatively with other proposed or upcoming projects. The Service will consider this evaluation during consultation with the Corps pursuant to section 7 of the Act. At that time, the Service would use information provided by the Corps, the applicant, and information otherwise available to the Service to determine the extent of effects to federally-listed species.

A species list for Federally-listed species can be obtained from the Service's Sacramento Fish and Wildlife Office website: <http://www.fws.gov/sacramento/>. The species list should be updated every 90 days in the event that additional species are listed or delisted, or critical habitat is designated within the proposed project action area.

The project applicant proposes to fill approximately 35.39 acres of jurisdictional waters, including habitat for federally-listed vernal pool species, some of which is within designated critical habitat for vernal pool species. The Service is particularly concerned about the proposed project's effects on the following federally-listed vernal pool species and critical habitat:

- endangered vernal pool tadpole shrimp (*Lepidurus packardii*);
- threatened vernal pool fairy shrimp (*Branchinecta lynchi*);
- endangered Sacramento Orcutt grass (*Orcuttia viscida*);
- endangered slender Orcutt grass (*Orcuttia tenuis*);
- vernal pool tadpole shrimp critical habitat unit 8;
- threatened vernal pool fairy shrimp critical habitat unit 13;
- Sacramento Orcutt grass critical habitat unit 2; and
- slender Orcutt grass critical habitat unit 6.

Dr. Kathleen Dadey

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Vernal pool species and critical habitat

Most listed species, and vernal pool species in particular, are threatened by loss and fragmentation of existing habitat. Vernal pool complexes are mosaics of wetted pools and swales which are hydrologically connected and include the associated upland habitat and local watersheds essential for the function of the pools. These vernal pool complexes should be preserved on a landscape level to ensure the persistence of the species that inhabit them. Habitat conversion for urban, agricultural, and industrial uses has filled much of the vernal pool habitat in Sacramento County, and the remaining habitat has become increasingly fragmented.

In general, our recovery plans should be used when evaluating where projects are planned and where compensation is proposed. The *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (Service 2005) provides a recovery strategy for 20 federally-listed species: 10 endangered plants, 5 threatened plants, 3 endangered animals, and 2 threatened animals. Of these, the vernal pool tadpole shrimp, vernal pool fairy shrimp, Sacramento Orcutt grass, and slender Orcutt grass either exist or have a high potential to exist on the proposed project site. The Recovery Plan presents an ecosystem-level strategy for recovery and conservation focused on habitat protection and management. Core areas, which are the focus for habitat protection efforts presented in the Recovery Plan, have been defined and prioritized based on ecological features, population distributions, and distinct geographic and/or genetic diversity necessary to recover these species.

The proposed project occurs partially within the Mather Core Area, one of eight core areas that occur within the Southeastern Sacramento Valley vernal pool region. The Mather Core Area is designated a Priority One Core Area, and as such is considered essential to species' recovery (Service 2005). Sacramento County and the Mather Core Area are particularly important to the recovery of the vernal pool tadpole shrimp, slender Orcutt grass, and Sacramento Orcutt grass. One third of the total reported occurrences are within Sacramento County and the Service estimates that approximately 74 percent of all known tadpole shrimp in the Southeastern Sacramento Valley vernal pool region occur within the Mather Core Area (Service unpub. data). The conservation goals for the Mather Core Area set forth in the Recovery Plan include protecting 95 percent of suitable habitat for vernal pool tadpole shrimp, slender Orcutt grass, and Sacramento Orcutt grass, and protecting 85 percent of suitable habitat for vernal pool fairy shrimp. Numerous surveys have been conducted in the action area and there are multiple records of vernal pool crustaceans on Mather Field, including in the proposed Preserve and the area proposed for development by the County.

In addition, the proposed project occurs partially within the Mather Critical Habitat Unit for the vernal pool tadpole shrimp and fairy shrimp. The Mather Critical Habitat Unit contains all four Primary Constituent Elements (PCE) identified in the final rule designating critical habitat for these species (FR 71: 7118-7316). PCEs are those physical and biological features of a landscape necessary for species survival and reproduction and are essential to the role of critical habitat in species recovery. In designating critical habitat special management considerations are identified as threats or impacts particularly important to listed species management and recovery.

Dr. Kathleen Daxley

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The special management considerations identified for this Unit include: habitat conversion for urban or agriculture uses, changes in hydrology, grazing, off-road vehicle use, and invasive species (FR 71: 7118-7316).

Critical habitat is an essential component of successful species recovery. The Mather Critical Habitat Unit (Service 2006) is small relative to other Critical Habitat Units. However, it is located within the Mather Core Area and, as mentioned above, this region is vitally important in the recovery of a number of vernal pool species. Conserving suitable vernal pool habitat within the Mather Critical Habitat Unit is a priority for the Service.

As a primary consideration, the Service recommends that the applicant implement the strategies in the Recovery Plan. The EIS should include implementation and consistency with the Recovery Plan as a conservation measure for impacts to biological resources. Service staff are available to work with the applicant to develop a conservation strategy for the proposed project to address compliance with the Act is necessary.

Enforceable Conservation Measures

Conservation measures should establish performance standards to evaluate the success of the proposed measures, provide a range of options to achieve the performance standards, and must commit the lead agency to successful completion of the measures. Conservation measures should also describe when the conservation measure will be implemented, and explain why the measures are feasible. The Service recommends that the conservation measures be enforceable and do not defer conservation (particularly compensation) details to some future time. The County will need to establish provisions for the long-term management of the Preserve, including development of a management plan. Land management responsibilities shall reside with a resource management agency, qualified non-profit organization, or appropriate private entity, subject to Service approval. A sufficient funding level with acceptable guarantees (e.g., cash endowment, letters of credit) shall be provided to fully ensure the ongoing maintenance and stewardship of the easement lands. Prior to selecting a Preserve manager and establishing a management endowment the County will be financially responsible for carrying out the ongoing management, monitoring, and reporting requirements associated with the Preserve.

The EIS should identify the following items:

- how each measure will be carried out;
- who will perform the measures;
- when the measures will be performed; and,
- the performance standards and mechanisms for achieving success; and
- an assured source of funding to acquire and manage identified compensation lands.

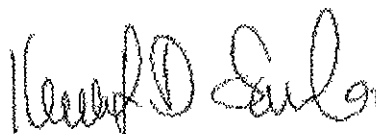
The EIS could describe a range of enforceable conservation measures that will be implemented in instances where approval and cooperation with the entities identified above either does or does not occur, and must reduce the impacts to biological resources to a level that is below significant.

Dr. Kathleen Dadey

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Thank you for the opportunity to review this project. We are committed to working with the Corps, the applicant, and other proponents to ensure that this proposed project avoids and minimizes effects on federally-listed species and remains consistent with the conservation strategies and operating conservation programs of pending and existing habitat conservation plans. Please contact Lisa Ellis or Jana Affonso, Sacramento Valley Branch Chief, at 916-414-6645 if you have any questions or concerns regarding this letter.

Sincerely,



Kenneth D. Sanchez
Assistant Field Supervisor

cc:

Clark Whittam, Sacramento County

Philip Mock, U.S. Air Force

Paul Jones, U.S. Environmental Protection Agency

Dan Gifford, California Department of Fish and Game

Todd Gardner, California Department of Fish and Game

Dr. Kathleen Dauby

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Literature Cited

U.S. Fish and Wildlife Service. 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon. xxii + 574 pp.

U.S. Fish and Wildlife Service. 2006. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

MAR 12 2010

Kathleen Dadey
U.S. Army Corps of Engineers
1325 J Street, Planning Division, CESP-K-PD-R
Sacramento, CA 95814

Subject: Scoping Comments for the Mather Specific Plan in Sacramento County, CA.

Dear Ms. Dadey:

The Environmental Protection Agency (EPA) has reviewed the Notice of Intent to prepare an environmental impact statement (EIS) for the Mather Specific Plan in Sacramento County, CA. Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. These comments were also prepared under the authority of and in accordance with, the provisions of the Federal Guidelines (Guidelines) promulgated at 40 CFR 230 under Section 404(b) (1) of the Clean Water Act (CWA).

EPA Region 9's Wetlands Office has been involved in aquatic resource protection at Mather Air Field since the early 1990's. EPA worked closely with the Air Force in formulating the Supplemental Record of Decision (SROD), issued in 1994, for the Disposal and Reuse of Mather Air Force Base. The SROD was as protective of the vernal pool resources on the site as the times permitted. We are concerned that Sacramento County is pursuing the development of an EIS for the Mather Specific Plan prematurely, given that compliance with critical elements of the 1994 SROD remains to be accomplished. We encourage the U.S. Army Corps of Engineers (USACE) to ensure that compliance with the 1994 SROD, in its entirety, is documented before proceeding with the NEPA process for any actions regarding new development plans for the Mather Specific Plan.

The SROD, which was signed by Assistant Secretary Rodney A. Coleman on November 21, 1994, calls for one of the following two measures to be in place at the time of conveyance of the property to Sacramento County, to protect wetlands and endangered species on the site: 1. a wetland protection agreement is entered into by Sacramento County, USACE, US Fish and Wildlife Service (FWS), and EPA Region 9; or 2. a restriction is attached to the deeds requiring Sacramento County to adhere to a wetland management plan developed by Sacramento County and approved by the aforementioned federal agencies and the California Department of Fish and Game.

In 2005, EPA participated in a series of stakeholder meetings designed to establish conservation areas on Mather and to set forth, in concept, the manner in which those areas would be managed in perpetuity. Also at that time, we worked closely with Sacramento County staff and USACE on a “permitting blueprint” that set dates and processes for obtaining local entitlements as well as state and federal permits to develop areas designated for commercial and recreational development.

To date, a wetland protection agreement has not been signed by the agencies pursuant to the SROD, and a wetland management plan has been circulated as a draft document, but not approved. Under these circumstances, transfer of the property from the Air Force to Sacramento County prior would be contrary to the SROD.

Once full compliance with the 1994 SROD has been achieved, scoping to identify issues to be addressed in the Draft EIS (DEIS) for the Mather Specific Plan would be appropriate. Issues of particular concern to EPA include impacts to sensitive resources, including vernal pools, wetlands, and water quality; and the cumulative impacts upon the Sacramento Metropolitan Air Basin, which is already designated “nonattainment” for national ambient air quality standards. A more detailed discussion of our concerns is included below.

The DEIS should clearly describe the direct, indirect, and cumulative effects of the project on water quality, wetlands and vernal pools. This should include a discussion of climate change implications for Mather Lake and Morrison Creek. For example, describe and evaluate the potential impacts of the project in the context of projected climate change effects, such as changes in temperature and increased frequency of high intensity storms. The DEIS should consider the consequences of these effects on wetlands and vernal pools and storm water/sewage treatment capacity.

We understand that the methods for determining flood risk, appropriate flood protection levels, and management of levee vegetation have been evolving over the years. The DEIS should provide a detailed description of the current Federal Emergency Management Agency (FEMA) floodplain management and insurance regulations and how they may influence land management decisions in the project area. Furthermore, we recommend USACE contact FEMA’s Region IX Mitigation Division, Map Modernization Unit to ensure that the latest regulation guidelines are integrated into the DEIS.

EPA encourages the USACE to adequately assess air quality impacts of the project and describe in the DEIS how these impacts will be minimized through mitigation measures. The proposed project area falls within the Sacramento Metropolitan Air Basin, which is designated “nonattainment” for national ambient air quality standards (NAAQS) including ozone and particulate matter less than 10 microns (PM10). Specifically, the air basin is designated “serious nonattainment” for 8-hour ozone, and “moderate nonattainment” for PM10.

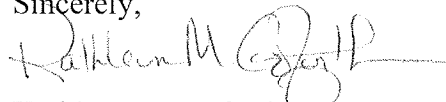
The DEIS should provide a discussion of the baseline air quality conditions in the project area, a description of applicable federal and state air quality regulations, and a rigorous assessment of direct, indirect, and cumulative effects of the proposed project on air quality. These analyses should address impacts from construction and post construction conditions, including increased traffic.

The DEIS should describe specific commitments to mitigate emissions that will prevent further degradation of air quality in the Air Basin, as well as provide a quantitative estimate of the air quality benefits likely to result from each mitigation measure proposed. The DEIS should also describe the USACE's coordination with EPA, California Air Resources Board, and the Sacramento Metropolitan Air Quality Management District to reduce air quality impacts in the Air Basin.

The DEIS should explain whether the project will or will not meet general conformity requirements with the state implementation plans for the Air Basin. If the federal action is determined to potentially interfere with the attainment of Clean Air Act NAAQS, the Corps is required to conduct a conformity analysis to determine the likelihood and extent of interference. Though the Clean Air Act does not require a federal lead agency to prepare a draft General Conformity Determination as part of the NEPA process, the EPA recommends this in the interest of full public disclosure and to better inform decision making.

We appreciate the opportunity to review this NOI. When the DEIS is released for public review, please send one hard copy and one CD ROM to the address above (mail code: CED-2). If you have any questions, please contact me at (415) 972-3521, or contact James Munson, the lead reviewer for this project. James can be reached at (415) 972-3800 or munson.james@epa.gov.

Sincerely,



Kathleen M. Goforth, Manager
Environmental Review Office
Communities and Ecosystems Division

California Native Plant Society

March 15, 2010

Kathleen A. Dadey
U.S. Army Corps of Engineers
Sacramento District
1325 J Street, Room 1480
Sacramento, CA, 95814-2922
Kathleen.a.dadey@usace.army.mil

VIA EMAIL

Subject: Mather Specific Plan
Public Notice Number SPK-2002-00561

Dear Ms. Dadey,

The California Native Plant Society (CNPS) is a statewide non-profit organization of some 10,000 scientists, educators, and laypeople dedicated to the conservation and understanding of the California native flora. As a science-based conservation organization, we believe that good land use decisions must be accompanied by a thorough assessment of the environmental impacts as required by the state and federal Endangered Species Acts, the Clean Water Act, the National Environmental Policy Act, the California Environmental Quality Act, and other resource protection laws.

The Sacramento Valley Chapter of CNPS has been highly involved in participating in and commenting upon land use decisions at all levels that affect vernal pool ecosystems in Sacramento County. Chapter volunteers serve on the South Sacramento Habitat Conservation Plan steering committee and biological subcommittee. Chapter volunteers serve on a stakeholders group to determine land use planning for the former Mather Air Force Base and its vernal pool grassland ecosystem. Chapter volunteers serve on local land trust boards, steering committees, and management committees. Chapter volunteers have testified at innumerable planning commission, board of supervisors, and city council meetings on projects that impact vernal pool resources.

The Sacramento Valley Chapter of CNPS has long viewed the region including the area referenced in the Mather Specific Plan as the "Yellowstone" of vernal pool landscapes in Sacramento County. Due to its extraordinary biological resources, CNPS lobbied extensively to prevent piece-meal projects on the former Mather Field AFB. Geospatial analysis independently conducted for the developing South Sacramento Habitat Conservation Plan has confirmed that this region is unique within Sacramento County from the perspective of both density and diversity of vernal pools present, and in listed species presence. The diversity of vernal pool sizes, shapes, and hydroperiods is strongly correlated to high species diversity and a high level of ecosystem supporting function. The density of aquatic resources and listed species indicates that losses of this habitat will not easily be mitigated for elsewhere in the county.

Ownership Issues

To our knowledge, the land identified in the Mather Specific Plan is still primarily under ownership of the Department of Defense. The County of Sacramento has failed to comply with the Record of Decision regarding base closure and transfer of the land because it has not fulfilled the obligation of creating a wetland preserve with an adequate management and monitoring plan. This must be completed before the county can take ownership and create a specific plan.



Dedicated to the preservation of California native flora

Mitigation Issues

Because the land is currently a public trust resource, CNPS does not believe that is appropriate for the County of Sacramento to claim any of this land as potential mitigation for its proposed development project.

Alternatives Analysis

CNPS requests that an alternative which includes protection of important resources used by the Sacramento Splash program. Specifically, we request an alternative that protects the "Bomb Pool" just east of the munitions storage area.

Cumulative Impacts Analysis

The EIS for the Mather Specific Plan must consider and cross-walk with the various other EISs being prepared for other projects in and around the area including the Sunridge Specific Plan, "The Preserve (or now called The Ranch or Sunridge 530)", Sun-Creek, Heritage Falls, The Arboretum, Rio Del Oro, Cordova Hills, Folsom Sphere of Influence, Glenborough, Easton Place, Excelsior Estates, The Connector and the Kiefer Landfill.

CNPS specifically requests that the U.S. Army Corps of Engineers consider any parcel for which a wetland delineation has been received, or for which a pre-application meeting has been held, regardless of the status of the permit application, within a five mile radius of Mather Specific Plan project be included in the cumulative impacts analysis.

CNPS specifically requests that the U.S. Army Corps of Engineers also analyze the cumulative impacts of unregulated vernal pool losses as has been recently disclosed through a mapping project conducted by Dr. Robert F. Holland. This report is available at <http://www.placerlandtrust.org/vernalpoolreport.aspx>.

Summary

On behalf of CNPS, I appreciate the opportunity to comment on this Notice of Intent. Please keep me informed of activities related to projects in this area that might impact vernal pool grasslands and endangered species habitat.

Sincerely,



Carol W. Witham
CNPS Vice-President
1141 37th Street
Sacramento CA 95816
(916) 452-5440
cwitham@ncal.net

Appendix C

Air Quality Data

APPENDIX C

Air Quality Analysis Report

Introduction to the Air Quality Models and Results

The URBEMIS2007, version 9.2.4, model was used to calculate emissions of ROG, NO_x, CO, PM₁₀, PM_{2.5}, and CO₂ associated with project construction and operations, as well as for the aggregate facility operations.

In addition, for CO₂ quantification from electricity usage, GHG emission factors were incorporated from the *Local Government Operations Protocol* (CARB et al., 2008). Results of the URBEMIS2007 modeling and GHG from electricity usage are presented below.

***URBEMIS2007 MODEL RESULTS FOR CONSTRUCTION AND OPERATION
ACTIVITIES***

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\mxm\Desktop\Weekend Work Shortcuts\Mather Specific Plan\Mather URBEMIS Data\Mather SP Construction Unmitigated.urb924

Project Name: Mather SP Construction

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|-----------------------------------|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| 2012 TOTALS (lbs/day unmitigated) | 818.85 | 112.91 | 374.77 | 0.54 | 1,538.50 | 5.93 | 1,544.43 | 321.31 | 5.45 | 326.77 | 57,219.83 |

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

| <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|

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|------------------------------------|-------|----------------------|--------|------|------------------------|--------------------|------------------------|----------------------|--------------------|----------------------|-----------|
| Time Slice 1/2/2012-1/31/2012 | 10.05 | 84.81 | 44.63 | 0.00 | 1,538.42 | 3.97 | 1,542.39 | 321.29 | 3.65 | 324.94 | 9,274.83 |
| Active Days: 22 | | | | | | | | | | | |
| Fine Grading 01/01/2012-03/31/2012 | 10.05 | 84.81 | 44.63 | 0.00 | 1,538.42 | 3.97 | 1,542.39 | 321.29 | 3.65 | 324.94 | 9,274.83 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 1,538.40 | 0.00 | 1,538.40 | 321.28 | 0.00 | 321.28 | 0.00 |
| Fine Grading Off Road Diesel | 9.94 | 83.94 | 42.08 | 0.00 | 0.00 | 3.94 | 3.94 | 0.00 | 3.62 | 3.62 | 8,842.87 |
| Fine Grading On Road Diesel | 0.06 | 0.77 | 0.28 | 0.00 | 0.01 | 0.03 | 0.04 | 0.00 | 0.03 | 0.03 | 152.50 |
| Fine Grading Worker Trips | 0.06 | 0.10 | 2.27 | 0.00 | 0.01 | 0.01 | 0.02 | 0.00 | 0.00 | 0.01 | 279.47 |
| Time Slice 2/1/2012-3/30/2012 | 18.41 | <u>112.91</u> | 59.86 | 0.03 | <u>1,538.50</u> | <u>5.93</u> | <u>1,544.43</u> | <u>321.31</u> | <u>5.45</u> | <u>326.77</u> | 12,953.85 |
| Active Days: 43 | | | | | | | | | | | |
| Asphalt 02/01/2012-03/31/2012 | 8.35 | 28.11 | 15.23 | 0.02 | 0.08 | 1.96 | 2.04 | 0.03 | 1.80 | 1.83 | 3,679.02 |
| Paving Off-Gas | 4.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving Off Road Diesel | 2.86 | 17.34 | 10.24 | 0.00 | 0.00 | 1.53 | 1.53 | 0.00 | 1.41 | 1.41 | 1,418.81 |
| Paving On Road Diesel | 0.77 | 10.72 | 3.86 | 0.02 | 0.07 | 0.42 | 0.50 | 0.02 | 0.39 | 0.41 | 2,120.47 |
| Paving Worker Trips | 0.03 | 0.05 | 1.13 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.73 |
| Fine Grading 01/01/2012-03/31/2012 | 10.05 | 84.81 | 44.63 | 0.00 | 1,538.42 | 3.97 | 1,542.39 | 321.29 | 3.65 | 324.94 | 9,274.83 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 1,538.40 | 0.00 | 1,538.40 | 321.28 | 0.00 | 321.28 | 0.00 |
| Fine Grading Off Road Diesel | 9.94 | 83.94 | 42.08 | 0.00 | 0.00 | 3.94 | 3.94 | 0.00 | 3.62 | 3.62 | 8,842.87 |
| Fine Grading On Road Diesel | 0.06 | 0.77 | 0.28 | 0.00 | 0.01 | 0.03 | 0.04 | 0.00 | 0.03 | 0.03 | 152.50 |
| Fine Grading Worker Trips | 0.06 | 0.10 | 2.27 | 0.00 | 0.01 | 0.01 | 0.02 | 0.00 | 0.00 | 0.01 | 279.47 |
| Time Slice 4/2/2012-8/31/2012 | 17.44 | 103.42 | 366.28 | 0.53 | 2.24 | 5.02 | 7.26 | 0.79 | 4.52 | 5.32 | 56,174.60 |
| Active Days: 110 | | | | | | | | | | | |
| Building 04/01/2012-11/30/2012 | 17.44 | 103.42 | 366.28 | 0.53 | 2.24 | 5.02 | 7.26 | 0.79 | 4.52 | 5.32 | 56,174.60 |
| Building Off Road Diesel | 3.48 | 20.42 | 13.62 | 0.00 | 0.00 | 1.42 | 1.42 | 0.00 | 1.31 | 1.31 | 2,259.28 |
| Building Vendor Trips | 6.16 | 70.88 | 67.24 | 0.18 | 0.67 | 2.87 | 3.54 | 0.23 | 2.63 | 2.85 | 18,771.92 |
| Building Worker Trips | 7.81 | 12.12 | 285.41 | 0.35 | 1.57 | 0.73 | 2.30 | 0.57 | 0.59 | 1.16 | 35,143.40 |

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| | | | | | | | | | | | |
|----------------------------------------------------|----------------------|--------|----------------------|--------------------|------|------|------|------|------|------|-------------------------|
| Time Slice 9/3/2012-11/30/2012 Active Days: 65 | <u>818.85</u> | 103.78 | <u>374.77</u> | <u>0.54</u> | 2.28 | 5.04 | 7.33 | 0.81 | 4.54 | 5.35 | <u>57,219.83</u> |
| Building 04/01/2012-11/30/2012 | 17.44 | 103.42 | 366.28 | 0.53 | 2.24 | 5.02 | 7.26 | 0.79 | 4.52 | 5.32 | 56,174.60 |
| Building Off Road Diesel | 3.48 | 20.42 | 13.62 | 0.00 | 0.00 | 1.42 | 1.42 | 0.00 | 1.31 | 1.31 | 2,259.28 |
| Building Vendor Trips | 6.16 | 70.88 | 67.24 | 0.18 | 0.67 | 2.87 | 3.54 | 0.23 | 2.63 | 2.85 | 18,771.92 |
| Building Worker Trips | 7.81 | 12.12 | 285.41 | 0.35 | 1.57 | 0.73 | 2.30 | 0.57 | 0.59 | 1.16 | 35,143.40 |
| Coating 09/01/2012-12/31/2012 | 801.41 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Architectural Coating | 801.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.23 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Time Slice 12/3/2012-12/31/2012 Active Days: 21 | 801.41 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Coating 09/01/2012-12/31/2012 | 801.41 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Architectural Coating | 801.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.23 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |

Phase Assumptions

- Phase: Fine Grading 1/1/2012 - 3/31/2012 - Default Fine Site Grading Description
- Total Acres Disturbed: 307.68
- Maximum Daily Acreage Disturbed: 76.92
- Fugitive Dust Level of Detail: Default
- 20 lbs per acre-day
- On Road Truck Travel (VMT): 37.88
- Off-Road Equipment:
 - 1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
 - 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
 - 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
 - 3 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
 - 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Page: 4

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1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 2/1/2012 - 3/31/2012 - Default Paving Description

Acres to be Paved: 76.92

Off-Road Equipment:

1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 4/1/2012 - 11/30/2012 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 9/1/2012 - 12/31/2012 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\mxm\Desktop\Weekend Work Shortcuts\Mather Specific Plan\Mather URBEMIS Data\Mather SP Construction Mitigated.urb924

Project Name: Mather SP Construction

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|-----------------------------------|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| 2012 TOTALS (lbs/day unmitigated) | 818.85 | 103.78 | 374.77 | 0.54 | 300.09 | 5.04 | 303.62 | 62.68 | 4.54 | 65.93 | 57,219.83 |
| 2012 TOTALS (lbs/day mitigated) | 818.85 | 99.70 | 374.77 | 0.54 | 142.02 | 4.40 | 144.17 | 29.67 | 3.95 | 31.65 | 57,219.83 |

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

| <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|

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|------------------------------------|-------|--------|--------|------|---------------|------|---------------|--------------|------|--------------|-----------|
| Time Slice 1/2/2012-1/31/2012 | 3.79 | 30.43 | 17.65 | 0.00 | 300.01 | 1.57 | 301.58 | 62.66 | 1.45 | 64.10 | 3,299.71 |
| Active Days: 22 | | | | | | | | | | | |
| Fine Grading 01/01/2012-03/31/2012 | 3.79 | 30.43 | 17.65 | 0.00 | 300.01 | 1.57 | 301.58 | 62.66 | 1.45 | 64.10 | 3,299.71 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 0.00 | 300.00 | 62.65 | 0.00 | 62.65 | 0.00 |
| Fine Grading Off Road Diesel | 3.71 | 29.61 | 16.24 | 0.00 | 0.00 | 1.54 | 1.54 | 0.00 | 1.42 | 1.42 | 3,007.48 |
| Fine Grading On Road Diesel | 0.06 | 0.77 | 0.28 | 0.00 | 0.01 | 0.03 | 0.04 | 0.00 | 0.03 | 0.03 | 152.50 |
| Fine Grading Worker Trips | 0.03 | 0.05 | 1.13 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.73 |
| Time Slice 2/1/2012-3/30/2012 | 12.15 | 58.54 | 32.88 | 0.02 | 300.09 | 3.53 | 303.62 | 62.68 | 3.25 | 65.93 | 6,978.73 |
| Active Days: 43 | | | | | | | | | | | |
| Asphalt 02/01/2012-03/31/2012 | 8.35 | 28.11 | 15.23 | 0.02 | 0.08 | 1.96 | 2.04 | 0.03 | 1.80 | 1.83 | 3,679.02 |
| Paving Off-Gas | 4.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving Off Road Diesel | 2.86 | 17.34 | 10.24 | 0.00 | 0.00 | 1.53 | 1.53 | 0.00 | 1.41 | 1.41 | 1,418.81 |
| Paving On Road Diesel | 0.77 | 10.72 | 3.86 | 0.02 | 0.07 | 0.42 | 0.50 | 0.02 | 0.39 | 0.41 | 2,120.47 |
| Paving Worker Trips | 0.03 | 0.05 | 1.13 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.73 |
| Fine Grading 01/01/2012-03/31/2012 | 3.79 | 30.43 | 17.65 | 0.00 | 300.01 | 1.57 | 301.58 | 62.66 | 1.45 | 64.10 | 3,299.71 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 0.00 | 300.00 | 62.65 | 0.00 | 62.65 | 0.00 |
| Fine Grading Off Road Diesel | 3.71 | 29.61 | 16.24 | 0.00 | 0.00 | 1.54 | 1.54 | 0.00 | 1.42 | 1.42 | 3,007.48 |
| Fine Grading On Road Diesel | 0.06 | 0.77 | 0.28 | 0.00 | 0.01 | 0.03 | 0.04 | 0.00 | 0.03 | 0.03 | 152.50 |
| Fine Grading Worker Trips | 0.03 | 0.05 | 1.13 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.73 |
| Time Slice 4/2/2012-8/31/2012 | 17.44 | 103.42 | 366.28 | 0.53 | 2.24 | 5.02 | 7.26 | 0.79 | 4.52 | 5.32 | 56,174.60 |
| Active Days: 110 | | | | | | | | | | | |
| Building 04/01/2012-11/30/2012 | 17.44 | 103.42 | 366.28 | 0.53 | 2.24 | 5.02 | 7.26 | 0.79 | 4.52 | 5.32 | 56,174.60 |
| Building Off Road Diesel | 3.48 | 20.42 | 13.62 | 0.00 | 0.00 | 1.42 | 1.42 | 0.00 | 1.31 | 1.31 | 2,259.28 |
| Building Vendor Trips | 6.16 | 70.88 | 67.24 | 0.18 | 0.67 | 2.87 | 3.54 | 0.23 | 2.63 | 2.85 | 18,771.92 |
| Building Worker Trips | 7.81 | 12.12 | 285.41 | 0.35 | 1.57 | 0.73 | 2.30 | 0.57 | 0.59 | 1.16 | 35,143.40 |

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| | | | | | | | | | | | |
|----------------------------------------------------|---------------|---------------|---------------|-------------|------|-------------|------|------|-------------|------|------------------|
| Time Slice 9/3/2012-11/30/2012 Active Days: 65 | 818.85 | 103.78 | 374.77 | 0.54 | 2.28 | 5.04 | 7.33 | 0.81 | 4.54 | 5.35 | 57,219.83 |
| Building 04/01/2012-11/30/2012 | 17.44 | 103.42 | 366.28 | 0.53 | 2.24 | 5.02 | 7.26 | 0.79 | 4.52 | 5.32 | 56,174.60 |
| Building Off Road Diesel | 3.48 | 20.42 | 13.62 | 0.00 | 0.00 | 1.42 | 1.42 | 0.00 | 1.31 | 1.31 | 2,259.28 |
| Building Vendor Trips | 6.16 | 70.88 | 67.24 | 0.18 | 0.67 | 2.87 | 3.54 | 0.23 | 2.63 | 2.85 | 18,771.92 |
| Building Worker Trips | 7.81 | 12.12 | 285.41 | 0.35 | 1.57 | 0.73 | 2.30 | 0.57 | 0.59 | 1.16 | 35,143.40 |
| Coating 09/01/2012-12/31/2012 | 801.41 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Architectural Coating | 801.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.23 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Time Slice 12/3/2012-12/31/2012 Active Days: 21 | 801.41 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Coating 09/01/2012-12/31/2012 | 801.41 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Architectural Coating | 801.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.23 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |

Phase Assumptions

- Phase: Fine Grading 1/1/2012 - 3/31/2012 - Default Fine Site Grading Description
- Total Acres Disturbed: 307.68
- Maximum Daily Acreage Disturbed: 15
- Fugitive Dust Level of Detail: Default
- 20 lbs per acre-day
- On Road Truck Travel (VMT): 37.88
- Off-Road Equipment:
 - 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
 - 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
 - 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
 - 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Phase: Paving 2/1/2012 - 3/31/2012 - Default Paving Description

Acres to be Paved: 76.92

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 4/1/2012 - 11/30/2012 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 9/1/2012 - 12/31/2012 - Default Architectural Coating Description

- Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

| | | | | | | | | | | |
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|

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| | | | | | | | | | | | |
|------------------------------------|-------|-------|--------|------|---------------|------|---------------|--------------|------|--------------|-----------|
| Time Slice 1/2/2012-1/31/2012 | 3.79 | 24.51 | 17.65 | 0.00 | 141.94 | 0.88 | 142.82 | 29.64 | 0.81 | 30.45 | 3,299.71 |
| Active Days: 22 | | | | | | | | | | | |
| Fine Grading 01/01/2012-03/31/2012 | 3.79 | 24.51 | 17.65 | 0.00 | 141.94 | 0.88 | 142.82 | 29.64 | 0.81 | 30.45 | 3,299.71 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 141.93 | 0.00 | 141.93 | 29.64 | 0.00 | 29.64 | 0.00 |
| Fine Grading Off Road Diesel | 3.71 | 23.69 | 16.24 | 0.00 | 0.00 | 0.85 | 0.85 | 0.00 | 0.78 | 0.78 | 3,007.48 |
| Fine Grading On Road Diesel | 0.06 | 0.77 | 0.28 | 0.00 | 0.01 | 0.03 | 0.04 | 0.00 | 0.03 | 0.03 | 152.50 |
| Fine Grading Worker Trips | 0.03 | 0.05 | 1.13 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.73 |
| Time Slice 2/1/2012-3/30/2012 | 12.15 | 49.15 | 32.88 | 0.02 | <u>142.02</u> | 2.15 | <u>144.17</u> | <u>29.67</u> | 1.98 | <u>31.65</u> | 6,978.73 |
| Active Days: 43 | | | | | | | | | | | |
| Asphalt 02/01/2012-03/31/2012 | 8.35 | 24.64 | 15.23 | 0.02 | 0.08 | 1.27 | 1.35 | 0.03 | 1.17 | 1.19 | 3,679.02 |
| Paving Off-Gas | 4.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving Off Road Diesel | 2.86 | 13.87 | 10.24 | 0.00 | 0.00 | 0.84 | 0.84 | 0.00 | 0.78 | 0.78 | 1,418.81 |
| Paving On Road Diesel | 0.77 | 10.72 | 3.86 | 0.02 | 0.07 | 0.42 | 0.50 | 0.02 | 0.39 | 0.41 | 2,120.47 |
| Paving Worker Trips | 0.03 | 0.05 | 1.13 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.73 |
| Fine Grading 01/01/2012-03/31/2012 | 3.79 | 24.51 | 17.65 | 0.00 | 141.94 | 0.88 | 142.82 | 29.64 | 0.81 | 30.45 | 3,299.71 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 141.93 | 0.00 | 141.93 | 29.64 | 0.00 | 29.64 | 0.00 |
| Fine Grading Off Road Diesel | 3.71 | 23.69 | 16.24 | 0.00 | 0.00 | 0.85 | 0.85 | 0.00 | 0.78 | 0.78 | 3,007.48 |
| Fine Grading On Road Diesel | 0.06 | 0.77 | 0.28 | 0.00 | 0.01 | 0.03 | 0.04 | 0.00 | 0.03 | 0.03 | 152.50 |
| Fine Grading Worker Trips | 0.03 | 0.05 | 1.13 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.73 |
| Time Slice 4/2/2012-8/31/2012 | 17.44 | 99.34 | 366.28 | 0.53 | 2.24 | 4.38 | 6.62 | 0.79 | 3.94 | 4.73 | 56,174.60 |
| Active Days: 110 | | | | | | | | | | | |
| Building 04/01/2012-11/30/2012 | 17.44 | 99.34 | 366.28 | 0.53 | 2.24 | 4.38 | 6.62 | 0.79 | 3.94 | 4.73 | 56,174.60 |
| Building Off Road Diesel | 3.48 | 16.34 | 13.62 | 0.00 | 0.00 | 0.78 | 0.78 | 0.00 | 0.72 | 0.72 | 2,259.28 |
| Building Vendor Trips | 6.16 | 70.88 | 67.24 | 0.18 | 0.67 | 2.87 | 3.54 | 0.23 | 2.63 | 2.85 | 18,771.92 |
| Building Worker Trips | 7.81 | 12.12 | 285.41 | 0.35 | 1.57 | 0.73 | 2.30 | 0.57 | 0.59 | 1.16 | 35,143.40 |

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| | | | | | | | | | | | |
|----------------------------------------------------|---------------|--------------|---------------|-------------|------|-------------|------|------|-------------|------|------------------|
| Time Slice 9/3/2012-11/30/2012 Active Days: 65 | 818.85 | 99.70 | 374.77 | 0.54 | 2.28 | 4.40 | 6.69 | 0.81 | 3.95 | 4.76 | 57,219.83 |
| Building 04/01/2012-11/30/2012 | 17.44 | 99.34 | 366.28 | 0.53 | 2.24 | 4.38 | 6.62 | 0.79 | 3.94 | 4.73 | 56,174.60 |
| Building Off Road Diesel | 3.48 | 16.34 | 13.62 | 0.00 | 0.00 | 0.78 | 0.78 | 0.00 | 0.72 | 0.72 | 2,259.28 |
| Building Vendor Trips | 6.16 | 70.88 | 67.24 | 0.18 | 0.67 | 2.87 | 3.54 | 0.23 | 2.63 | 2.85 | 18,771.92 |
| Building Worker Trips | 7.81 | 12.12 | 285.41 | 0.35 | 1.57 | 0.73 | 2.30 | 0.57 | 0.59 | 1.16 | 35,143.40 |
| Coating 09/01/2012-12/31/2012 | 801.41 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Architectural Coating | 801.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.23 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Time Slice 12/3/2012-12/31/2012 Active Days: 21 | 801.41 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Coating 09/01/2012-12/31/2012 | 801.41 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |
| Architectural Coating | 801.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.23 | 0.36 | 8.49 | 0.01 | 0.05 | 0.02 | 0.07 | 0.02 | 0.02 | 0.03 | 1,045.24 |

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 1/1/2012 - 3/31/2012 - Default Fine Site Grading Description

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

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NOX: 20% PM10: 45% PM25: 45%

The following mitigation measures apply to Phase: Paving 2/1/2012 - 3/31/2012 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

The following mitigation measures apply to Phase: Building Construction 4/1/2012 - 11/30/2012 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

NOX: 20% PM10: 45% PM25: 45%

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mxm\Desktop\Weekend Work Shortcuts\Mather Specific Plan\Mather URBEMIS Data\Mather SP Construction Unmitigated.urb924

Project Name: Mather SP Construction

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------------|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| 2012 TOTALS (tons/year unmitigated) | 36.49 | 12.43 | 34.19 | 0.05 | 50.20 | 0.61 | 50.81 | 10.51 | 0.55 | 11.07 | 5,340.75 |

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

| <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|

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| | | | | | | | | | | | |
|------------------------------------|-------|-------|-------|------|-------|------|-------|-------|------|-------|----------|
| 2012 | 36.49 | 12.43 | 34.19 | 0.05 | 50.20 | 0.61 | 50.81 | 10.51 | 0.55 | 11.07 | 5,340.75 |
| Fine Grading 01/01/2012-03/31/2012 | 0.33 | 2.76 | 1.45 | 0.00 | 50.00 | 0.13 | 50.13 | 10.44 | 0.12 | 10.56 | 301.43 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 50.00 | 0.00 | 50.00 | 10.44 | 0.00 | 10.44 | 0.00 |
| Fine Grading Off Road Diesel | 0.32 | 2.73 | 1.37 | 0.00 | 0.00 | 0.13 | 0.13 | 0.00 | 0.12 | 0.12 | 287.39 |
| Fine Grading On Road Diesel | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.96 |
| Fine Grading Worker Trips | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.08 |
| Asphalt 02/01/2012-03/31/2012 | 0.18 | 0.60 | 0.33 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.04 | 0.04 | 79.10 |
| Paving Off-Gas | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving Off Road Diesel | 0.06 | 0.37 | 0.22 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.03 | 0.03 | 30.50 |
| Paving On Road Diesel | 0.02 | 0.23 | 0.08 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 45.59 |
| Paving Worker Trips | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 |
| Building 04/01/2012-11/30/2012 | 1.53 | 9.05 | 32.05 | 0.05 | 0.20 | 0.44 | 0.64 | 0.07 | 0.40 | 0.47 | 4,915.28 |
| Building Off Road Diesel | 0.30 | 1.79 | 1.19 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.11 | 0.11 | 197.69 |
| Building Vendor Trips | 0.54 | 6.20 | 5.88 | 0.02 | 0.06 | 0.25 | 0.31 | 0.02 | 0.23 | 0.25 | 1,642.54 |
| Building Worker Trips | 0.68 | 1.06 | 24.97 | 0.03 | 0.14 | 0.06 | 0.20 | 0.05 | 0.05 | 0.10 | 3,075.05 |
| Coating 09/01/2012-12/31/2012 | 34.46 | 0.02 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.95 |
| Architectural Coating | 34.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.01 | 0.02 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.95 |

Phase Assumptions

Phase: Fine Grading 1/1/2012 - 3/31/2012 - Default Fine Site Grading Description

Total Acres Disturbed: 307.68

Maximum Daily Acreage Disturbed: 76.92

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 37.88

Off-Road Equipment:

- 1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 3 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 2/1/2012 - 3/31/2012 - Default Paving Description

Acres to be Paved: 76.92

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 4/1/2012 - 11/30/2012 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 9/1/2012 - 12/31/2012 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mxm\Desktop\Weekend Work Shortcuts\Mather Specific Plan\Mather URBEMIS Data\Mather SP Construction Mitigated.urb924

Project Name: Mather SP Construction

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------------|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| 2012 TOTALS (tons/year unmitigated) | 36.29 | 10.66 | 33.32 | 0.05 | 9.95 | 0.53 | 10.48 | 2.11 | 0.48 | 2.59 | 5,146.56 |
| 2012 TOTALS (tons/year mitigated) | 32.84 | 10.66 | 33.32 | 0.05 | 9.95 | 0.53 | 10.48 | 2.11 | 0.48 | 2.59 | 5,146.56 |
| Percent Reduction | 9.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

| <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|

10/19/2010 12:17:30 PM

| | | | | | | | | | | | |
|------------------------------------|-------|-------|-------|------|------|------|-------|------|------|------|----------|
| 2012 | 36.29 | 10.66 | 33.32 | 0.05 | 9.95 | 0.53 | 10.48 | 2.11 | 0.48 | 2.59 | 5,146.56 |
| Fine Grading 01/01/2012-03/31/2012 | 0.12 | 0.99 | 0.57 | 0.00 | 9.75 | 0.05 | 9.80 | 2.04 | 0.05 | 2.08 | 107.24 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 9.75 | 0.00 | 9.75 | 2.04 | 0.00 | 2.04 | 0.00 |
| Fine Grading Off Road Diesel | 0.12 | 0.96 | 0.53 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.05 | 0.05 | 97.74 |
| Fine Grading On Road Diesel | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.96 |
| Fine Grading Worker Trips | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.54 |
| Asphalt 02/01/2012-03/31/2012 | 0.18 | 0.60 | 0.33 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.04 | 0.04 | 79.10 |
| Paving Off-Gas | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving Off Road Diesel | 0.06 | 0.37 | 0.22 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.03 | 0.03 | 30.50 |
| Paving On Road Diesel | 0.02 | 0.23 | 0.08 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 45.59 |
| Paving Worker Trips | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 |
| Building 04/01/2012-11/30/2012 | 1.53 | 9.05 | 32.05 | 0.05 | 0.20 | 0.44 | 0.64 | 0.07 | 0.40 | 0.47 | 4,915.28 |
| Building Off Road Diesel | 0.30 | 1.79 | 1.19 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.11 | 0.11 | 197.69 |
| Building Vendor Trips | 0.54 | 6.20 | 5.88 | 0.02 | 0.06 | 0.25 | 0.31 | 0.02 | 0.23 | 0.25 | 1,642.54 |
| Building Worker Trips | 0.68 | 1.06 | 24.97 | 0.03 | 0.14 | 0.06 | 0.20 | 0.05 | 0.05 | 0.10 | 3,075.05 |
| Coating 09/01/2012-12/31/2012 | 34.46 | 0.02 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.95 |
| Architectural Coating | 34.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.01 | 0.02 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.95 |

Phase Assumptions

Phase: Fine Grading 1/1/2012 - 3/31/2012 - Default Fine Site Grading Description

Total Acres Disturbed: 307.68

Maximum Daily Acreage Disturbed: 15

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 37.88

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 2/1/2012 - 3/31/2012 - Default Paving Description

Acres to be Paved: 76.92

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 4/1/2012 - 11/30/2012 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 9/1/2012 - 12/31/2012 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

10/19/2010 12:17:30 PM

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|------------------------------------|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| 2012 | 32.84 | 10.66 | 33.32 | 0.05 | 9.95 | 0.53 | 10.48 | 2.11 | 0.48 | 2.59 | 5,146.56 |
| Fine Grading 01/01/2012-03/31/2012 | 0.12 | 0.99 | 0.57 | 0.00 | 9.75 | 0.05 | 9.80 | 2.04 | 0.05 | 2.08 | 107.24 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 9.75 | 0.00 | 9.75 | 2.04 | 0.00 | 2.04 | 0.00 |
| Fine Grading Off Road Diesel | 0.12 | 0.96 | 0.53 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.05 | 0.05 | 97.74 |
| Fine Grading On Road Diesel | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.96 |
| Fine Grading Worker Trips | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.54 |
| Asphalt 02/01/2012-03/31/2012 | 0.18 | 0.60 | 0.33 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.04 | 0.04 | 79.10 |
| Paving Off-Gas | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving Off Road Diesel | 0.06 | 0.37 | 0.22 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.03 | 0.03 | 30.50 |
| Paving On Road Diesel | 0.02 | 0.23 | 0.08 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 45.59 |
| Paving Worker Trips | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 |
| Building 04/01/2012-11/30/2012 | 1.53 | 9.05 | 32.05 | 0.05 | 0.20 | 0.44 | 0.64 | 0.07 | 0.40 | 0.47 | 4,915.28 |
| Building Off Road Diesel | 0.30 | 1.79 | 1.19 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.11 | 0.11 | 197.69 |
| Building Vendor Trips | 0.54 | 6.20 | 5.88 | 0.02 | 0.06 | 0.25 | 0.31 | 0.02 | 0.23 | 0.25 | 1,642.54 |
| Building Worker Trips | 0.68 | 1.06 | 24.97 | 0.03 | 0.14 | 0.06 | 0.20 | 0.05 | 0.05 | 0.10 | 3,075.05 |
| Coating 09/01/2012-12/31/2012 | 31.02 | 0.02 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.95 |
| Architectural Coating | 31.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.01 | 0.02 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.95 |

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Architectural Coating 9/1/2012 - 12/31/2012 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

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ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\mxm\Desktop\Weekend Work Shortcuts\Mather Specific Plan\Mather URBEMIS Data\Mather SP Alt A Ops Revised 10-14.urb924

Project Name: Mather Specific Plan Ops

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| TOTALS (lbs/day, unmitigated) | 226.52 | 58.85 | 153.82 | 0.01 | 0.44 | 0.44 | 72,212.99 |

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------|------------|------------|-----------|------------|-------------|--------------|--------------|
| TOTALS (lbs/day, unmitigated) | 705.94 | 520.69 | 6,802.05 | 12.00 | 1,911.35 | 363.56 | 1,205,522.12 |

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------|------------|------------|-----------|------------|-------------|--------------|--------------|
| TOTALS (lbs/day, unmitigated) | 932.46 | 579.54 | 6,955.87 | 12.01 | 1,911.79 | 364.00 | 1,277,735.11 |

10/15/2010 5:36:51 PM

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

| <u>Source</u> | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|--------------------------------------|---------------|--------------|---------------|-------------|-------------|--------------|------------------|
| Natural Gas | 4.36 | 57.45 | 31.61 | 0.00 | 0.11 | 0.11 | 72,014.79 |
| Hearth - No Summer Emissions | | | | | | | |
| Landscape | 21.15 | 1.40 | 122.21 | 0.01 | 0.33 | 0.33 | 198.20 |
| Consumer Products | 114.21 | | | | | | |
| Architectural Coatings | 86.80 | | | | | | |
| TOTALS (lbs/day, unmitigated) | 226.52 | 58.85 | 153.82 | 0.01 | 0.44 | 0.44 | 72,212.99 |

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

| <u>Source</u> | <u>ROG</u> | <u>NOX</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM25</u> | <u>CO2</u> |
|--------------------------------------|---------------|---------------|-----------------|--------------|-----------------|---------------|---------------------|
| Single family housing | 109.82 | 83.74 | 1,123.41 | 1.94 | 307.23 | 58.51 | 194,766.21 |
| University/college (4 yrs) | 140.60 | 60.23 | 767.55 | 1.37 | 219.42 | 41.70 | 137,924.71 |
| City park | 44.44 | 42.74 | 544.71 | 0.97 | 155.72 | 29.60 | 97,881.87 |
| Regnl shop. center | 85.49 | 81.04 | 1,029.02 | 1.84 | 294.80 | 56.03 | 185,231.15 |
| Strip mall | 44.98 | 42.77 | 543.05 | 0.97 | 155.58 | 29.57 | 97,752.62 |
| General light industry | 249.19 | 187.03 | 2,488.50 | 4.37 | 693.07 | 131.88 | 437,965.66 |
| Industrial park | 31.42 | 23.14 | 305.81 | 0.54 | 85.53 | 16.27 | 53,999.90 |
| TOTALS (lbs/day, unmitigated) | 705.94 | 520.69 | 6,802.05 | 12.00 | 1,911.35 | 363.56 | 1,205,522.12 |

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 Temperature (F): 95 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

| Land Use Type | Acreage | Trip Rate | Unit Type | No. Units | Total Trips | Total VMT |
|----------------------------|---------|-----------|----------------|-----------|-------------|--------------|
| Single family housing | 843.33 | 8.27 | dwelling units | 2,530.00 | 20,923.10 | 178,886.24 |
| University/college (4 yrs) | | 2.28 | students | 7,500.00 | 17,100.00 | 127,822.50 |
| City park | | 44.29 | acres | 274.00 | 12,135.46 | 90,712.57 |
| Regnl shop. center | | 36.97 | 1000 sq ft | 630.32 | 23,302.93 | 171,742.61 |
| Strip mall | | 38.41 | 1000 sq ft | 320.17 | 12,297.73 | 90,634.27 |
| General light industry | | 7.17 | 1000 sq ft | 6,220.37 | 44,600.05 | 403,630.50 |
| Industrial park | | 6.92 | 1000 sq ft | 822.41 | 5,691.08 | 49,811.15 |
| | | | | | 136,050.35 | 1,113,239.84 |

Vehicle Fleet Mix

| Vehicle Type | Percent Type | Non-Catalyst | Catalyst | Diesel |
|------------------------------------|--------------|--------------|----------|--------|
| Light Auto | 47.5 | 0.0 | 100.0 | 0.0 |
| Light Truck < 3750 lbs | 10.0 | 0.0 | 97.0 | 3.0 |
| Light Truck 3751-5750 lbs | 22.8 | 0.0 | 100.0 | 0.0 |
| Med Truck 5751-8500 lbs | 10.2 | 0.0 | 100.0 | 0.0 |
| Lite-Heavy Truck 8501-10,000 lbs | 2.1 | 0.0 | 76.2 | 23.8 |
| Lite-Heavy Truck 10,001-14,000 lbs | 0.9 | 0.0 | 55.6 | 44.4 |

Vehicle Fleet Mix

| Vehicle Type | Percent Type | Non-Catalyst | Catalyst | Diesel |
|-------------------------------------|--------------|--------------|----------|--------|
| Med-Heavy Truck 14,001-33,000 lbs | 1.6 | 0.0 | 18.8 | 81.2 |
| Heavy-Heavy Truck 33,001-60,000 lbs | 0.4 | 0.0 | 0.0 | 100.0 |
| Other Bus | 0.1 | 0.0 | 0.0 | 100.0 |
| Urban Bus | 0.0 | 0.0 | 0.0 | 0.0 |
| Motorcycle | 3.5 | 40.0 | 60.0 | 0.0 |
| School Bus | 0.1 | 0.0 | 0.0 | 100.0 |
| Motor Home | 0.8 | 0.0 | 87.5 | 12.5 |

Travel Conditions

| | Residential | | | Commercial | | |
|---------------------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commuter | Non-Work | Customer |
| Urban Trip Length (miles) | 10.8 | 7.3 | 7.5 | 10.8 | 7.3 | 7.3 |
| Rural Trip Length (miles) | 15.0 | 10.0 | 10.0 | 15.0 | 10.0 | 10.0 |
| Trip speeds (mph) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| % of Trips - Residential | 32.9 | 18.0 | 49.1 | | | |

% of Trips - Commercial (by land use)

| | | | |
|----------------------------|------|------|------|
| University/college (4 yrs) | 5.0 | 2.5 | 92.5 |
| City park | 5.0 | 2.5 | 92.5 |
| Regnl shop. center | 2.0 | 1.0 | 97.0 |
| Strip mall | 2.0 | 1.0 | 97.0 |
| General light industry | 50.0 | 25.0 | 25.0 |

Travel Conditions

| | Residential | | | Commercial | | |
|-----------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commute | Non-Work | Customer |
| Industrial park | | | | 41.5 | 20.8 | 37.8 |

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\mxm\Desktop\Weekend Work Shortcuts\Mather Specific Plan\Mather URBEMIS Data\Mather SP Alt A Ops Revised 10-14.urb924

Project Name: Mather Specific Plan Ops

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| TOTALS (lbs/day, unmitigated) | 435.50 | 111.86 | 2,120.12 | 6.88 | 340.97 | 328.22 | 147,185.58 |

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| TOTALS (lbs/day, unmitigated) | 565.81 | 778.07 | 5,736.64 | 9.56 | 1,911.35 | 363.56 | 964,536.93 |

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------|------------|------------|-----------|------------|-------------|--------------|--------------|
| TOTALS (lbs/day, unmitigated) | 1,001.31 | 889.93 | 7,856.76 | 16.44 | 2,252.32 | 691.78 | 1,111,722.51 |

10/15/2010 5:37:21 PM

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

| <u>Source</u> | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|--------------------------------------|---------------|---------------|-----------------|-------------|---------------|---------------|-------------------|
| Natural Gas | 4.36 | 57.45 | 31.61 | 0.00 | 0.11 | 0.11 | 72,014.79 |
| Hearth | 230.13 | 54.41 | 2,088.51 | 6.88 | 340.86 | 328.11 | 75,170.79 |
| Landscaping - No Winter Emissions | | | | | | | |
| Consumer Products | 114.21 | | | | | | |
| Architectural Coatings | 86.80 | | | | | | |
| TOTALS (lbs/day, unmitigated) | 435.50 | 111.86 | 2,120.12 | 6.88 | 340.97 | 328.22 | 147,185.58 |

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

| <u>Source</u> | <u>ROG</u> | <u>NOX</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM25</u> | <u>CO2</u> |
|--------------------------------------|---------------|---------------|-----------------|-------------|-----------------|---------------|-------------------|
| Single family housing | 91.59 | 125.11 | 944.14 | 1.55 | 307.23 | 58.51 | 156,042.35 |
| University/college (4 yrs) | 70.12 | 89.88 | 655.73 | 1.09 | 219.42 | 41.70 | 110,254.73 |
| City park | 45.32 | 63.78 | 465.35 | 0.77 | 155.72 | 29.60 | 78,245.14 |
| Regnl shop. center | 86.04 | 120.89 | 881.06 | 1.47 | 294.80 | 56.03 | 148,053.69 |
| Strip mall | 45.40 | 63.80 | 464.96 | 0.77 | 155.58 | 29.57 | 78,132.85 |
| General light industry | 202.26 | 279.98 | 2,069.94 | 3.48 | 693.07 | 131.88 | 350,590.98 |
| Industrial park | 25.08 | 34.63 | 255.46 | 0.43 | 85.53 | 16.27 | 43,217.19 |
| TOTALS (lbs/day, unmitigated) | 565.81 | 778.07 | 5,736.64 | 9.56 | 1,911.35 | 363.56 | 964,536.93 |

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 Temperature (F): 50 Season: Winter

Erfac: Version : Erfac2007 V2.3 Nov 1 2006

Summary of Land Uses

| Land Use Type | Acreage | Trip Rate | Unit Type | No. Units | Total Trips | Total VMT |
|----------------------------|---------|-----------|----------------|-----------|-------------|--------------|
| Single family housing | 843.33 | 8.27 | dwelling units | 2,530.00 | 20,923.10 | 178,886.24 |
| University/college (4 yrs) | | 2.28 | students | 7,500.00 | 17,100.00 | 127,822.50 |
| City park | | 44.29 | acres | 274.00 | 12,135.46 | 90,712.57 |
| Regnl shop. center | | 36.97 | 1000 sq ft | 630.32 | 23,302.93 | 171,742.61 |
| Strip mall | | 38.41 | 1000 sq ft | 320.17 | 12,297.73 | 90,634.27 |
| General light industry | | 7.17 | 1000 sq ft | 6,220.37 | 44,600.05 | 403,630.50 |
| Industrial park | | 6.92 | 1000 sq ft | 822.41 | 5,691.08 | 49,811.15 |
| | | | | | 136,050.35 | 1,113,239.84 |

Vehicle Fleet Mix

| Vehicle Type | Percent Type | Non-Catalyst | Catalyst | Diesel |
|------------------------------------|--------------|--------------|----------|--------|
| Light Auto | 47.5 | 0.0 | 100.0 | 0.0 |
| Light Truck < 3750 lbs | 10.0 | 0.0 | 97.0 | 3.0 |
| Light Truck 3751-5750 lbs | 22.8 | 0.0 | 100.0 | 0.0 |
| Med Truck 5751-8500 lbs | 10.2 | 0.0 | 100.0 | 0.0 |
| Lite-Heavy Truck 8501-10,000 lbs | 2.1 | 0.0 | 76.2 | 23.8 |
| Lite-Heavy Truck 10,001-14,000 lbs | 0.9 | 0.0 | 55.6 | 44.4 |

Vehicle Fleet Mix

| Vehicle Type | Percent Type | Non-Catalyst | Catalyst | Diesel |
|-------------------------------------|--------------|--------------|----------|--------|
| Med-Heavy Truck 14,001-33,000 lbs | 1.6 | 0.0 | 18.8 | 81.2 |
| Heavy-Heavy Truck 33,001-60,000 lbs | 0.4 | 0.0 | 0.0 | 100.0 |
| Other Bus | 0.1 | 0.0 | 0.0 | 100.0 |
| Urban Bus | 0.0 | 0.0 | 0.0 | 0.0 |
| Motorcycle | 3.5 | 40.0 | 60.0 | 0.0 |
| School Bus | 0.1 | 0.0 | 0.0 | 100.0 |
| Motor Home | 0.8 | 0.0 | 87.5 | 12.5 |

Travel Conditions

| | Residential | | | Commercial | | |
|---------------------------------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commute | Non-Work | Customer |
| Urban Trip Length (miles) | 10.8 | 7.3 | 7.5 | 10.8 | 7.3 | 7.3 |
| Rural Trip Length (miles) | 15.0 | 10.0 | 10.0 | 15.0 | 10.0 | 10.0 |
| Trip speeds (mph) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| % of Trips - Residential | 32.9 | 18.0 | 49.1 | | | |
| % of Trips - Commercial (by land use) | | | | | | |
| University/college (4 yrs) | | | | 5.0 | 2.5 | 92.5 |
| City park | | | | 5.0 | 2.5 | 92.5 |
| Regnl shop. center | | | | 2.0 | 1.0 | 97.0 |
| Strip mall | | | | 2.0 | 1.0 | 97.0 |
| General light industry | | | | 50.0 | 25.0 | 25.0 |

Travel Conditions

| | Residential | | | Commercial | | |
|-----------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commute | Non-Work | Customer |
| Industrial park | | | | 41.5 | 20.8 | 37.8 |

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mxm\Desktop\Weekend Work Shortcuts\Mather Specific Plan\Mather URBEMIS Data\Mather SP Alt A Ops Revised 10-14.urb924

Project Name: Mather Specific Plan Ops

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|---------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| TOTALS (tons/year, unmitigated) | 48.79 | 12.29 | 102.16 | 0.28 | 13.98 | 13.46 | 15,537.34 |

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|---------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| TOTALS (tons/year, unmitigated) | 120.29 | 110.68 | 1,176.58 | 2.04 | 348.82 | 66.35 | 205,347.85 |

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|---------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| TOTALS (tons/year, unmitigated) | 169.08 | 122.97 | 1,278.74 | 2.32 | 362.80 | 79.81 | 220,885.19 |

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

| <u>Source</u> | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|----------------------------------------|--------------|--------------|---------------|-------------|--------------|--------------|------------------|
| Natural Gas | 0.80 | 10.48 | 5.77 | 0.00 | 0.02 | 0.02 | 13,142.70 |
| Hearth | 9.41 | 1.68 | 85.39 | 0.28 | 13.93 | 13.41 | 2,376.80 |
| Landscape | 1.90 | 0.13 | 11.00 | 0.00 | 0.03 | 0.03 | 17.84 |
| Consumer Products | 20.84 | | | | | | |
| Architectural Coatings | 15.84 | | | | | | |
| TOTALS (tons/year, unmitigated) | 48.79 | 12.29 | 102.16 | 0.28 | 13.98 | 13.46 | 15,537.34 |

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

| <u>Source</u> | <u>ROG</u> | <u>NOX</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM25</u> | <u>CO2</u> |
|----------------------------------------|---------------|---------------|-----------------|-------------|---------------|--------------|-------------------|
| Single family housing | 18.93 | 17.80 | 194.12 | 0.33 | 56.07 | 10.68 | 33,189.13 |
| University/college (4 yrs) | 21.37 | 12.80 | 133.28 | 0.23 | 40.04 | 7.61 | 23,488.00 |
| City park | 8.16 | 9.08 | 94.58 | 0.17 | 28.42 | 5.40 | 16,668.87 |
| Regnl shop. center | 15.63 | 17.21 | 178.80 | 0.31 | 53.80 | 10.22 | 31,543.06 |
| Strip mall | 8.23 | 9.08 | 94.36 | 0.17 | 28.39 | 5.40 | 16,646.32 |
| General light industry | 42.62 | 39.79 | 428.69 | 0.74 | 126.49 | 24.07 | 74,613.44 |
| Industrial park | 5.35 | 4.92 | 52.75 | 0.09 | 15.61 | 2.97 | 9,199.03 |
| TOTALS (tons/year, unmitigated) | 120.29 | 110.68 | 1,176.58 | 2.04 | 348.82 | 66.35 | 205,347.85 |

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

| Land Use Type | Acreage | Trip Rate | Unit Type | No. Units | Total Trips | Total VMT |
|----------------------------|---------|-----------|----------------|-----------|-------------|--------------|
| Single family housing | 843.33 | 8.27 | dwelling units | 2,530.00 | 20,923.10 | 178,886.24 |
| University/college (4 yrs) | | 2.28 | students | 7,500.00 | 17,100.00 | 127,822.50 |
| City park | | 44.29 | acres | 274.00 | 12,135.46 | 90,712.57 |
| Regnl shop. center | | 36.97 | 1000 sq ft | 630.32 | 23,302.93 | 171,742.61 |
| Strip mall | | 38.41 | 1000 sq ft | 320.17 | 12,297.73 | 90,634.27 |
| General light industry | | 7.17 | 1000 sq ft | 6,220.37 | 44,600.05 | 403,630.50 |
| Industrial park | | 6.92 | 1000 sq ft | 822.41 | 5,691.08 | 49,811.15 |
| | | | | | 136,050.35 | 1,113,239.84 |

Vehicle Fleet Mix

| Vehicle Type | Percent Type | Non-Catalyst | Catalyst | Diesel |
|------------------------------------|--------------|--------------|----------|--------|
| Light Auto | 47.5 | 0.0 | 100.0 | 0.0 |
| Light Truck < 3750 lbs | 10.0 | 0.0 | 97.0 | 3.0 |
| Light Truck 3751-5750 lbs | 22.8 | 0.0 | 100.0 | 0.0 |
| Med Truck 5751-8500 lbs | 10.2 | 0.0 | 100.0 | 0.0 |
| Lite-Heavy Truck 8501-10,000 lbs | 2.1 | 0.0 | 76.2 | 23.8 |
| Lite-Heavy Truck 10,001-14,000 lbs | 0.9 | 0.0 | 55.6 | 44.4 |

Vehicle Fleet Mix

| Vehicle Type | Percent Type | Non-Catalyst | Catalyst | Diesel |
|-------------------------------------|--------------|--------------|----------|--------|
| Med-Heavy Truck 14,001-33,000 lbs | 1.6 | 0.0 | 18.8 | 81.2 |
| Heavy-Heavy Truck 33,001-60,000 lbs | 0.4 | 0.0 | 0.0 | 100.0 |
| Other Bus | 0.1 | 0.0 | 0.0 | 100.0 |
| Urban Bus | 0.0 | 0.0 | 0.0 | 0.0 |
| Motorcycle | 3.5 | 40.0 | 60.0 | 0.0 |
| School Bus | 0.1 | 0.0 | 0.0 | 100.0 |
| Motor Home | 0.8 | 0.0 | 87.5 | 12.5 |

Travel Conditions

| | Residential | | | Commercial | | |
|---------------------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commute | Non-Work | Customer |
| Urban Trip Length (miles) | 10.8 | 7.3 | 7.5 | 10.8 | 7.3 | 7.3 |
| Rural Trip Length (miles) | 15.0 | 10.0 | 10.0 | 15.0 | 10.0 | 10.0 |
| Trip speeds (mph) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| % of Trips - Residential | 32.9 | 18.0 | 49.1 | | | |

% of Trips - Commercial (by land use)

| | | | |
|----------------------------|------|------|------|
| University/college (4 yrs) | 5.0 | 2.5 | 92.5 |
| City park | 5.0 | 2.5 | 92.5 |
| Regnl shop. center | 2.0 | 1.0 | 97.0 |
| Strip mall | 2.0 | 1.0 | 97.0 |
| General light industry | 50.0 | 25.0 | 25.0 |

Travel Conditions

| | Residential | | | Commercial | | |
|-----------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commuter | Non-Work | Customer |
| Industrial park | | | | 41.5 | 20.8 | 37.8 |

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\mxm\Desktop\Weekend Work Shortcuts\Mather Specific Plan\Mather URBEMIS Data\Mather SP Aggregate.urb924

Project Name: Mather SP Aggregate

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|-----------------------------------|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| 2012 TOTALS (lbs/day unmitigated) | 4.09 | 39.83 | 19.68 | 0.04 | 300.17 | 2.15 | 302.31 | 62.71 | 1.97 | 64.68 | 6,532.28 |
| 2012 TOTALS (lbs/day mitigated) | 4.09 | 39.83 | 19.68 | 0.04 | 142.10 | 2.15 | 144.24 | 29.70 | 1.97 | 31.67 | 6,532.28 |
| 2013 TOTALS (lbs/day unmitigated) | 3.74 | 35.80 | 18.62 | 0.04 | 300.17 | 1.89 | 302.05 | 62.71 | 1.74 | 64.44 | 6,532.35 |
| 2013 TOTALS (lbs/day mitigated) | 3.74 | 35.80 | 18.62 | 0.04 | 142.10 | 1.89 | 143.98 | 29.70 | 1.74 | 31.43 | 6,532.35 |
| 2014 TOTALS (lbs/day unmitigated) | 3.42 | 32.07 | 17.69 | 0.04 | 300.17 | 1.65 | 301.81 | 62.71 | 1.51 | 64.22 | 6,532.41 |
| 2014 TOTALS (lbs/day mitigated) | 3.42 | 32.07 | 17.69 | 0.04 | 142.10 | 1.65 | 143.74 | 29.70 | 1.51 | 31.21 | 6,532.41 |
| 2015 TOTALS (lbs/day unmitigated) | 3.15 | 28.60 | 16.87 | 0.04 | 300.17 | 1.46 | 301.63 | 62.71 | 1.34 | 64.05 | 6,532.44 |
| 2015 TOTALS (lbs/day mitigated) | 3.15 | 28.60 | 16.87 | 0.04 | 142.10 | 1.46 | 143.56 | 29.70 | 1.34 | 31.04 | 6,532.44 |
| 2016 TOTALS (lbs/day unmitigated) | 2.91 | 25.52 | 16.19 | 0.04 | 300.17 | 1.26 | 301.43 | 62.71 | 1.16 | 63.87 | 6,532.45 |
| 2016 TOTALS (lbs/day mitigated) | 2.91 | 25.52 | 16.19 | 0.04 | 142.10 | 1.26 | 143.36 | 29.70 | 1.16 | 30.86 | 6,532.45 |

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

| <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|

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| | | | | | | | | | | | |
|------------------------------------|-------------|--------------|--------------|-------------|---------------|-------------|---------------|--------------|-------------|--------------|-----------------|
| Time Slice 1/2/2012-12/31/2012 | <u>4.09</u> | <u>39.83</u> | <u>19.68</u> | <u>0.04</u> | <u>300.17</u> | <u>2.15</u> | <u>302.31</u> | <u>62.71</u> | <u>1.97</u> | <u>64.68</u> | <u>6,532.28</u> |
| Active Days: 261 | | | | | | | | | | | |
| Fine Grading 01/01/2012-12/31/2016 | 4.09 | 39.83 | 19.68 | 0.04 | 300.17 | 2.15 | 302.31 | 62.71 | 1.97 | 64.68 | 6,532.28 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 0.00 | 300.00 | 62.65 | 0.00 | 62.65 | 0.00 |
| Fine Grading Off Road Diesel | 2.41 | 16.81 | 10.28 | 0.00 | 0.00 | 1.24 | 1.24 | 0.00 | 1.14 | 1.14 | 1,849.73 |
| Fine Grading On Road Diesel | 1.65 | 22.97 | 8.26 | 0.04 | 0.16 | 0.90 | 1.06 | 0.05 | 0.83 | 0.88 | 4,542.82 |
| Fine Grading Worker Trips | 0.03 | 0.05 | 1.13 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.73 |
| Time Slice 1/1/2013-12/31/2013 | <u>3.74</u> | <u>35.80</u> | <u>18.62</u> | <u>0.04</u> | <u>300.17</u> | <u>1.89</u> | <u>302.05</u> | <u>62.71</u> | <u>1.74</u> | <u>64.44</u> | <u>6,532.35</u> |
| Active Days: 261 | | | | | | | | | | | |
| Fine Grading 01/01/2012-12/31/2016 | 3.74 | 35.80 | 18.62 | 0.04 | 300.17 | 1.89 | 302.05 | 62.71 | 1.74 | 64.44 | 6,532.35 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 0.00 | 300.00 | 62.65 | 0.00 | 62.65 | 0.00 |
| Fine Grading Off Road Diesel | 2.21 | 15.57 | 10.17 | 0.00 | 0.00 | 1.10 | 1.10 | 0.00 | 1.01 | 1.01 | 1,849.73 |
| Fine Grading On Road Diesel | 1.51 | 20.18 | 7.41 | 0.04 | 0.16 | 0.79 | 0.95 | 0.05 | 0.73 | 0.78 | 4,542.82 |
| Fine Grading Worker Trips | 0.03 | 0.04 | 1.04 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.80 |
| Time Slice 1/1/2014-12/31/2014 | <u>3.42</u> | <u>32.07</u> | <u>17.69</u> | <u>0.04</u> | <u>300.17</u> | <u>1.65</u> | <u>301.81</u> | <u>62.71</u> | <u>1.51</u> | <u>64.22</u> | <u>6,532.41</u> |
| Active Days: 261 | | | | | | | | | | | |
| Fine Grading 01/01/2012-12/31/2016 | 3.42 | 32.07 | 17.69 | 0.04 | 300.17 | 1.65 | 301.81 | 62.71 | 1.51 | 64.22 | 6,532.41 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 0.00 | 300.00 | 62.65 | 0.00 | 62.65 | 0.00 |
| Fine Grading Off Road Diesel | 2.02 | 14.34 | 10.09 | 0.00 | 0.00 | 0.95 | 0.95 | 0.00 | 0.88 | 0.88 | 1,849.73 |
| Fine Grading On Road Diesel | 1.37 | 17.69 | 6.64 | 0.04 | 0.16 | 0.69 | 0.85 | 0.05 | 0.63 | 0.69 | 4,542.82 |
| Fine Grading Worker Trips | 0.03 | 0.04 | 0.96 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.86 |

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| | | | | | | | | | | | |
|----------------------------------------------------|-------------|--------------|--------------|-------------|---------------|-------------|---------------|--------------|-------------|--------------|-----------------|
| Time Slice 1/1/2015-12/31/2015 Active Days: 261 | <u>3.15</u> | <u>28.60</u> | <u>16.87</u> | <u>0.04</u> | <u>300.17</u> | <u>1.46</u> | <u>301.63</u> | <u>62.71</u> | <u>1.34</u> | <u>64.05</u> | <u>6,532.44</u> |
| Fine Grading 01/01/2012-12/31/2016 | 3.15 | 28.60 | 16.87 | 0.04 | 300.17 | 1.46 | 301.63 | 62.71 | 1.34 | 64.05 | 6,532.44 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 0.00 | 300.00 | 62.65 | 0.00 | 62.65 | 0.00 |
| Fine Grading Off Road Diesel | 1.87 | 12.98 | 9.99 | 0.00 | 0.00 | 0.85 | 0.85 | 0.00 | 0.79 | 0.79 | 1,849.73 |
| Fine Grading On Road Diesel | 1.26 | 15.59 | 6.00 | 0.04 | 0.16 | 0.60 | 0.76 | 0.05 | 0.56 | 0.61 | 4,542.82 |
| Fine Grading Worker Trips | 0.02 | 0.04 | 0.88 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.90 |
| Time Slice 1/1/2016-12/30/2016 Active Days: 261 | <u>2.91</u> | <u>25.52</u> | <u>16.19</u> | <u>0.04</u> | <u>300.17</u> | <u>1.26</u> | <u>301.43</u> | <u>62.71</u> | <u>1.16</u> | <u>63.87</u> | <u>6,532.45</u> |
| Fine Grading 01/01/2012-12/31/2016 | 2.91 | 25.52 | 16.19 | 0.04 | 300.17 | 1.26 | 301.43 | 62.71 | 1.16 | 63.87 | 6,532.45 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 0.00 | 300.00 | 62.65 | 0.00 | 62.65 | 0.00 |
| Fine Grading Off Road Diesel | 1.72 | 11.73 | 9.93 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.67 | 0.67 | 1,849.73 |
| Fine Grading On Road Diesel | 1.16 | 13.76 | 5.44 | 0.04 | 0.16 | 0.53 | 0.69 | 0.05 | 0.49 | 0.54 | 4,542.82 |
| Fine Grading Worker Trips | 0.02 | 0.03 | 0.82 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 139.90 |

Phase Assumptions

Phase: Fine Grading 1/1/2012 - 12/31/2016 - Default Fine Site Grading Description
 Total Acres Disturbed: 60
 Maximum Daily Acreage Disturbed: 15
 Fugitive Dust Level of Detail: Default
 20 lbs per acre-day
 On Road Truck Travel (VMT): 1128.37
 Off-Road Equipment:
 4 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mxm\Desktop\Weekend Work Shortcuts\Mather Specific Plan\Mather URBEMIS Data\Mather SP Aggregate.urb924

Project Name: Mather SP Aggregate

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------------|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| 2012 TOTALS (tons/year unmitigated) | 0.53 | 5.20 | 2.57 | 0.01 | 39.17 | 0.28 | 39.45 | 8.18 | 0.26 | 8.44 | 852.46 |
| 2012 TOTALS (tons/year mitigated) | 0.53 | 5.20 | 2.57 | 0.01 | 18.54 | 0.28 | 18.82 | 3.88 | 0.26 | 4.13 | 852.46 |
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 52.66 | 0.00 | 52.29 | 52.64 | 0.00 | 51.04 | 0.00 |
| 2013 TOTALS (tons/year unmitigated) | 0.49 | 4.67 | 2.43 | 0.01 | 39.17 | 0.25 | 39.42 | 8.18 | 0.23 | 8.41 | 852.47 |
| 2013 TOTALS (tons/year mitigated) | 0.49 | 4.67 | 2.43 | 0.01 | 18.54 | 0.25 | 18.79 | 3.88 | 0.23 | 4.10 | 852.47 |
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 52.66 | 0.00 | 52.33 | 52.64 | 0.00 | 51.22 | 0.00 |
| 2014 TOTALS (tons/year unmitigated) | 0.45 | 4.18 | 2.31 | 0.01 | 39.17 | 0.21 | 39.39 | 8.18 | 0.20 | 8.38 | 852.48 |
| 2014 TOTALS (tons/year mitigated) | 0.45 | 4.18 | 2.31 | 0.01 | 18.54 | 0.21 | 18.76 | 3.88 | 0.20 | 4.07 | 852.48 |
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 52.66 | 0.00 | 52.37 | 52.64 | 0.00 | 51.40 | 0.00 |

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| | | | | | | | | | | | |
|------------------------------------|------|------|------|------|-------|------|-------|------|------|------|--------|
| 2016 | 0.38 | 3.33 | 2.11 | 0.01 | 39.17 | 0.16 | 39.34 | 8.18 | 0.15 | 8.33 | 852.48 |
| Fine Grading 01/01/2012-12/31/2016 | 0.38 | 3.33 | 2.11 | 0.01 | 39.17 | 0.16 | 39.34 | 8.18 | 0.15 | 8.33 | 852.48 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 39.15 | 0.00 | 39.15 | 8.18 | 0.00 | 8.18 | 0.00 |
| Fine Grading Off Road Diesel | 0.22 | 1.53 | 1.30 | 0.00 | 0.00 | 0.09 | 0.09 | 0.00 | 0.09 | 0.09 | 241.39 |
| Fine Grading On Road Diesel | 0.15 | 1.80 | 0.71 | 0.01 | 0.02 | 0.07 | 0.09 | 0.01 | 0.06 | 0.07 | 592.84 |
| Fine Grading Worker Trips | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.26 |

Phase Assumptions

Phase: Fine Grading 1/1/2012 - 12/31/2016 - Default Fine Site Grading Description
 Total Acres Disturbed: 60
 Maximum Daily Acreage Disturbed: 15
 Fugitive Dust Level of Detail: Default
 20 lbs per acre-day
 On Road Truck Travel (VMT): 1128.37
 Off-Road Equipment:
 4 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

ROG NOx CO SO2 PM10 Dust PM10 Exhaust PM10 PM2.5 Dust PM2.5 Exhaust PM2.5 CO2

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| | | | | | | | | | | | |
|------------------------------------|------|------|------|------|-------|------|-------|------|------|------|--------|
| 2015 | 0.41 | 3.73 | 2.20 | 0.01 | 18.54 | 0.19 | 18.73 | 3.88 | 0.18 | 4.05 | 852.48 |
| Fine Grading 01/01/2012-12/31/2016 | 0.41 | 3.73 | 2.20 | 0.01 | 18.54 | 0.19 | 18.73 | 3.88 | 0.18 | 4.05 | 852.48 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 18.52 | 0.00 | 18.52 | 3.87 | 0.00 | 3.87 | 0.00 |
| Fine Grading Off Road Diesel | 0.24 | 1.69 | 1.30 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.10 | 0.10 | 241.39 |
| Fine Grading On Road Diesel | 0.16 | 2.03 | 0.78 | 0.01 | 0.02 | 0.08 | 0.10 | 0.01 | 0.07 | 0.08 | 592.84 |
| Fine Grading Worker Trips | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.26 |
| 2016 | 0.38 | 3.33 | 2.11 | 0.01 | 18.54 | 0.16 | 18.71 | 3.88 | 0.15 | 4.03 | 852.48 |
| Fine Grading 01/01/2012-12/31/2016 | 0.38 | 3.33 | 2.11 | 0.01 | 18.54 | 0.16 | 18.71 | 3.88 | 0.15 | 4.03 | 852.48 |
| Fine Grading Dust | 0.00 | 0.00 | 0.00 | 0.00 | 18.52 | 0.00 | 18.52 | 3.87 | 0.00 | 3.87 | 0.00 |
| Fine Grading Off Road Diesel | 0.22 | 1.53 | 1.30 | 0.00 | 0.00 | 0.09 | 0.09 | 0.00 | 0.09 | 0.09 | 241.39 |
| Fine Grading On Road Diesel | 0.15 | 1.80 | 0.71 | 0.01 | 0.02 | 0.07 | 0.09 | 0.01 | 0.06 | 0.07 | 592.84 |
| Fine Grading Worker Trips | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.26 |

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 1/1/2012 - 12/31/2016 - Default Fine Site Grading Description

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

GHG QUANTIFICATION FROM PROJECT ELECTRICITY USAGE

Indirect Greenhouse Gas (GHG) Emissions from Project use of Electricity (Power Plant Emissions)

| | | | |
|-----------------------------------------------------------------------|------------------|-------------------------|------------------|
| Typical SMUD Residential Customer Annual Household Energy Use: | 9250 kWh/yr | per household | per SMAQMD, 2009 |
| Typical SMUD Commercial Customer Annual Energy Use (per square foot): | 17 kWh/yr | per square foot | per SMAQMD, 2009 |
| School Annual Energy Use (per student): | 941 kWh/yr | per student | DGS, 2007 |
| Water Conveyance Electricity: | 2328700 kWh/year | | CEC, 2005 |
| Wastewater Conveyance Electricity: | 3558750 kWh/year | | CEC, 2005 |
| Residential Units: | 2901 | | |
| Commercial Square Feet: | 8868279 | | |
| Students: | 8300 | At all schools proposed | |

Estimated Project Annual Electrical Use: 191,292,743 kWh (kilowatt hours)/yr
191,293 mWh (megawatt hours)/yr

| Indirect GHG gases | Emission Factor lb/mWh | Annual | | CO2 Equivalent Factor | Annual CO2 Equivalent Emissions (metric tons) |
|-------------------------------------------------------------------|---------------------------|----------------------------|---------------------|-----------------------------|-----------------------------------------------------|
| | | Project Electricity mWh | GHGs metric tons | | |
| Carbon Dioxide (CO2) | 555.26 | 191,293 | 48,179 | 1 | 48179.4 |
| Nitrous Oxide (N2O) | 0.011 | 191,293 | 1.0 | 296 | 282.5 |
| Methane (CH4) | 0.029 | 191,293 | 2.5 | 23 | 57.9 |
| Total Indirect GHG Emissions from Project Electricity Use= | | | | | 48520 annual average |

Notes and References:

Total Emissions from Indirect Electricity Use

CO2, CH4, and N2O Emission Factor Source: Local Government Operations Protocol (CARB et al., 2008)

Specifically Tables G.5 and G.6 (Appendix G)

lbs/metric ton = 2204.62

CALCULATION OF METHANE AND N2O EMISSIONS

Vehicles:

From URBEMIS 2007: 205,347.85 tons per year of CO2

Vehicle Emissions = 186288.43 metric tons per year of CO2

From Table 6 California Greenhouse Gas Emissions and Sink Summary:

| | | | |
|---------------------------------------------------|--------------|---------|--|
| in 2004 transportation fossil fuel combustion was | 188 MMT CO2 | | |
| Mobile source combustion | 0.6 MMT CH4 | as eCO2 | |
| Mobile Source Combustion | 11.8 MMT N2O | as eCO2 | |

| | | | |
|--------------------------|-----------------|-------------------------------|--|
| So for Mobile sources... | CH4 emission = | 0.32 percent of CO2 Emissions | |
| | N2O emissions = | 6.28 percent of CO2 Emissions | |

| | | | |
|--|-----------------|---------------------------|---------|
| | CH4 emissions = | 596.12 metric tons/year | as eCO2 |
| | N2O emissions = | 11698.91 metric tons/year | as eCO2 |

Area Sources

From URBEMIS 2007: 15,537.34 tons per year of CO2

Natural Gas = 14095.237 metric tons per year of CO2

From Table 6 California Greenhouse Gas Emissions and Sink Summary:

| | | | |
|------------------------------------------------|--------------|---------|--|
| in 2004 residential fossil fuel combustion was | 27.9 MMT CO2 | | |
| Stationary source combustion | 1.3 MMT CH4 | as eCO2 | |
| Stationary Source Combustion | 0.2 MMT N2O | as eCO2 | |

| | | | |
|------------------------------|-----------------|-------------------------------|--|
| So for Stationary sources... | CH4 emission = | 4.66 percent of CO2 Emissions | |
| | N2O emissions = | 0.72 percent of CO2 Emissions | |

| | | | |
|--|-----------------|-------------------------|---------|
| | CH4 emissions = | 656.84 metric tons/year | as eCO2 |
| | N2O emissions = | 101.49 metric tons/year | as eCO2 |

Appendix D

Biological Database Reports



Selected Elements by Scientific Name

California Department of Fish and Game

California Natural Diversity Database



| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFG SSC or FP |
|--------------------------------------------------------------------------------------|--------------|----------------|--------------|-------------|------------|--------------------------------|
| <i>Accipiter cooperii</i> Cooper's hawk | ABNKC12040 | None | None | G5 | S3 | WL |
| <i>Agelaius tricolor</i> tricolored blackbird | ABPBXB0020 | None | None | G2G3 | S2 | SSC |
| <i>Aquila chrysaetos</i> golden eagle | ABNKC22010 | None | None | G5 | S3 | FP |
| <i>Ardea alba</i> great egret | ABNGA04040 | None | None | G5 | S4 | |
| <i>Ardea herodias</i> great blue heron | ABNGA04010 | None | None | G5 | S4 | |
| <i>Athene cunicularia</i> burrowing owl | ABNSB10010 | None | None | G4 | S2 | SSC |
| <i>Branchinecta lynchi</i> vernal pool fairy shrimp | ICBRA03030 | Threatened | None | G3 | S2S3 | |
| <i>Branchinecta mesovallensis</i> midvalley fairy shrimp | ICBRA03150 | None | None | G2 | S2 | |
| <i>Buteo regalis</i> ferruginous hawk | ABNKC19120 | None | None | G4 | S3S4 | WL |
| <i>Buteo swainsoni</i> Swainson's hawk | ABNKC19070 | None | Threatened | G5 | S2 | |
| <i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle | IICOL48011 | Threatened | None | G3T2 | S2 | |
| <i>Dumontia oregonensis</i> hairy water flea | ICBRA23010 | None | None | G1G3 | S1 | |
| <i>Elanus leucurus</i> white-tailed kite | ABNKC06010 | None | None | G5 | S3 | FP |
| <i>Emys marmorata</i> western pond turtle | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| <i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop | PDSCR0R060 | None | Endangered | G2 | S2 | 1B.2 |
| <i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle | IICOL5V010 | None | None | G1G2 | S1S2 | |
| <i>Juncus leiospermus var. ahartii</i> Ahart's dwarf rush | PMJUN011L1 | None | None | G2T1 | S1.2 | 1B.2 |
| <i>Legenere limosa</i> legenere | PDCAM0C010 | None | None | G2 | S2.2 | 1B.1 |
| <i>Lepidurus packardi</i> vernal pool tadpole shrimp | ICBRA10010 | Endangered | None | G3 | S2S3 | |
| <i>Linderiella occidentalis</i> California linderiella | ICBRA06010 | None | None | G3 | S2S3 | |
| Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool | CTT44110CA | None | None | G3 | S3.1 | |



Selected Elements by Scientific Name
California Department of Fish and Game
California Natural Diversity Database



| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFG SSC or FP |
|-----------------------------------------------------------|--------------|----------------|--------------|-------------|------------|--------------------------------|
| <i>Orcuttia tenuis</i> slender Orcutt grass | PMPOA4G050 | Threatened | Endangered | G2 | S2 | 1B.1 |
| <i>Orcuttia viscida</i> Sacramento Orcutt grass | PMPOA4G070 | Endangered | Endangered | G1 | S1 | 1B.1 |
| <i>Riparia riparia</i> bank swallow | ABPAU08010 | None | Threatened | G5 | S2S3 | |
| <i>Sagittaria sanfordii</i> Sanford's arrowhead | PMALI040Q0 | None | None | G3 | S3 | 1B.2 |
| <i>Spea hammondii</i> western spadefoot | AAABF02020 | None | None | G3 | S3 | SSC |
| <i>Taxidea taxus</i> American badger | AMAJF04010 | None | None | G5 | S4 | SSC |

Record Count: 27

United States Department of the Interior



FISH AND WILDLIFE SERVICE



**Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825**

May 22, 2012

Document Number: 120522093132

Lindsay Tisch
Environmental Science Associates
2600 Capitol Avenue
Suite 200
Sacramento, CA 95816

Subject: Species List for Mather Field Specific Plan EIS

Dear: Ms. Tisch

We are sending this official species list in response to your May 22, 2012 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be August 20, 2012.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found [here](#).

Endangered Species Division

These buttons will not appear on your list.

Print species list before going on to letter.

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 120522093132

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

- Branchinecta conservatio
 - Conservancy fairy shrimp (E)
- Branchinecta lynchi
 - Critical habitat, vernal pool fairy shrimp (X)
 - vernal pool fairy shrimp (T)
- Desmocerus californicus dimorphus
 - Critical habitat, valley elderberry longhorn beetle (X)
 - valley elderberry longhorn beetle (T)
- Lepidurus packardii
 - Critical habitat, vernal pool tadpole shrimp (X)
 - vernal pool tadpole shrimp (E)

Fish

- Hypomesus transpacificus
 - delta smelt (T)
- Oncorhynchus mykiss
 - Central Valley steelhead (T) (NMFS)
 - Critical habitat, Central Valley steelhead (X) (NMFS)

- *Oncorhynchus tshawytscha*
 - Central Valley spring-run chinook salmon (T) (NMFS)
 - winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

- *Ambystoma californiense*
 - California tiger salamander, central population (T)
- *Rana draytonii*
 - California red-legged frog (T)

Reptiles

- *Thamnophis gigas*
 - giant garter snake (T)

Plants

- *Orcuttia tenuis*
 - Critical habitat, slender Orcutt grass (X)
 - slender Orcutt grass (T)
- *Orcuttia viscida*
 - Critical habitat, Sacramento Orcutt grass (X)
 - Sacramento Orcutt grass (E)

Quads Containing Listed, Proposed or Candidate Species:

BUFFALO CREEK (511C)

CARMICHAEL (512D)

County Lists

No county species lists requested.

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, or may be affected by projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.
- Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be August 20, 2012.

Appendix E

Transportation Analysis



Mather Specific Plan Transportation Analysis

Prepared for

ESA Associates

Sacramento County DERA

Prepared by

DKS Associates

TRANSPORTATION SOLUTIONS

8950 Cal Center Drive, Suite 340

Sacramento, CA 95826

December 2010

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Transportation

Introduction

DKS Associates evaluated the transportation impacts of the proposed Mather Specific Plan for ESA Community Development. This report summarizes the methodology, analyses, and conclusions of the assessment.

Project Description

Figure 1 shows the Mather Specific Plan EIS project boundary. The project boundary includes the existing Mather Airport and is located to the south and west of the City of Rancho Cordova and to the east and north of Sacramento County. The Plan area encompasses approximately 5,716 acres of land, of which over 2,000 acres are currently developed. The project proposes to develop approximately 1,869.7 acres, and set aside 1,273.5 acres of open space. As shown on **Figure 2**, the project includes the improvement of Eagles Nest Road between Douglas Road and Kiefer Boulevard.

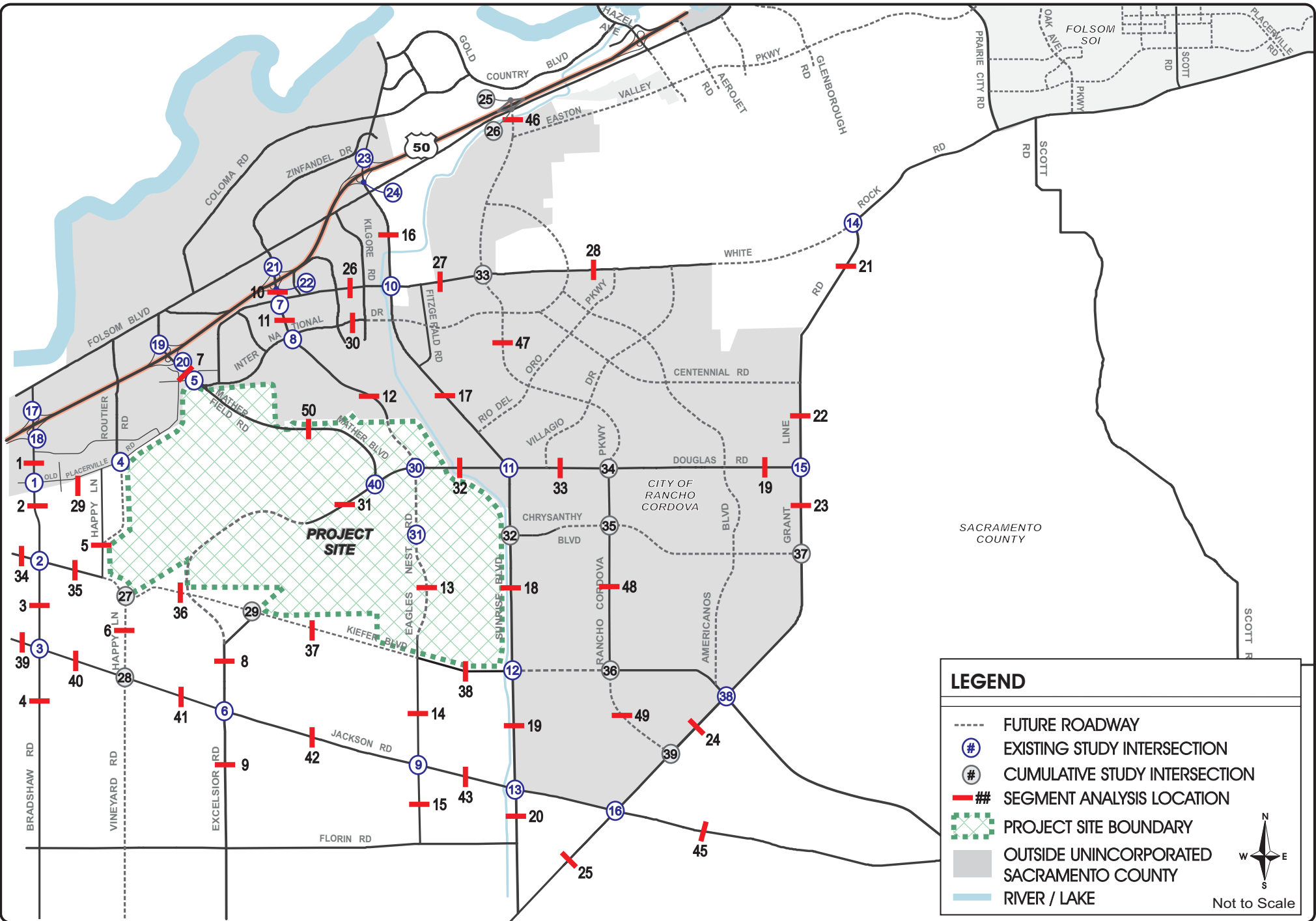
Analysis Scenarios

To identify project traffic impacts, the following scenarios were evaluated:

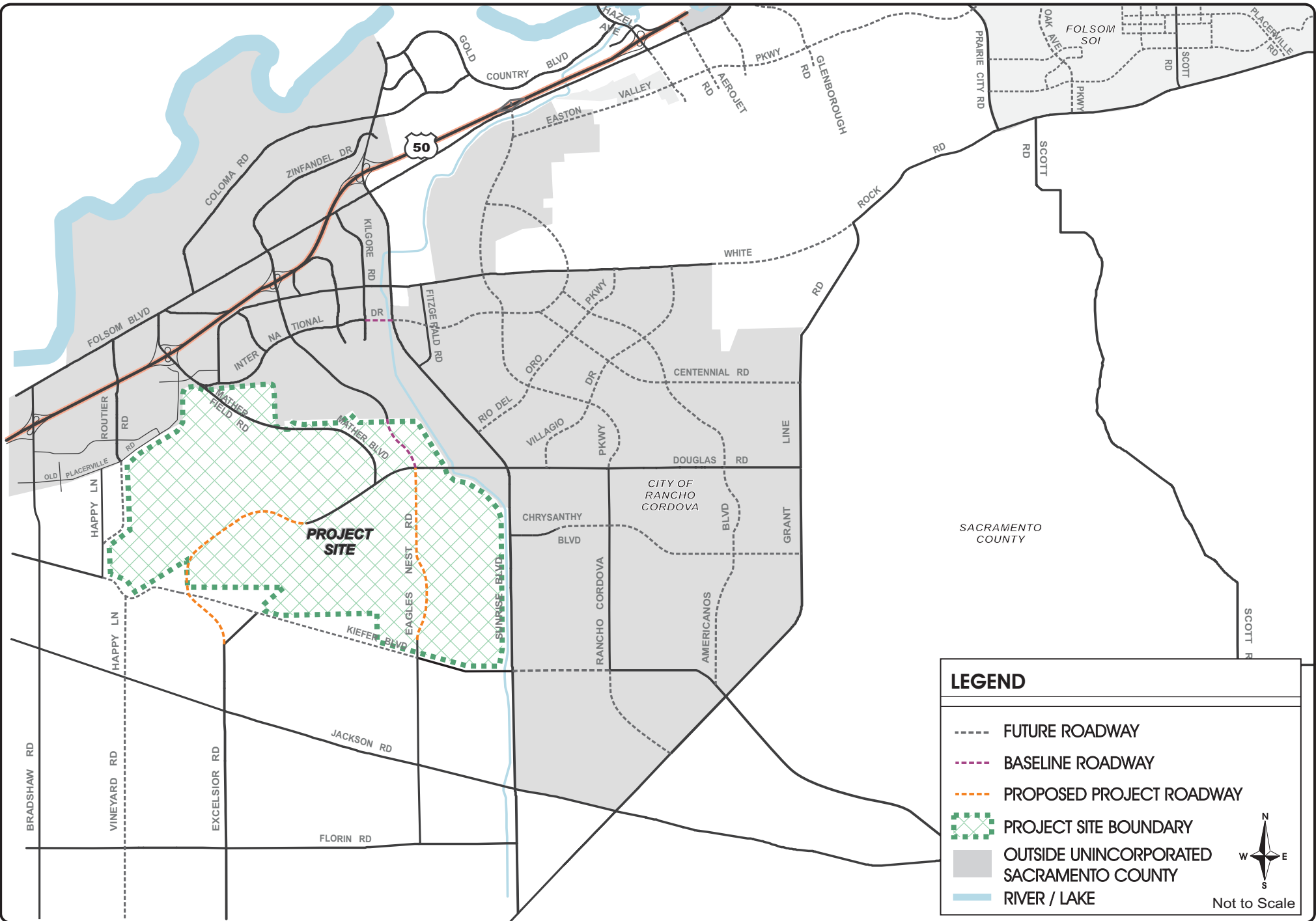
- Existing Conditions
- Baseline Conditions (No Permit Alternative)
- Baseline Plus the Preferred Alternative
- Baseline Plus Alternative I (modified use/density)
- Cumulative Conditions
- Cumulative Conditions Plus the Preferred Alternative
- Cumulative Conditions Plus Alternative I (modified use/density)

The Existing Conditions scenario reflects existing traffic counts and roadway geometry without any additional projects. The Baseline Conditions scenario reflects an extension of International Drive from Kilgore Road to Sunrise Boulevard currently under construction, as well as completion of the planned extension of Zinfandel Drive from Douglas Road to North Mather Drive.

PI201010081-000 Mather Specific Plan EIS Traffic Analysis/Graphs/Figure 1-Study Area.cdr



PI2010110081-000 Mather Specific Plan EIS Traffic Analysis (Graphics) Figure 2 - Baseline & Baseline Plus Project Roadways.cdr



Existing Transportation System

Information on the existing transportation system was assembled from field observations, surveys (including traffic counts), previous environmental impact reports, and available information from the County, Caltrans, the Sacramento Area Council of Governments (SACOG), and Regional Transit. The roadway system is illustrated on **Figure 1**.

Existing Roadways

U.S. Highway 50 (US 50) and **State Highway 16** (Jackson Road) provides regional access to the study area. U.S. 50 is an east-west freeway that extends from the Interstate 80 (I-80) junction in West Sacramento to Canal Street in the City of Placerville, where it continues as a highway across the Sierra Nevada to South Lake Tahoe and Nevada. West of Sunrise Boulevard it is an eight-lane freeway. Between Sunrise Boulevard and Folsom Boulevard, it has six mixed flow lanes and two High Occupancy Vehicle (HOV) lanes (carpool lanes). **State Highway 16** (Jackson Road) is an east-west facility that extends from Folsom Boulevard to the west into Amador County to the east. It is a two-lane highway with at-grade intersections which connects the City of Sacramento with the Sierra foothills.

Bradshaw Road is a two to six-lane north-south arterial roadway west of Mather Field that extends from north of Folsom Boulevard to Grant Line Road.

Routier Road is a north-south roadway northwest of Mather Field. It extends from Old Placerville Road to Folsom Boulevard.

Mather Field Road is a four to six-lane divided arterial providing access from Folsom Boulevard and U.S. 50 to Mather Field.

Excelsior Road is a rural two-lane north-south roadway that extends from the Sheldon Road near Grant Line Road through the Independence at Mather development to Douglas Road.

Zinfandel Drive extends from Sunrise Boulevard in Rancho Cordova north of U.S. 50 to the office park area north of Mather Field. As it crosses U.S. 50, Zinfandel Drive has three through lanes in the northbound direction and two through lanes in the southbound direction.

Eagles Nest Road is a rural north-south road that extends from Douglas Road on Mather Field to Grant Line Road. Eagles Nest Road is not maintained and is not open to public traffic adjacent to Mather Field.

Sunrise Boulevard is a north-south roadway designated as a thoroughfare within the County. It has six lanes between U.S. 50 and White Rock Road, four to six lanes between White Rock Road and Douglas Road, five lanes between Douglas Road and Kiefer Boulevard, and two lanes between Kiefer Boulevard and Grant Line Road.

Grant Line Road is a two-lane north-south rural roadway east of Mather Field. It extends from White Rock Road to Highway 99 south of Elk Grove.

White Rock Road is a two to six lane east-west roadway that provides access to the office parks/light industrial uses northeast of Mather Field. It begins at International Drive and continues easterly into El Dorado County.

Old Placerville Road is a two to four-lane east-west roadway that extends from just west of Bradshaw Road to Rockingham Drive just west of Mather Field Road.

International Drive is presently a four to six-lane divided roadway connecting Mather Field Road at Mather Field to Zinfandel Drive. International Drive extends to approximately one-quarter mile west of Sunrise Boulevard, where it terminates at Kilgore Road. An extension of International Drive from Sunrise Boulevard to Kilgore Road is currently under construction.

Douglas Road is a two-lane, east-west road which exits the east boundary of Mather Field, It continues as a two to five-lane roadway to the east across Sunrise Boulevard to Grant Line Road.

Kiefer Boulevard is an east-west roadway that extends from Folsom Boulevard to east of Sunrise Boulevard, generally forming the southern boundary of Mather Field. Kiefer Boulevard is not maintained and is not open to public traffic adjacent to Mather Field, between Happy Lane and Eagles Nest Road.

Transit System

No transit service is currently provided in the project area. All transit service is provided to the north of the project site by the Sacramento Regional Transit District (RT). The Sacramento Regional Transit District (RT) operates 97 bus routes and 37.4 miles of light rail covering a 418 square-mile service area. Buses and light rail run 365 days a year using 76 light rail vehicles, 256 buses powered by compressed natural gas (CNG) and 16 shuttle vans. Buses operate daily from 5 a.m. to 11:30 p.m. every 15 to 75 minutes, depending on the route. Light rail trains begin operation at 4:30 a.m. with service every 15 minutes during the day and every 30 minutes in the evening. The Blue Line trains run until 1 a.m. and the Gold Line to Folsom runs until 7 p.m.

Passenger amenities include 47 light rail stops or stations, 25 bus and light rail transfer centers and 18 free park-and-ride lots. RT also serves more than 3,600 bus stops throughout Sacramento County.

Light Rail Stations in Rancho Cordova along Regional Transit's Gold Line include Mather Field/Mills, Zinfandel, Cordova Town Center and Sunrise. These stations are served by bus routes 21, 28, 72, 74 and 75.

The Gold Line provides weekday, evening, Saturday, Sunday, and holiday light rail service between Historic Folsom and the Sacramento Valley Station.

Route 21 (Sunrise) provides weekday, evening, Saturday, Sunday, and holiday service. This route extends to the north from the Mather/Mills Light Rail Station along Coloma Road, Sunrise Boulevard and Twin Oaks Avenue.

Route 28 (Fair Oaks – Cordova Town Center) provides weekday service. This route connects to Light Rail Stations in Rancho Cordova with the Sunrise Mall Transit Center. To the north and east, this route operates along Folsom Boulevard, Sunrise Boulevard and Fair Oaks Boulevard.

Route 72 (Rosemont – Lincoln Village) provides weekday, evening, Saturday, Sunday, and holiday service. To the west, this route extends along Kiefer Boulevard to the Watt/Manlove Light Rail Station. To the north, this route extends along Bradshaw Road, Lincoln Village Drive, Rockingham Drive and Mather field Road to connect with the Mather/Mills Light Rail Station.

Route 74 (International) provides weekday service. This route connects with the Sunrise and Mather/Mills Light Rail Stations via roadways south of Folsom Boulevard including Mather Field Road and International Drive.

Route 75 (Mather Field) provides weekday, Saturday, Sunday, and holiday service. This route connects the Mather/Mill Light Rail Station to roadways south of Folsom Boulevard including Mather Field Road, Femoyer Street, Mather Boulevard, and Old Placerville Road.

Pedestrian and Bicycle Facilities

No pedestrian or bike facilities exist in the project area. The nearest pedestrian and bicycle facilities are located in the City of Rancho Cordova to the north.

Study Area

In conjunction with the Sacramento County Department of Transportation, the study area for this environmental document was defined. The study area is illustrated in Figure 1. It includes 40 intersections, 50 roadway segments, and portions of the US 50 freeway system from Bradshaw Road to the future Rancho Cordova Parkway.

Intersections

A total of 40 intersections were analyzed for the study. The key study intersections are as follows:

City or County Intersections

1. Bradshaw Road / Old Placerville Road
2. Bradshaw Road / Kiefer Boulevard

3. Bradshaw Road / Jackson Road
4. Routier Road / Old Placerville Road
5. Mather Field Road / Rockingham Drive
6. Excelsior Road / Jackson Road
7. Zinfandel Drive / White Rock Road
8. Zinfandel Drive / Data Drive
9. Eagles Nest Road / Jackson Road
10. Sunrise Boulevard / White Rock Road
11. Sunrise Boulevard / Douglas Road
12. Sunrise Boulevard / Kiefer Boulevard
13. Sunrise Boulevard / Jackson Road
14. Grant Line Road / White Rock Road
15. Grant Line Road / Douglas Road
16. Grant Line Road / Jackson Road

Ramp Intersections

17. Bradshaw Road / US 50 WB Ramps
18. Bradshaw Road / US 50 EB Ramps
19. Mather Field Road / US 50 WB Ramps
20. Mather Field Road / US 50 EB Ramps
21. Zinfandel Drive / US 50 WB Ramps
22. Zinfandel Drive / US 50 EB Ramps
23. Sunrise Boulevard / US 50 WB Ramps
24. Sunrise Boulevard / US 50 EB Ramps

25. Rancho Cordova Parkway / US 50 WB Ramps

26. Rancho Cordova Parkway / US 50 EB Ramps

New City/County Intersections

27. Routier Road / Kiefer Boulevard

28. Routier Road / Jackson Highway

29. Excelsior Road / Kiefer Boulevard

30. Zinfandel Drive / Douglas Road

31. Zinfandel Drive / Chrysanthy Boulevard

32. Sunrise Boulevard / Chrysanthy Boulevard

33. Rancho Cordova Parkway / White Rock Road

34. Rancho Cordova Parkway / Douglas Road

35. Rancho Cordova Parkway / Chrysanthy Boulevard

36. Rancho Cordova Parkway / Kiefer Road

37. Grant Line Road / Chrysanthy Boulevard

38. Grant Line Road / Kiefer Boulevard

39. Rancho Cordova Parkway / Grant Line Road

40. Mather Boulevard / Douglas Road

Roadway segments

A total of 50 study area roadway segments were analyzed for the study. The key roadway segments intersections are as follows:

1. Bradshaw Road from US 50 to Old Placerville Road
2. Bradshaw Road from Old Placerville Road to Kiefer Boulevard
3. Bradshaw Road from Kiefer Boulevard to Jackson Road
4. Bradshaw Road from Jackson Road to Elder Creek Road

5. Routier Road from Old Placerville Road to Kiefer Boulevard
6. Routier Road from Kiefer Boulevard to Jackson Road
7. Mather Field Road from US 50 to Old Placerville Road
8. Excelsior Road from Kiefer Road to Jackson Road
9. Excelsior Road from Jackson Road to Elder Creek Road
10. Zinfandel Drive from US 50 to White Rock Road
11. Zinfandel Drive from White Rock Road to Old Placerville Road
12. Zinfandel Drive from Old Placerville Road to Douglas Road
13. Zinfandel Drive from Douglas Road to Kiefer Boulevard
14. Eagles Nest Road from Kiefer Boulevard to Jackson Road
15. Eagles Nest Road from Jackson Road to Florin Road
16. Sunrise Road from US 50 to White Rock Road
17. Sunrise Road from White Rock Road to Douglas Road
18. Sunrise Road from Douglas Road to Kiefer Boulevard
19. Sunrise Road from Kiefer Boulevard to Jackson Road
20. Sunrise Road from Jackson Road to Florin Road
21. Grant Line Road from White Rock Road to Douglas Road
22. Grant Line Road from Douglas Road to Chrysanthy Boulevard
23. Grant Line Road from Chrysanthy Boulevard to Kiefer Road
24. Grant Line Road from Kiefer Road to Jackson Road
25. Grant Line Road south of Jackson Road
26. White Rock Road from Zinfandel Drive to Sunrise Boulevard
27. White Rock Road from Sunrise Boulevard to Rancho Cordova Parkway

28. White Rock Road from Rancho Cordova Parkway to Grant Line Road
29. Old Placerville Road from Bradshaw Road to Routier Road
30. Old Placerville Road from Zinfandel Drive to Sunrise Boulevard
31. Douglas Road from Kiefer Road to Zinfandel Drive
32. Douglas Road from Zinfandel Drive to Sunrise Boulevard
33. Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway
34. Kiefer Road from Rosemont Drive to Bradshaw Road
35. Kiefer Road from Bradshaw Road to Routier Road
36. Kiefer Road from Routier Road to Excelsior Road
37. Kiefer Road from Excelsior Road to Eagles Nest Road
38. Kiefer Road from Eagles Nest Road to Sunrise Boulevard
39. Jackson Road west of Bradshaw
40. Jackson Road from Bradshaw Road to Routier Road
41. Jackson Road from Routier Road to Excelsior Road
42. Jackson Road from Excelsior Road to Eagles Nest Road
43. Jackson Road from Eagles Nest Road to Sunrise Boulevard
44. Jackson Road from Sunrise Boulevard to Grant Line Road
45. Jackson Road from Grant Line Road to the East
46. Rancho Cordova Parkway from US 50 to White Rock Road
47. Rancho Cordova Parkway from White Rock Road to Douglas Road
48. Rancho Cordova Parkway from Douglas Road to Kiefer Boulevard
49. Rancho Cordova Parkway from Kiefer Boulevard to Grant Line Road
50. Chrysanthy Boulevard from Eagles Nest Road to Sunrise Boulevard

Freeway segments

A total of ten mainline segments of U.S. 50 were analyzed for the study. The key highway segments are as follows:

U.S 50 (Eastbound)

1. Watt Avenue to Bradshaw Road
2. Bradshaw Road to Mather Field Road
3. Mather Field Road to Sunrise Boulevard
4. Sunrise Boulevard to Rancho Cordova Parkway
5. Rancho Cordova Parkway to Hazel Avenue

U.S 50 (Westbound)

6. Hazel Avenue to Rancho Cordova Parkway
7. Rancho Cordova Parkway to Sunrise Boulevard
8. Sunrise Boulevard to Mather Field Road
9. Mather Field Road to Bradshaw Road
10. Bradshaw Road to Watt Avenue

Freeway Ramps

Ramp operations were evaluated at a total of five interchanges on U.S. 50. The key highway interchanges are as follows:

1. Bradshaw Road
2. Mather Field Road
3. Zinfandel Drive
4. Sunrise Boulevard
5. Rancho Cordova Parkway

Regulatory Framework

State Plans, Policies, Regulations, and Laws

Caltrans policies are applicable to the project and alternatives under consideration and are summarized in Caltrans' Guide for the Preparation of Traffic Impact Studies (Caltrans 2002). These guidelines identify circumstances under which Caltrans believes that a traffic impact study would be required, information that Caltrans believes should be included in the study, analysis scenarios, and guidance on acceptable analysis methodologies.

The standards for Caltrans' facilities in the study area are detailed in the U.S. 50 Corridor System Management Plan (CSMP) and the SR 16 Route Concept Report. The 20-Year Concept LOS for U.S. 50 in the study area is LOS F, because improvements necessary to improve the LOS to E are not feasible due to environmental, right-of-way, financial, and other constraints. For SR 16, LOS E is considered the minimum acceptable operating condition.

Regional and Local Plans, Policies, Regulations, and Laws

Metropolitan Transportation Plan for 2035

The MTP 2035 (SACOG 2008) is a long-range planning document for identifying and programming roadway improvements throughout the Sacramento region. The MTP has a history of being able to fund and deliver identified Tier I projects through state and local funding.

Sacramento County General Plan

Goals and policies of the Sacramento County General Plan relating to traffic and transportation found applicable to the project are listed below:

- CI-2 Sacramento County shall conduct land use and transportation planning with a regional perspective.
- CI-10 Sacramento County shall promote and support the network of Transportation Corridors as designated on the Transportation Plan accompanying this Element.
- CI-14 Sacramento County shall utilize design and development standards which support travel by transit, walking, bicycling, and clean alternative fuel and low emission vehicles.
- CI-21 Incorporate preferential consideration for buses and private HOV's at strategic congestion points (such as bridges and on-ramps) directed at discouraging drive-alone commuting.
- CI-22 Sacramento County shall apply the following Level of Service (LOS) standards for planning roads in the unincorporated area:

Rural collectors: LOS D

Urban area roads: LOS E

and may proceed with additional capacity projects within the scope of the adopted Transportation Plan when the Board of Supervisors has determined that the implementation of all feasible measures which will reduce travel demand in the affected corridor will not provide the target level of service.

- CI-24 Sacramento County shall support a program to develop a regional network of High Occupancy Vehicle (HOV) lanes throughout the urban area that includes provisions to designate existing mixed flow lanes for HOV use.

Sacramento County has a Level of Service “E” policy within the Urban Service Boundary and has a Level of Service “D” policy outside the Urban Service Boundary.

City of Rancho Cordova General Plan

Goals and policies of the City of Rancho Cordova General Plan relating to traffic and transportation found applicable to the project are listed below:

- C.1.2 Seek to maintain operations on all roadways and intersections at Level of Service D or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City’s judgment, be infeasible and/or conflict with the achievement of other goals. Congestion in excess of Level of Service D may be accepted in these cases, provided that provisions are made to improve traffic flow and/or promote non-vehicular transportation as part of a development project or a City-initiated project.
- C.1.11 As part of major individual roadway enhancement project (e.g., intersection redesign, signalization of previously un-signalized intersection), enhance and upgrade pedestrian and bicycle facilities within one-quarter mile of the project.
- C.2.6 Provide on-street bike lanes along all connector roadways and on local and major roadways when necessary to provide for interconnected routes. On-street bike routes may be provided on local, connector, and major roadways as deemed necessary by the City.

Because the City of Rancho Cordova formally adopted the County’s traffic-impact study guidelines upon incorporation, plans and policies from the County Guidelines (County of Sacramento 2004) were used in this analysis, except where the Circulation Element/Plan of the City of Rancho Cordova General Plan (City of Rancho Cordova 2005a, 2005b) supersedes County thresholds and requirements. The City of Rancho Cordova has adopted a Level of Service “D” policy.

Existing Roadway Operating Conditions

Level Of Service Definitions

Determination of roadway operating conditions is based upon comparison of traffic volumes to roadway capacity. “Levels of service” describe roadway operating conditions. Level of service is a qualitative measure of the effect of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs. Levels of service are designated "A" through "F" from best to worst, which cover the entire range of traffic operations that might occur. Levels of Service (LOS) "A" through "E" generally represent traffic volumes at less than roadway capacity, while LOS "F" represents over capacity and/or forced conditions. **Table 1** presents the level of service definitions. Sacramento County utilizes a LOS “E” standard for urban areas (roadways west of Prairie City Road), and a LOS “D” standard for rural areas (study roadways east of Prairie City Road). The City of Rancho Cordova utilizes a LOS “D” standard for its roadways. Caltrans has a route concept LOS “F” for US 50 in Sacramento County. In this report, we use a LOS “E” standard for all Caltrans facilities to be conservative.

In this traffic assessment, capacity analyses were conducted for intersections and roadway segments in accordance with Sacramento County, City of Rancho Cordova and Caltrans practice. The following summarizes the analysis types:

- Intersection-based capacity analyses are conducted utilizing a.m. peak commuter hour and p.m. peak hour traffic volumes. These analyses evaluate the ability of intersections to accommodate traffic volumes during peak travel periods.
- Roadway segment-based capacity analyses are conducted utilizing daily traffic volumes for Sacramento County and the City of Rancho Cordova. These analyses evaluate the adequacy of the number of roadway lanes between major intersections.
- Freeway segment-based capacity analyses are conducted utilizing a.m. and p.m. peak hour volumes for Caltrans facilities. These analyses evaluate the adequacy of the number of freeway lanes between interchanges.
- Freeway merge, diverge, and weave analyses are conducted utilizing a.m. and p.m. peak hour volumes for Caltrans facilities. These analyses evaluate the adequacy of the freeway system to accommodate entering and exiting traffic volumes.

Intersection Analysis

For intersection-based capacity analyses, different analysis methodologies are utilized depending upon whether an intersection is controlled by a traffic signal, two-way stop sign control, or all-way stop sign control.

Table 2 presents the level of service definitions for unsignalized intersections, both two-way and all-way stop control. Level of service is based upon average control delay calculated based upon Highway Capacity Manual, 2000 methods. For two-way stop locations, delay is calculated for each lane group, and the worst delay / level of service is reported. For all-way stop locations, average delay for all movements is reported.

TABLE 1

LEVEL OF SERVICE DEFINITIONS

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Level of Service A describes primarily free-flow operations at average travel speeds, usually 90 percent of the free-flow speed for the given street class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.</p> <p>Level of Service B describes reasonably free-flow operations at average travel speeds, usually 70 percent of the free-flow speed for the given street class. The ability to maneuver within the traffic stream is only slightly restricted and control delay at signalized intersections are not significant.</p> <p>Level of Service C describes stable operations: however, ability to maneuver and change lanes in midblock locations may be more restricted than at LOS B and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the free-flow speed for the street class.</p> | <p>Level of Service D borders on a range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40 percent of the free-flow speed</p> <p>Level of Service E is characterized by significant delays and average travel speeds of 33 percent or less of the free-flow speed. Such operations are caused by a combination of adverse progression, high signal delay, high volumes, extensive delays at critical intersections and inappropriate signal timing.</p> <p>Level of Service F is characterized by urban street flow at extremely low speeds, typically one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays, high volumes and extensive queuing.</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Source: *Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.*

TABLE 2

**LEVEL OF SERVICE CRITERIA
UNSIGNALIZED INTERSECTIONS**

| Level of Service | Total Delay Per Vehicle (seconds) |
|------------------|-----------------------------------|
| A | < 10 |
| B | > 10 and < 15 |
| C | > 15 and < 25 |
| D | > 25 and < 35 |
| E | > 35 and < 50 |
| F | > 50 |

Source: *Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.*

For signalized intersections, different methodologies are utilized dependent upon jurisdiction. Sacramento County and the City of Rancho Cordova utilize an updated version of the Circular 212 (Interim Materials on Highway Capacity) methodology. The level of service definitions based upon the Circular 212 methodology are shown in **Table 3**. For Caltrans intersections, the Highway Capacity Manual, 2000 methodology is utilized. The level of service definitions based upon this methodology are shown in **Table 4**. For signalized intersections, level of service reflects average intersection conditions. Some movements may experience better or worse levels of service.

Roadway Segment Analysis

Level of service analyses were conducted for Sacramento County and the City of Rancho Cordova roadway segments in the study area based upon daily traffic volumes, number of traffic lanes between intersections, and roadway characteristics. These analyses were conducted utilizing the methodology employed in the analysis of the Sacramento County General Plan and the City of Rancho Cordova General Plan. In this methodology, the major roadway network is divided into “capacity class” categories for level of service determination, as shown in **Table 5**.

The capacity class categories are based upon the nature of traffic flow along the facility, including number of interruptions due to intersection control and “side-friction” due to driveways and local streets. For each capacity class shown in **Table 5**, relationships were developed between daily traffic volumes and roadway level of service. **Table 6** summarizes the maximum daily traffic volumes for each capacity class/level of service combination. The segment-based level of service represents peak hour conditions, although it is calculated based upon daily traffic volumes and capacity estimates.

Freeway Segment Analysis

Level of service analyses were conducted for freeway segments in the study area based upon methodologies defined in the Highway Capacity Manual 2000 in accordance with Caltrans requirements. Level of service thresholds for freeway segments are calculated based on the associated traffic density of the freeway segment (i.e., the number of vehicles per lane per mile). The level of service is determined by the traffic density of the freeway segment, as shown in **Table 7**.

**TABLE 3
LEVEL OF SERVICE CRITERIA
SIGNALIZED INTERSECTIONS - CIRCULAR 212 METHOD**

| Sum of Critical Lane Volumes by Signal Phasing (vehicles / critical lane / hour) | | | |
|---------------------------------------------------------------------------------------------|----------------|----------------|------------------------|
| Level of Service | 2-Phase | 3-Phase | 4 or more Phase |
| A | 0-990 | 0-930 | 0-900 |
| B | 991-1155 | 931-1085 | 901-1050 |
| C | 1156-1320 | 1086-1240 | 1051-1200 |
| D | 1321-1485 | 1241-1395 | 1201-1350 |
| E | 1486-1650 | 1396-1550 | 1351-1500 |
| F | >1650 | >1550 | >1500 |

Sources: Traffic Impact Guidelines, County of Sacramento, July 2004.

**TABLE 4
LEVEL OF SERVICE CRITERIA
SIGNALIZED INTERSECTIONS - HIGHWAY CAPACITY MANUAL METHOD**

| Level of Service | Total Delay Per Vehicle (seconds) |
|-------------------------|------------------------------------------|
| A | ≤ 10 |
| B | > 10 and ≤ 20 |
| C | > 20 and ≤ 35 |
| D | > 35 and ≤ 55 |
| E | > 55 and ≤ 80 |
| F | > 80 |

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

**TABLE 5
ROADWAY CAPACITY CLASSES**

| Capacity Class | Stops per Mile | General Criteria | | |
|------------------------------------|----------------|------------------|---------|-------|
| | | Driveways Speed | Range | Lanes |
| Urban Roadways | | | | |
| Arterial - High Access Control | 1 - 2 | None | 45 - 55 | 4 + |
| Arterial - Moderate Access Control | 2 - 4 | Limited | 35 - 45 | 2 + |
| Arterial - Low Access Control | 4 + | High | 25 - 35 | 2 + |
| Rural Roadways | | | | |
| Two-lane Highway | < 0.5 | Limited | 45 - 55 | 2 |
| Two-lane road, paved shoulders | 0.5 - 2 | Limited | 45 - 55 | 2 |
| Two-lane road, no shoulders | 0.5 - 2 | Limited | 45 - 55 | 2 |

Source: Sacramento County General Plan Update, Draft Environmental Impact Report, 2009.

**TABLE 6
ROADWAY SEGMENT EVALUATION CRITERIA FOR LEVEL OF SERVICE SACRAMENTO COUNTY
AND THE CITY OF RANCHO CORDOVA**

| Capacity Class | Maximum Daily Traffic Volume Per Lane | | | | |
|------------------------------------|---------------------------------------|-------|-------|-------|--------|
| | Level of Service | | | | |
| | A | B | C | D | E |
| Urban Roadways | | | | | |
| Arterial - High Access Control | 6,000 | 7,000 | 8,000 | 9,000 | 10,000 |
| Arterial - Moderate Access Control | 5,400 | 6,300 | 7,200 | 8,100 | 9,000 |
| Arterial - Low Access Control | 4,500 | 5,250 | 6,000 | 6,750 | 7,500 |
| Rural Roadways | | | | | |
| Two-lane Highway | 1,200 | 2,400 | 3,950 | 6,750 | 11,450 |
| Two-lane road, paved shoulders | 1,100 | 2,150 | 3,550 | 6,100 | 10,000 |
| Two-lane road, no shoulders | 900 | 1,800 | 2,950 | 5,050 | 8,500 |

Source: Sacramento County General Plan Update, Draft Environmental Impact Report, 2009.

TABLE 7
FREEWAY MAINLINE SEGMENT LEVEL OF SERVICE CRITERIA

| Level of Service | Density Range | Description |
|-------------------------|----------------------|------------------------------------------------------------------------------------|
| A | <11 | Excellent. |
| B | 11-18 | Very Good. |
| C | 18-26 | Good. |
| D | 26-35 | Fair. |
| E | 35-45 | Poor. Maximum density at which sustained flows at capacity are expected to occur. |
| F | 45+ | Failure. Breakdown and congestion occurs when queues begin to form on the freeway. |

Density expressed as passenger cars per mile per lane.
Source: Highway Capacity Manual, Transportation Research Board, 2000

Freeway Ramp Merge, Diverge, and Weave Analysis

Freeway ramp junctions (merge / diverge) and weaving area analysis analyses were conducted at area interchanges using the 2000 Highway Capacity Manual methodology. This methodology correlates the LOS to the expected density of vehicles in passenger cars per mile per lane. **Table 8** summarizes the relationship between density and LOS for freeway ramp junctions and weaving areas.

Signal Warrants

At each unsignalized intersection the potential need for a traffic signal was evaluated. Traffic signal warrants are a series of standards that provide guidelines for determining if a traffic signal is appropriate. If one or more of the signal warrants are met, signalization of the intersection may be appropriate. However, a signal likely should not be installed if none or few of the warrants are met since the installation of signals may increase delays on the previously uncontrolled major street and may contribute to an increase in accidents.

The California Manual on Uniform Traffic Control Devices (CMUTCD) presents various warrant analyses to assist in evaluating the need for traffic signals at an intersection. The peak hour delay and / or the peak hour volume warrant were utilized to evaluate the possibility that traffic signals may be warranted at study intersections in this report.

Existing Volumes and Lanes

Existing a.m. and p.m. peak hour traffic volumes and lane geometry at the study area intersections are illustrated in Figure 3.

TABLE 8
FREEWAY RAMP MERGE/DIVERGE & WEAVING AREA LEVEL OF SERVICE CRITERIA

| Level of Service | Merge/Diverge Density (pc/mi/ln) ¹ W | Weaving Area Density (pc/mi/ln) ¹ |
|------------------|-------------------------------------------------|----------------------------------------------|
| A | < 10.0 | < 10.0 |
| B | > 10.0 – 20.0 | > 10.0 – 20.0 |
| C | > 20.0 – 28.0 | > 20.0 – 28.0 |
| D | > 28.0 – 35.0 | > 28.0 – 35.0 |
| E | > 35.0 | > 35.0 – 43.0 |

1. pc/mi/ln = passenger cars per mile per lane

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Existing count data was obtained between 2006 and 2010. Intersection peak hour turning movement counts were collected by the Traffic Operations Analysis Report - White Rock Road Improvement Project (2006), Traffic Operations Analysis Report - US 50 Auxiliary Lane Project (2006), Folsom South of US 50 Annexation Environmental Impact Report (2007), White Rock Road Widening Report (2008), Teichert Quarry Traffic Study (2006 and 2007), the Walltown Quarry Project (2009) and Mather Construction Traffic Update (2010). Peak hour freeway directional volumes were from the Traffic Operations Analysis Report - US 50 Auxiliary Lane Project (2006). Daily Roadway Segment Volumes were collected by Sacramento County Department of Transportation (2005-2007), Caltrans (2007), White Rock Road Widening Report (2008), and Teichert Quarry Traffic Study (2006 and 2007). A review of daily freeway mainline volumes on US 50 at the Zinfandel Drive interchange shows traffic volumes are generally lower in 2010 compared with 2006 thru 2008 volumes. Because older counts collected between 2006 and 2008 are generally higher, they provide a more conservative analysis.

Existing Operating Conditions

Sacramento County Intersections

Table 9 summarizes a.m. and p.m. peak hour operating conditions and the peak-hour traffic signal warrants analyses at the study area intersections. During the a.m. and p.m. peak hours, all of the Sacramento County intersections meet the Level of Service (LOS) "E" standard within the Urban Service Boundary and the Level of Service (LOS) "D" standard outside the boundary with the exception of the following intersection:

- Grant Line Road and White Rock Road - LOS "F"

City of Rancho Cordova Intersections

Table 9 summarizes a.m. and p.m. peak hour operating conditions at the study area intersections. During the a.m. and p.m. peak hours, all of the City of Rancho Cordova intersections meet the Level of Service (LOS) "D" standard with the exception of the following intersections:

- Sunrise Boulevard and Folsom Boulevard – LOS "E"
- Sunrise Boulevard and Jackson Road (SR-16) - LOS "F"

Caltrans State Highway Intersections

Table 9 summarizes a.m. and p.m. peak hour operating conditions at the study area intersections. During the a.m. and p.m. peak hours, all of the Caltrans State Highway intersections meet the Level of Service (LOS) "E" standard.

Sacramento County Roadway Segments

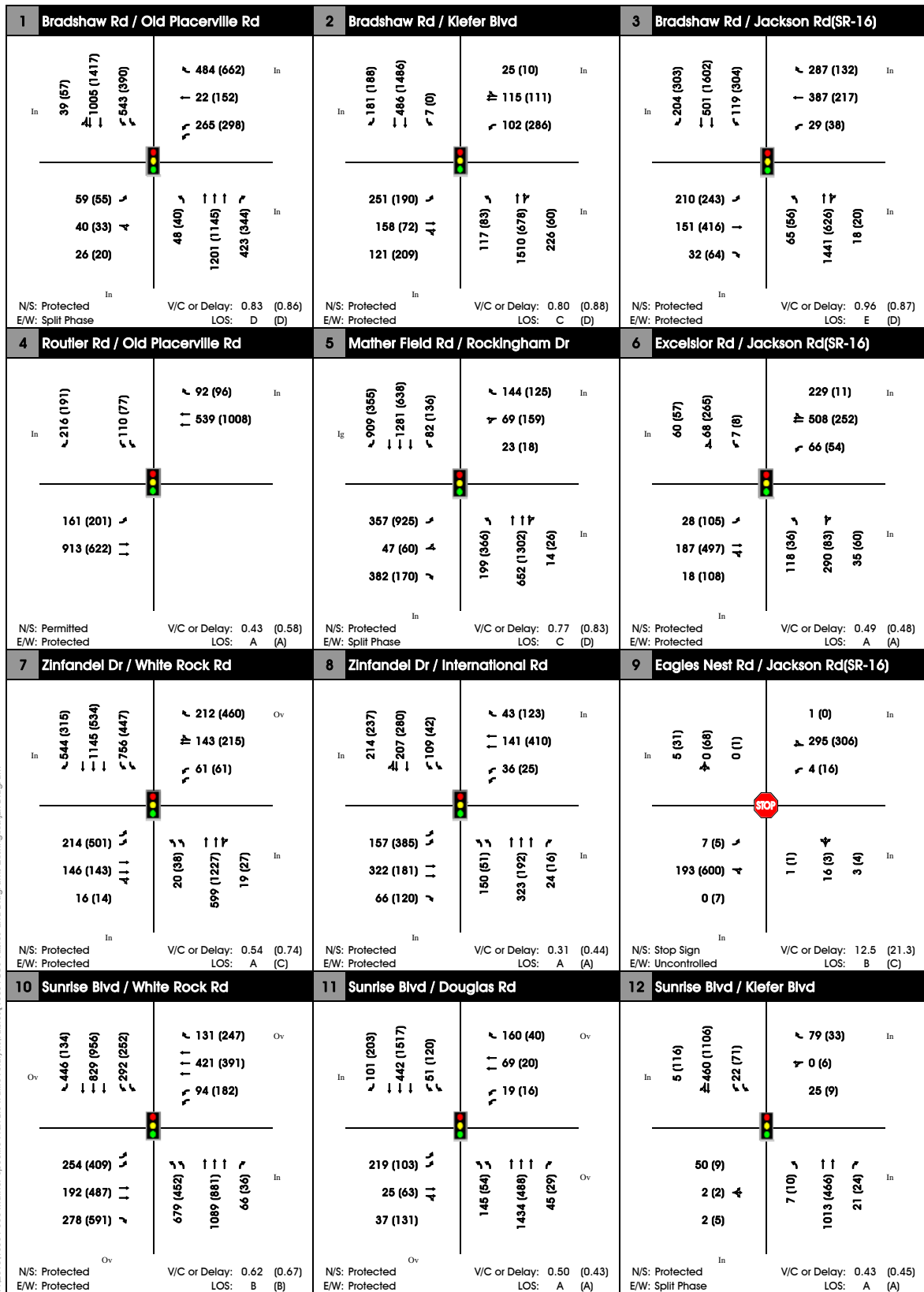
Table 10 summarizes roadway operating conditions. All of the Sacramento County roadway segments meet the Level of Service (LOS) "E" standard within the Urban Service Boundary and the Level of Service (LOS) "D" standard outside the boundary, with the following exception:

- Bradshaw Rd - Old Placerville Rd to Kiefer Blvd – LOS "F"

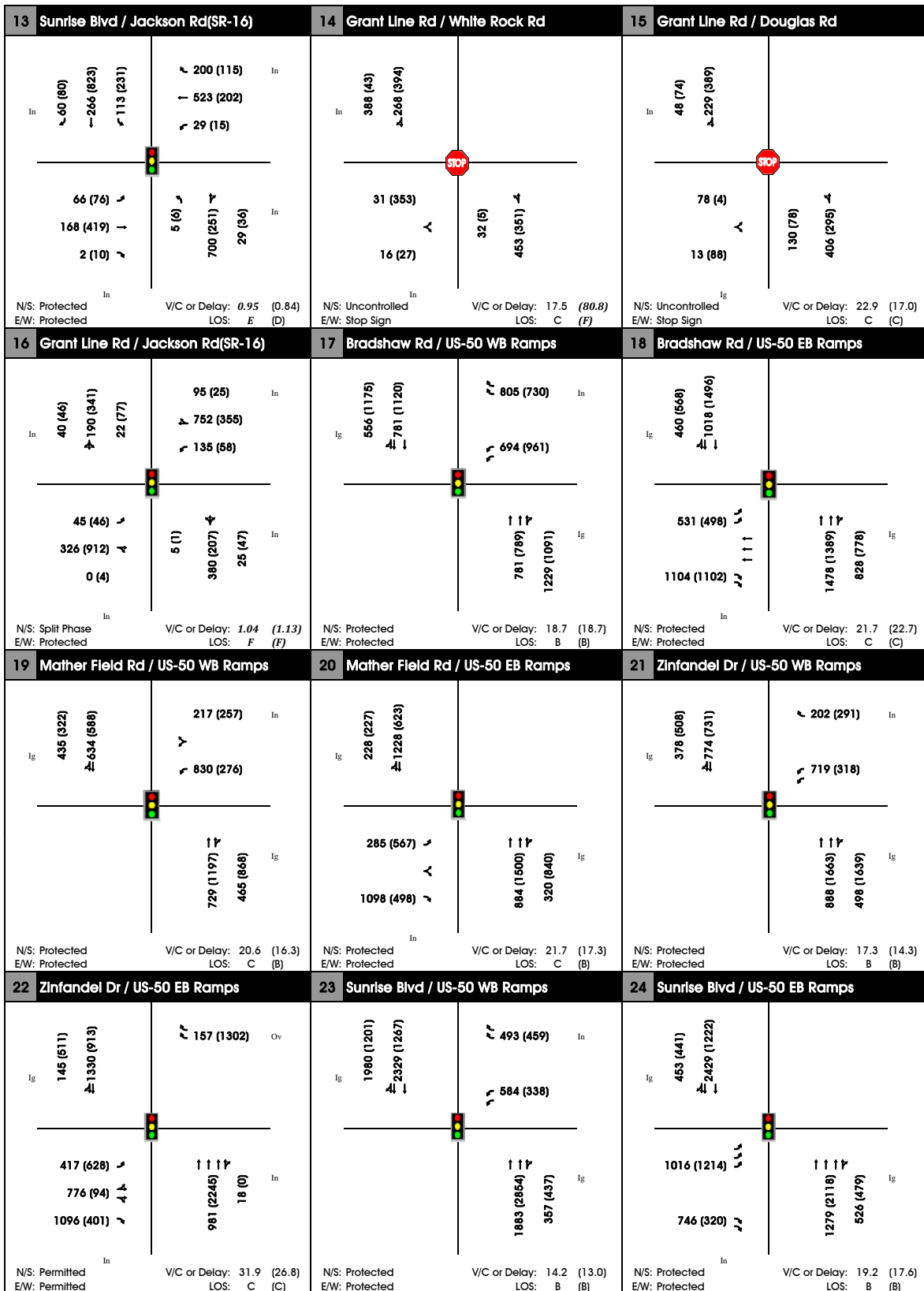
City of Rancho Cordova Roadway Segments

Table 10 summarizes roadway operating conditions. All of the City of Rancho Cordova roadway segments meet the Level of Service (LOS) "D" standard with the following exceptions:

- Bradshaw Rd - US-50 to Old Placerville Rd – LOS "F"
- Old Placerville Rd - Bradshaw Rd to Routier Rd – LOS "F"
- Sunrise Blvd - Folsom Blvd to White Rock Rd – LOS "E"
- Sunrise Blvd - Kiefer Blvd to Jackson Rd (SR-16) – LOS "E"



Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.

**TABLE 9
EXISTING AM/PM PEAK HOUR INTERSECTION OPERATING CONDITIONS-SACRAMENTO COUNTY, CITY OF RANCHO CORDOVA**

| Intersection | | Level of Service (LOS) Methodology | | Existing No Project Conditions | | | | | |
|-------------------------------|--------------------|------------------------------------|-----------------|--------------------------------|------------------|-----|-----------------|------------------|----------|
| | | | | AM Peak Hour | | | PM Peak Hour | | |
| North-South Street | East-West Street | Analysis Methodology | Policy Standard | Meets Signal Warrant | V/C or Delay [1] | LOS | Signal Warrant | V/C or Delay [1] | LOS |
| Sacramento County | | | | | | | | | |
| Bradshaw Rd | Kiefer Blvd | Circular 212 Planning | E | -- | 0.80 | C | -- | 0.88 | D |
| Bradshaw Rd | Jackson Rd(SR-16) | Circular 212 Planning | E | -- | 0.96 | E | -- | 0.87 | D |
| Excelsior Rd | Jackson Rd(SR-16) | Circular 212 Planning | E | -- | 0.49 | A | -- | 0.48 | A |
| Eagles Nest Rd | Jackson Rd(SR-16) | 2000 HCM Unsignalized | E | No | 12.5 | B | No | 21.3 | C |
| Grant Line Rd | White Rock Rd | 2000 HCM Unsignalized | E | No | 17.5 | C | Yes 80.8 | | F |
| City of Rancho Cordova | | | | | | | | | |
| Bradshaw Rd | Old Placerville Rd | Circular 212 Planning | D | -- | 0.84 | D | -- | 0.9 | D |
| Routier Rd | Old Placerville Rd | Circular 212 Planning | D | -- | 0.44 | A | -- | 0.6 | A |
| Mather Field Rd | Rockingham Dr | Circular 212 Planning | D | -- | 0.82 | D | -- | 0.9 | D |
| Zinfandel Dr | White Rock Rd | Circular 212 Planning | D | -- | 0.52 | A | -- | 0.7 | B |
| Zinfandel Dr | International Rd | Circular 212 Planning | D | -- | 0.44 | A | -- | 0.6 | A |
| Sunrise Blvd | White Rock Rd | Circular 212 Planning | D | -- | 0.45 | A | -- | 0.5 | A |
| Sunrise Blvd | Douglas Rd | Circular 212 Planning | D | -- | 0.41 | A | -- | 0.5 | A |
| Sunrise Blvd | Kiefer Blvd | Circular 212 Planning | D | -- | 0.44 | A | -- | 0.5 | A |
| Sunrise Blvd | Jackson Rd(SR-16) | Circular 212 Planning | D | -- | 0.96 | E | -- | 0.9 | D |
| Grant Line Rd | Douglas Rd | 2000 HCM Unsignalized | D | No | 22 | C | No | 16.5 | C |
| Grant Line Rd | Jackson Rd(SR-16) | Circular 212 Planning | D | -- | 1.03 | F | -- | 1.1 | F |
| Excelsior Rd | Kiefer Blvd | 2000 HCM 4-Way Stop | D | -- | -- | -- | -- | -- | -- |
| Zinfandel Dr | Douglas Rd | 2000 HCM 4-Way Stop | D | -- | -- | -- | -- | -- | -- |
| Zinfandel Dr | Chrysanthy Blvd | 2000 HCM 4-Way Stop | D | -- | -- | -- | -- | -- | -- |
| Mather Blvd | Douglas Rd | 2000 HCM 4-Way Stop | D | -- | -- | -- | -- | -- | -- |
| Caltrans State Highway | | | | | | | | | |
| Bradshaw Rd | US-50 WB Ramps | 2000 HCM Operations | E | -- | 18.70 | B | -- | 18.7 | B |
| Bradshaw Rd | US-50 EB Ramps | 2000 HCM Operations | E | -- | 21.70 | C | -- | 22.7 | C |
| Mather Field Rd | US-50 WB Ramps | 2000 HCM Operations | E | -- | 20.60 | C | -- | 16.3 | B |
| Mather Field Rd | US-50 EB Ramps | 2000 HCM Operations | E | -- | 21.70 | C | -- | 17.3 | B |
| Zinfandel Dr | US-50 WB Ramps | 2000 HCM Operations | E | -- | 17.30 | B | -- | 14.3 | B |
| Zinfandel Dr | US-50 EB Ramps | 2000 HCM Operations | E | -- | 31.90 | C | -- | 26.8 | C |
| Sunrise Blvd | US-50 WB Ramps | 2000 HCM Operations | E | -- | 14.20 | B | -- | 13.0 | B |
| Sunrise Blvd | US-50 EB Ramps | 2000 HCM Operations | E | -- | 19.20 | B | -- | 17.6 | B |

[1] V/C = Volume-to Capacity ratio, Delay; At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay.

At unsignalized, 2-Way Stop intersections (Based on the 2000 HCM Unsignalized methodology). The reported delay is for the worst approach

At signalized intersections (based on the 2000 HCM Operations). The reported delay is the intersection delay. Bold indicates deficiency. Shaded areas indicate impact.

Source: DKS Associates, 2010

TABLE 10
EXISTING LEVEL OF SERVICE SACRAMENTO CO & CITY OF RANCHO CORDOVA ROADWAY SEGMENTS

| Roadway Segment | LOS Policy | Lanes | Facility Type | Capacity | Existing No Project | | |
|----------------------------------------------------------|------------|-------|---------------|----------|---------------------|---------------|-----|
| | | | | | Volume | V/C | LOS |
| Bradshaw Rd - US-50 to Old Placerville Rd | D | 6 | Arterial - M | 54,000 | 59,400 | 1.10 F | |
| Bradshaw Rd - Old Placerville Rd to Kiefer Blvd | E | 4 | Arterial - M | 36,000 | 41,700 | 1.16 F | |
| Bradshaw Rd - Kiefer Blvd to Jackson Rd (SR-16) | E | 4 | Arterial - M | 36,000 | 28,000 | 0.78 | C |
| Bradshaw Rd - Jackson Rd (SR-16) to Elder Creek Rd | E | 4 | Arterial - M | 36,000 | 23,200 | 0.64 | B |
| Happy Ln - Old Placerville Rd to Kiefer Blvd | E | 2 | Arterial - M | 18,000 | 3,700 | 0.21 | A |
| Mather Field Rd - US-50 to Old Placerville Rd | D | 6 | Arterial - M | 54,000 | 37,500 | 0.69 | B |
| Excelsior Rd - North of Jackson Rd to Jackson Rd (SR-16) | E | 2 | Arterial - M | 18,000 | 4,600 | 0.26 | A |
| Excelsior Rd - Jackson Rd (SR-16) to Elder Creek Rd | E | 2 | Arterial - M | 18,000 | 4,600 | 0.26 | A |
| Zinfandel Dr - US-50 to White Rock Rd | D | 6 | Arterial - M | 54,000 | 47,000 | 0.87 | D |
| Zinfandel Dr - White Rock Rd to International Dr | D | 6 | Arterial - M | 54,000 | 19,700 | 0.36 | A |
| Zinfandel Dr - South of International to Douglas Rd | D | 2 | Arterial - M | 18,000 | | | |
| Eagles Nest Rd - Douglas Rd to Kiefer Blvd | E | 2 | Arterial - M | 18,000 | | | |
| Eagles Nest Rd - Kiefer Blvd to Jackson Rd (SR-16) | E | 2 | Arterial - M | 18,000 | | | |
| Eagles Nest Rd - Jackson Rd (SR-16) to Florin Rd | E | 2 | Arterial - M | 18,000 | | | |
| Sunrise Blvd - Folsom Blvd to White Rock Rd | D | 6 | Arterial - M | 54,000 | 49,500 | 0.92 E | |
| Sunrise Blvd - White Rock Rd to Douglas Rd | D | 6 | Arterial - M | 54,000 | 28,200 | 0.52 | A |
| Sunrise Blvd - Douglas Rd to Kiefer Blvd | D | 5 | Arterial - M | 45,000 | 24,500 | 0.54 | A |
| Sunrise Blvd - Kiefer Blvd to Jackson Rd (SR-16) | D | 2 | Arterial - M | 18,000 | 17,500 | 0.97 E | |
| Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd | E | 2 | Rural S | 20,000 | 11,100 | 0.56 | D |
| Grant Line Rd - White Rock Rd to Douglas Rd | D | 2 | Rural NS | 17,000 | 9,600 | 0.56 | D |
| Grant Line Rd - Douglas Rd to Chrysanthy Blvd | D | 2 | Rural S | 20,000 | 6,500 | 0.33 | C |
| Grant Line Rd - Chrysanthy Blvd to Kiefer Blvd | D | 2 | Rural S | 20,000 | 6,500 | 0.33 | C |
| Grant Line Rd - Kiefer Blvd to Jackson Rd (SR-16) | D | 2 | Rural S | 20,000 | 7,800 | 0.39 | D |
| Grant Line Rd - Jackson Rd (SR-16) to Sunrise Blvd | E | 2 | Rural S | 20,000 | 7,900 | 0.40 | D |
| White Rock Rd - Zinfandel Dr to Sunrise Blvd | D | 6 | Arterial - M | 54,000 | 27,000 | 0.50 | A |
| White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy | D | 4 | Arterial - M | 36,000 | 9,800 | 0.27 | A |
| White Rock Rd - Rancho Cordova Pkwy to Grant Line Rd | D | 2 | Rural NS | 17,000 | 3,400 | 0.20 | B |
| Old Placerville Rd - Bradshaw Rd to Routier Rd | D | 2 | Arterial - M | 18,000 | 18,400 | 1.02 F | |
| International Drive - Zinfandel Dr to Kilgore Rd | D | 6 | Arterial - M | 54,000 | 19,300 | 0.36 | A |
| Douglas Rd Ext - Extension to Excelsior Rd | D | 2 | Arterial - M | 18,000 | | | |
| Douglas Rd - Eagles Nest Rd to Sunrise Blvd | D | 2 | Arterial - M | 18,000 | 6,300 | 0.35 | A |
| Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy | D | 6 | Arterial - M | 54,000 | 4,400 | 0.08 | A |
| Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd | E | 2 | Arterial - M | 18,000 | 12,800 | 0.71 | C |
| Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd | E | 2 | Rural Hwy | 22,900 | 10,800 | 0.47 | D |
| Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd | E | 2 | Rural Hwy | 22,900 | 9,200 | 0.40 | D |
| Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd | E | 2 | Rural Hwy | 22,900 | 9,200 | 0.40 | D |
| Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd | D | 2 | Rural Hwy | 22,900 | 13,000 | 0.57 | D |
| Jackson Rd (SR-16) - Grant Line Rd to Kiefer Blvd | E | 2 | Rural Hwy | 22,900 | 14,300 | 0.62 | E |
| Mather Blvd - Douglas Rd to Base | D | 2 | Arterial - M | 18,000 | 7,100 | 0.39 | A |

Notes: LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial - M = Arterial with moderate access control; Rural Hwy = Rural 2-lane highway, Rural S = Rural 2-lane road with 24'-36' of pavement and paved shoulders; Rural NS = rural 2-lane road with 24'-36' of pavement and no shoulders. **Bold indicates deficiency. Shaded areas indicate impact.** Source: DKS Associates 2010

Caltrans Freeway Mainline

Level of service analyses were also conducted for the study area freeway segments based upon a.m. peak hour traffic volumes, and number of both mixed flow and full auxiliary lanes. **Table 11** summarizes the freeway levels of service. All of the Caltrans freeway segments meet the LOS “E” standard.

Caltrans Freeway Merge, Diverge, and Weaving Areas

Level of service analyses were also conducted for the study area freeway merge, diverge, and weaving areas. **Table 12** summarizes the freeway levels of service. All of the Caltrans freeway merge, diverge, and weaving areas meet the LOS “E” standard.

Existing Transit Service

No transit service is currently provided in the project area. All transit service is provided to the north of the project site by the Sacramento Regional Transit District (RT).

Existing Bicycle and Pedestrian Facilities

There are currently no bicycle or pedestrian facilities in the study area.

**TABLE 11
EXISTING LEVEL OF SERVICE - CALTRANS FREEWAY MAINLINE SEGMENTS**

| Segment Lanes | Existing ¹ | | | |
|------------------------------------------|-----------------------|----------------------|-----|--------------|
| | Volumes | Density ² | LOS | ³ |
| AM Peak Hour | | | | |
| US-50 EB Watt Ave to Bradshaw Rd | 4 | 7,720 | 38 | E |
| US-50 EB Bradshaw Rd to Mather Field Rd | 4 | 7,200 | 34 | D |
| US-50 EB Mather Field Rd to Zinfandel Dr | 5 | 6,420 | 26 | D |
| US-50 EB Zinfandel Dr to Sunrise Blvd | 4 | 4,780 | 21 | C |
| US-50 EB Sunrise Blvd to Hazel Ave | 4 | 4,240 | 23 | C |
| US-50 WB Hazel Ave to Sunrise Blvd | 4 | 6,030 | 36 | E |
| US-50 WB Sunrise Blvd to Zinfandel Dr | 4 | 7,820 | 40 | E |
| US-50 WB Zinfandel Dr to Mather Field Rd | 5 | 7,420 | 28 | D |
| US-50 WB Mather Field Rd to Bradshaw Rd | 4 | 7,290 | 35 | D |
| US-50 WB Bradshaw Rd to Watt Ave | 4 | 7,870 | 40 | E |
| PM Peak Hour | | | | |
| US-50 EB Watt Ave to Bradshaw Rd | 4 | 7,630 | 38 | E |
| US-50 EB Bradshaw Rd to Mather Field Rd | 4 | 6,920 | 32 | D |
| US-50 EB Mather Field Rd to Zinfandel Dr | 5 | 7,190 | 27 | D |
| US-50 EB Zinfandel Dr to Sunrise Blvd | 4 | 7,060 | 33 | D |
| US-50 EB Sunrise Blvd to Hazel Ave | 4 | 6,180 | 37 | E |
| US-50 WB Hazel Ave to Sunrise Blvd | 4 | 5,040 | 28 | D |
| US-50 WB Sunrise Blvd to Zinfandel Dr | 4 | 4,860 | 21 | C |
| US-50 WB Zinfandel Dr to Mather Field Rd | 5 | 6,370 | 25 | C |
| US-50 WB Mather Field Rd to Bradshaw Rd | 4 | 6,770 | 31 | D |
| US-50 WB Bradshaw Rd to Watt Ave | 4 | 7,590 | 37 | E |

¹ Based on Freeway Performance Measurement System data from April and May 2008

² Density given as passenger cars per mile per lane

³ LOS = Level of Service

DKS Associates 2010

TABLE 12
EXISTING LEVEL OF SERVICE - CALTRANS FREEWAY MERGE/DIVERGE WEAVING AREAS

| Segment | Ramp Type | Peak Hour Ramp Volumes | | Peak Hour Ramp Density/LOS | | | |
|----------------------------|-------------|------------------------|-------|----------------------------|-----|----------------------|-----|
| | | Existing Count | | Existing Count | | | |
| | | AM | PM | AM | PM | Density ¹ | LOS |
| | | AM | PM | Density ¹ | LOS | Density ² | LOS |
| US-50 Eastbound | | | | | | | |
| Bradshaw Road Off-Ramp | | 1,635 | 1,600 | 20.0 | B | 15.9 | B |
| Bradshaw Road On-Ramp | Loop | 460 | 568 | 20.3 | C | 17.5 | B |
| Bradshaw Road On-Ramp | Slip | 828 | 778 | 28.3 | D | 23.6 | C |
| Mather Field Road Off-Ramp | | 1,383 | 1,065 | 42.2 F | | 34.5 | D |
| Mather Field Road On-Ramp | Loop | 228 | 227 | 19.1 | B | 16.7 | B |
| Zinfandel Drive On-Ramp | Loop | 145 | 511 | 16.2 | B | 18.4 | B |
| Zinfandel Drive On-Ramp | Slip | 169 | 873 | 16.1 | B | 19.3 | B |
| Sunrise Boulevard On-Ramp | Loop & Slip | 979 | 920 | 23.2 | C | 32.2 | D |
| US-50 Westbound | | | | | | | |
| Zinfandel Drive Off-Ramp | | 921 | 609 | 30.7 | D | 30.0 | D |
| Zinfandel Drive On-Ramp | Slip | 169 | 873 | 13.3 | B | 17.5 | B |
| Mather Field Road On-Ramp | Loop & Slip | 900 | 1,190 | 29.5 | D | 28.7 | D |
| Bradshaw Road Off-Ramp | | 1,499 | 1,691 | 17.1 | B | 18.5 | B |
| Bradshaw Road On-Ramp | Loop | 1,229 | 1,091 | 19.6 | B | 19.1 | B |
| Bradshaw Road On-Ramp | Slip | 1,229 | 1,091 | 19.6 | B | 19.1 | B |

¹ Based on Freeway Performance Measurement System data from April and May 2008

² Density given as passenger cars per mile per lane

³ LOS = Level of Service,

Bold indicates deficiency. Shaded areas indicate impact.

Baseline Transportation System

Baseline Roadways

Short term Baseline traffic volumes were developed to reflect roadway extensions either currently under construction or expected to be completed prior to construction of the Preferred Alternative. The Baseline Conditions scenario reflects an extension of International Drive from Kilgore Road to Sunrise Boulevard currently under construction, as well as completion of the planned extension of Zinfandel Drive from Douglas Road to North Mather Drive. The Baseline Conditions roadways are shown in **Figure 2**.

Baseline Operating Conditions

Sacramento County Intersections

Table 13 summarizes a.m. and p.m. peak hour operating conditions and the peak-hour traffic signal warrants analyses at the study area intersections. During the a.m. and p.m. peak hours, all of the Sacramento County intersections meet the Level of Service (LOS) "E" standard within the Urban Service Boundary and the Level of Service (LOS) "D" standard outside the boundary with the exception of the following intersection:

- Grant Line Road and White Rock Road - LOS "F"

While the p.m. peak hour LOS remains "F" at the Grant Line Road and White Rock Road intersection under baseline operating conditions, the delay is reduced from 80.8 seconds under existing conditions to 56.8 seconds under baseline conditions. Baseline conditions include the extension of Zinfandel Drive to Douglas Road, which reduces the total approach volumes at the Grant Line Road and White Rock Road intersection from 1,173 under existing conditions to 1,117 under baseline conditions, during the p.m. peak hour.

City of Rancho Cordova Intersections

Table 13 summarizes a.m. and p.m. peak hour operating conditions at the study area intersections. During the a.m. and p.m. peak hours, all of the City of Rancho Cordova intersections meet the Level of Service (LOS) "D" standard with the exception of the following intersections:

- Sunrise Boulevard and Jackson Road (SR-16) - LOS "E"
- Grant Line Road and Jackson Road (SR-16) - LOS "F"

Caltrans State Highway Intersections

Table 13 summarizes a.m. and p.m. peak hour operating conditions at the study area intersections. During the a.m. and p.m. peak hours, all of the Caltrans State Highway intersections meet the Level of Service (LOS) "E" standard.

Sacramento County Roadway Segments

Table 14 summarizes roadway operating conditions. All of the Sacramento County roadway segments meet the Level of Service (LOS) "E" standard within the Urban Service Boundary and the Level of Service (LOS) "D" standard outside the boundary, with the following exception:

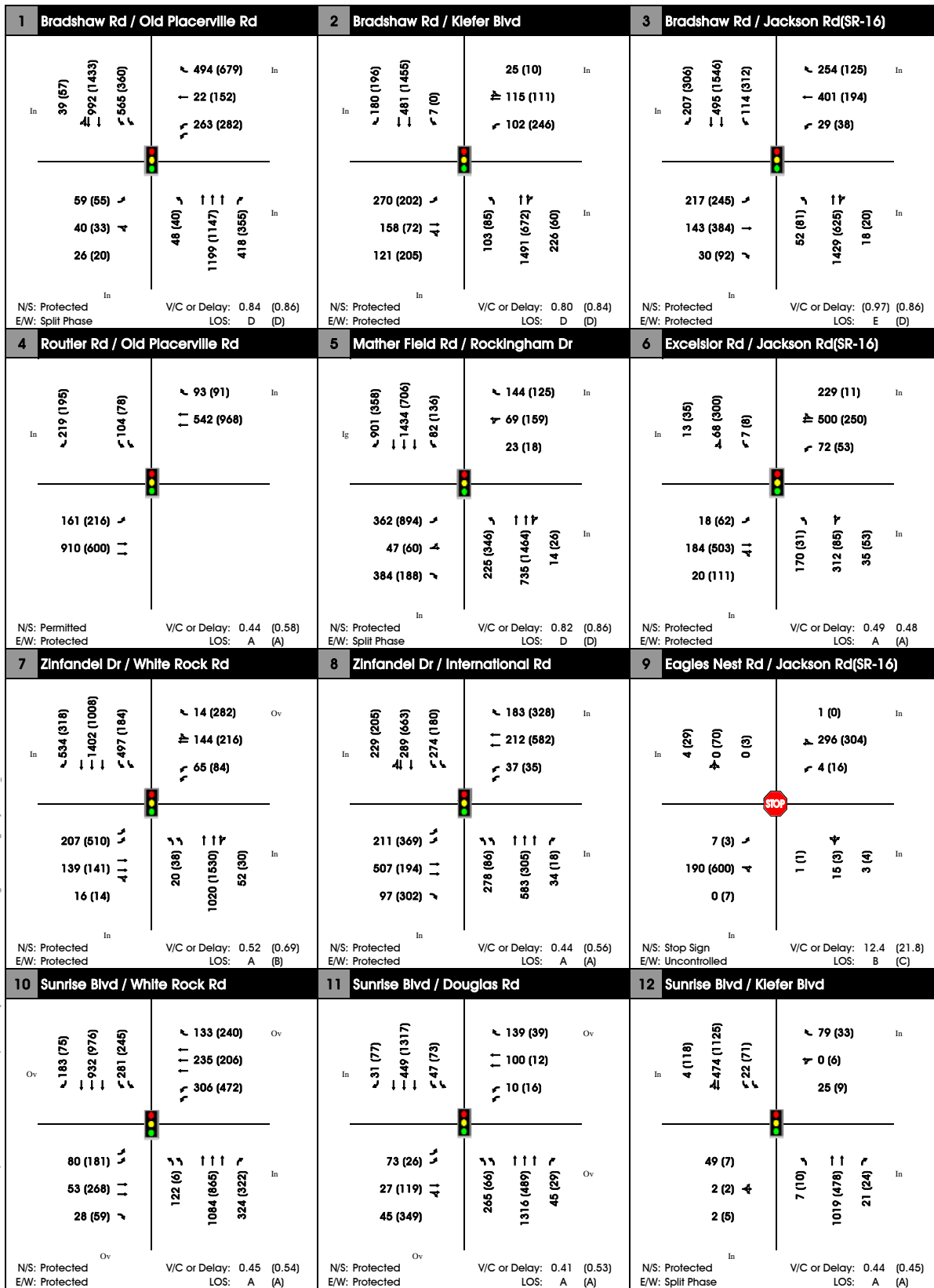
- Bradshaw Rd - Old Placerville Rd to Kiefer Blvd – LOS "F"

City of Rancho Cordova Roadway Segments

Table 14 summarizes roadway operating conditions. All of the City of Rancho Cordova roadway segments meet the Level of Service (LOS) "D" standard with the following exceptions:

- Bradshaw Rd - US-50 to Old Placerville Rd – LOS "F"
- Sunrise Blvd - Kiefer Blvd to Jackson Rd (SR-16) – LOS "E"
- Old Placerville Rd - Bradshaw Rd to Routier Rd – LOS "F"

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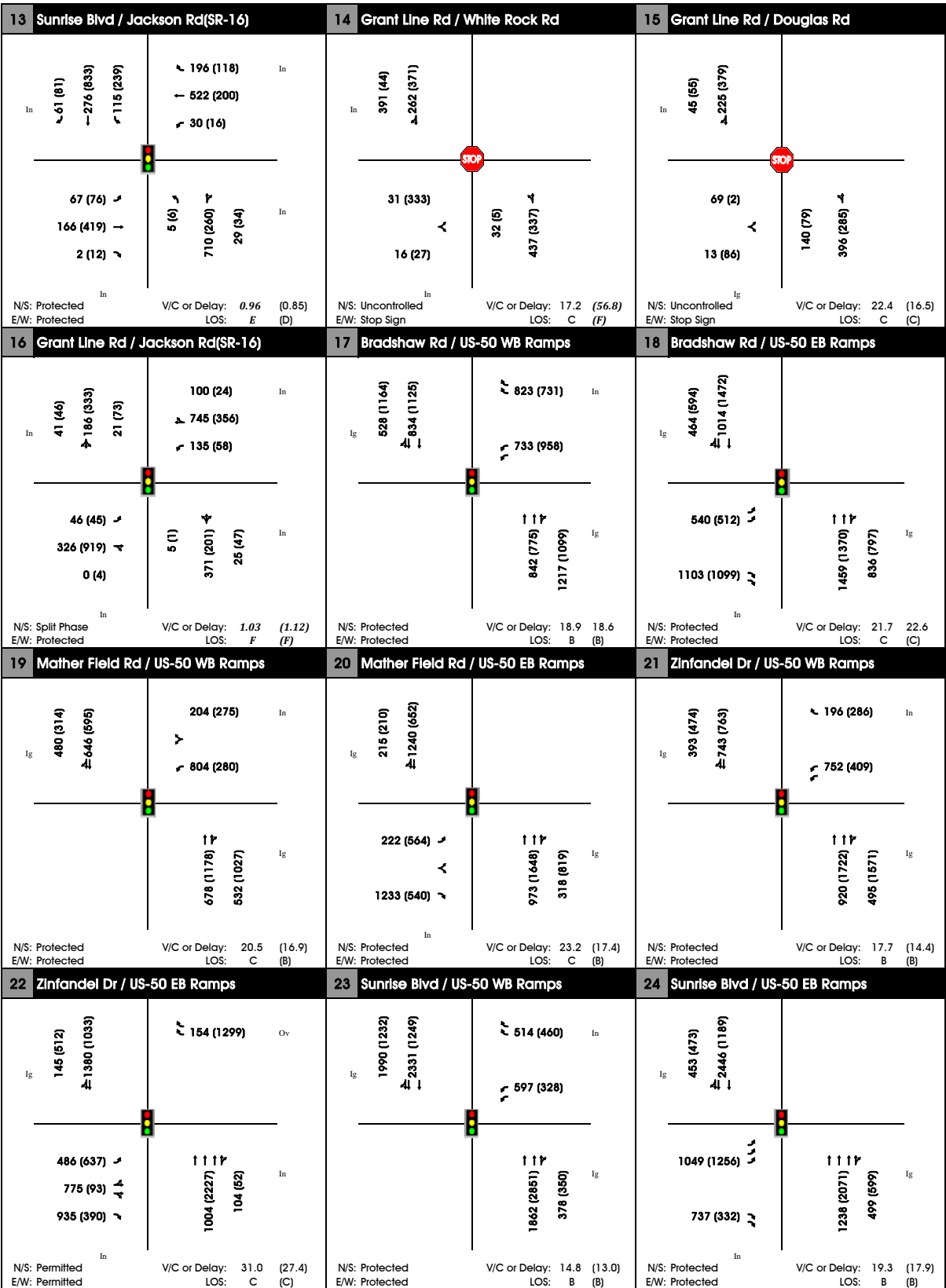
Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



FIGURE 4

DRAFT BASELINE NO PROJECT CONDITIONS

**INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM
 MATHER SPECIFIC PLAN**



Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.

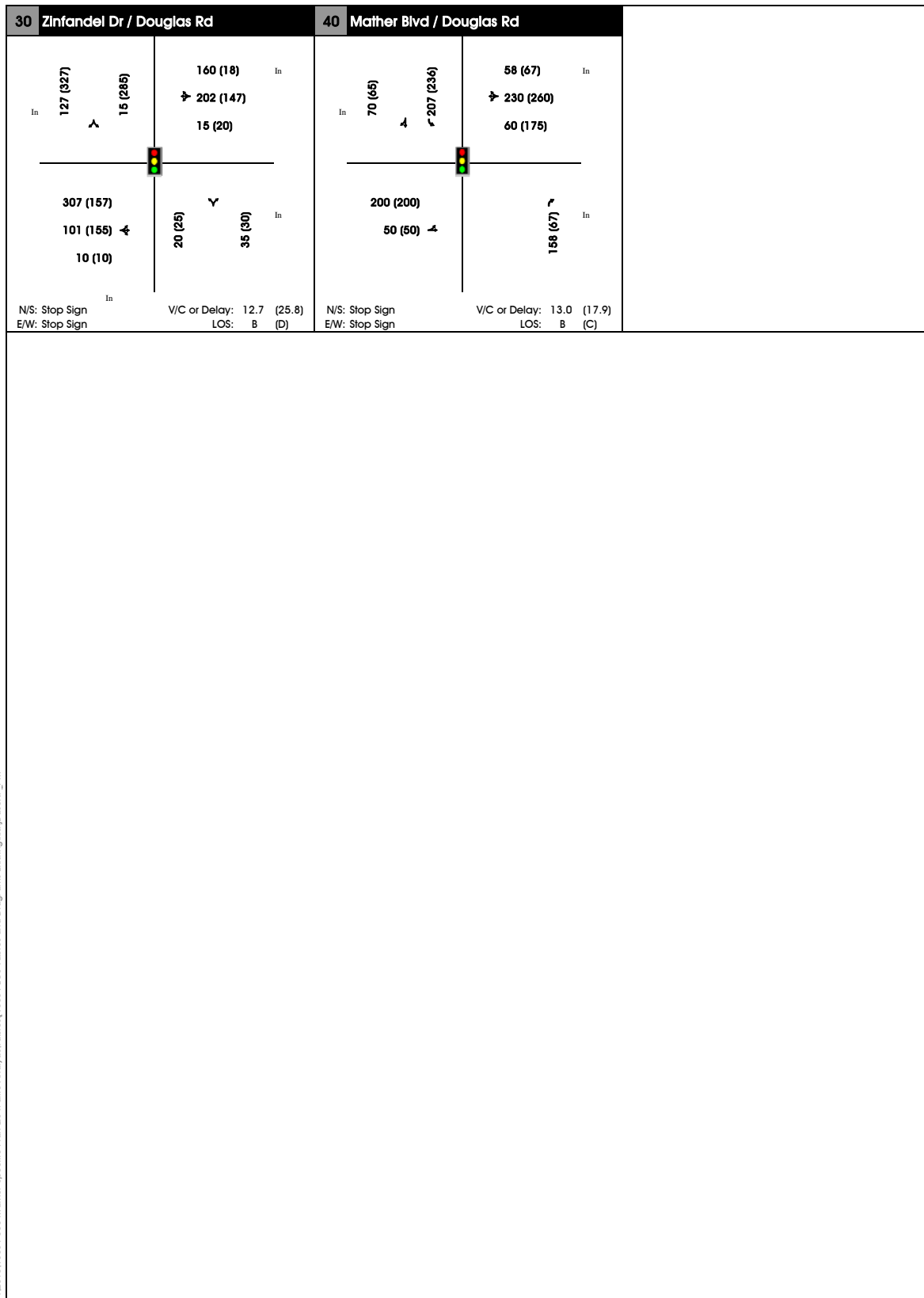


FIGURE 4

DRAFT BASELINE NO PROJECT CONDITIONS

INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM

MATHER SPECIFIC PLAN



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Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.

**TABLE 13
BASELINE AM/PM PEAK HOUR INTERSECTION OPERATING CONDITIONS - SACRAMENTO COUNTY, CITY OF RANCHO CORDOVA CALTRANS**

| Intersection | | Level of Service (LOS) Methodology | | Baseline No Project Conditions | | | | | |
|-------------------------------|--------------------|------------------------------------|-----------------|--------------------------------|------------------|-----|-----------------|------------------|----------|
| | | | | AM Peak Hour | | | PM Peak Hour | | |
| North-South Street | East-West Street | Analysis Methodology | Policy Standard | Meets Signal Warrant | V/C or Delay [1] | LOS | Signal Warrant | V/C or Delay [1] | LOS |
| Sacramento County | | | | | | | | | |
| Bradshaw Rd | Kiefer Blvd | Circular 212 Planning | E | -- | 0.80 | D | -- | 0.84 | D |
| Bradshaw Rd | Jackson Rd(SR-16) | Circular 212 Planning | E | -- | 0.97 | E | -- | 0.86 | D |
| Excelsior Rd | Jackson Rd(SR-16) | Circular 212 Planning | E | -- | 0.49 | A | -- | 0.48 | A |
| Eagles Nest Rd | Jackson Rd(SR-16) | 2000 HCM Unsignalized | E | No | 12.4 | B | No | 21.8 | C |
| Grant Line Rd | White Rock Rd | 2000 HCM Unsignalized | E | No | 17.2 | C | Yes 56.8 | | F |
| City of Rancho Cordova | | | | | | | | | |
| Bradshaw Rd | Old Placerville Rd | Circular 212 Planning | D | -- | 0.84 | D | -- | 0.86 | D |
| Routier Rd | Old Placerville Rd | Circular 212 Planning | D | -- | 0.44 | A | -- | 0.58 | A |
| Mather Field Rd | Rockingham Dr | Circular 212 Planning | D | -- | 0.82 | D | -- | 0.86 | D |
| Zinfandel Dr | White Rock Rd | Circular 212 Planning | D | -- | 0.52 | A | -- | 0.69 | B |
| Zinfandel Dr | International Rd | Circular 212 Planning | D | -- | 0.44 | A | -- | 0.56 | A |
| Sunrise Blvd | White Rock Rd | Circular 212 Planning | D | -- | 0.45 | A | -- | 0.54 | A |
| Sunrise Blvd | Douglas Rd | Circular 212 Planning | D | -- | 0.41 | A | -- | 0.53 | A |
| Sunrise Blvd | Kiefer Blvd | Circular 212 Planning | D | -- | 0.44 | A | -- | 0.45 | A |
| Sunrise Blvd | Jackson Rd(SR-16) | Circular 212 Planning | D | -- | 0.96 E | | -- | 0.85 | D |
| Grant Line Rd | Douglas Rd | 2000 HCM Unsignalized | D | No | 22.4 | C | No | 16.5 | C |
| Grant Line Rd | Jackson Rd(SR-16) | Circular 212 Planning | D | -- | 1.03 F | | -- | 1.12 | F |
| Excelsior Rd | Kiefer Blvd | 2000 HCM 4-Way Stop | D | -- | -- | -- | -- | -- | -- |
| Zinfandel Rd | Douglas Rd | 2000 HCM 4-Way Stop | D | No | 12.7 | B | No | 25.8 | D |
| Zinfandel Rd | Chrysanthy Blvd | 2000 HCM 4-Way Stop | D | -- | -- | -- | -- | -- | -- |
| Mather Blvd | Douglas Rd | 2000 HCM 4-Way Stop | D | No | 13.0 | B | No | 17.90 | C |
| Caltrans State Highway | | | | | | | | | |
| Bradshaw Rd | US-50 WB Ramps | 2000 HCM Operations | E | -- | 18.9 | B | -- | 18.6 | B |
| Bradshaw Rd | US-50 EB Ramps | 2000 HCM Operations | E | -- | 21.7 | C | -- | 22.6 | C |
| Mather Field Rd | US-50 WB Ramps | 2000 HCM Operations | E | -- | 20.5 | C | -- | 16.9 | B |
| Mather Field Rd | US-50 EB Ramps | 2000 HCM Operations | E | -- | 23.2 | C | -- | 17.4 | B |
| Zinfandel Dr | US-50 WB Ramps | 2000 HCM Operations | E | -- | 17.7 | B | -- | 14.4 | B |
| Zinfandel Dr | US-50 EB Ramps | 2000 HCM Operations | E | -- | 31.0 | C | -- | 27.4 | C |
| Sunrise Blvd | US-50 WB Ramps | 2000 HCM Operations | E | -- | 14.8 | B | -- | 13.0 | B |
| Sunrise Blvd | US-50 EB Ramps | 2000 HCM Operations | E | -- | 19.3 | B | -- | 17.9 | B |

[1] V/C = Volume-to Capacity ratio, Delay; At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay. At unsignalized, 2-Way Stop intersections (Based on the 2000 HCM Unsignalized methodology) the reported delay is for the worst approach. At signalized intersections (based on the 2000 HCM Operations) the reported delay is the intersection delay. Bold indicates deficiency. Shaded areas indicate impact. Source: DKS Associates, 2010.

TABLE 14
BASELINE LEVEL OF SERVICE - SACRAMENTO CO & CITY OF RANCHO CORDOVA ROADWAY SEGMENTS

| Roadway Segment | LOS Policy | Lanes | Facility Type | Baseline | | No Project | |
|----------------------------------------------------------|------------|-------|---------------|----------|--------|---------------|-----|
| | | | | Capacity | Volume | V/C | LOS |
| Bradshaw Rd - US-50 to Old Placerville Rd | D | 6 | Arterial - M | 54,000 | 59,000 | 1.09 F | |
| Bradshaw Rd - Old Placerville Rd to Kiefer Blvd | E | 4 | Arterial - M | 36,000 | 41,500 | 1.15 F | |
| Bradshaw Rd - Kiefer Blvd to Jackson Rd (SR-16) | E | 4 | Arterial - M | 36,000 | 27,600 | 0.77 | C |
| Bradshaw Rd - Jackson Rd (SR-16) to Elder Creek Rd | E | 4 | Arterial - M | 36,000 | 23,000 | 0.64 | B |
| Happy Ln - Old Placerville Rd to Kiefer Blvd | E | 2 | Arterial - M | 18,000 | 3,700 | 0.21 | A |
| Mather Field Rd - US-50 to Old Placerville Rd | D | 6 | Arterial - M | 54,000 | 39,200 | 0.73 | C |
| Excelsior Rd - North of Jackson Rd to Jackson Rd (SR-16) | E | 2 | Arterial - M | 18,000 | 3,800 | 0.22 | C |
| Excelsior Rd - Jackson Rd (SR-16) to Elder Creek Rd | E | 2 | Arterial - M | 18,000 | 5,000 | 0.29 | C |
| Zinfandel Dr - US-50 to White Rock Rd | D | 6 | Arterial - M | 54,000 | 48,400 | 0.90 | D |
| Zinfandel Dr - White Rock Rd to International Dr | D | 6 | Arterial - M | 54,000 | 29,800 | 0.55 | A |
| Zinfandel Dr - South of International to Douglas Rd | D | 2 | Arterial - M | 18,000 | 6,500 | 0.12 | A |
| Eagles Nest Rd - Douglas Rd to Kiefer Blvd | E | 2 | Arterial - M | 18,000 | | | |
| Eagles Nest Rd - Kiefer Blvd to Jackson Rd (SR-16) | E | 2 | Arterial - M | 18,000 | | | |
| Eagles Nest Rd - Jackson Rd (SR-16) to Florin Rd | E | 2 | Arterial - M | 18,000 | | | |
| Sunrise Blvd - Folsom Blvd to White Rock Rd | D | 6 | Arterial - M | 54,000 | 47,900 | 0.89 | D |
| Sunrise Blvd - White Rock Rd to Douglas Rd | D | 6 | Arterial - M | 54,000 | 24,300 | 0.45 | A |
| Sunrise Blvd - Douglas Rd to Kiefer Blvd | D | 5 | Arterial - M | 45,000 | 24,700 | 0.55 | A |
| Sunrise Blvd - Kiefer Blvd to Jackson Rd (SR-16) | D | 2 | Arterial - M | 18,000 | 17,700 | 0.98 E | |
| Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd | E | 2 | Rural S | 20,000 | 11,300 | 0.57 | D |
| Grant Line Rd - White Rock Rd to Douglas Rd | D | 2 | Rural NS | 17,000 | 9,400 | 0.55 | D |
| Grant Line Rd - Douglas Rd to Chrysanthy Blvd | D | 2 | Rural S | 20,000 | 6,500 | 0.33 | C |
| Grant Line Rd - Chrysanthy Blvd to Kiefer Blvd | D | 2 | Rural S | 20,000 | 6,500 | 0.33 | C |
| Grant Line Rd - Kiefer Blvd to Jackson Rd (SR-16) | D | 2 | Rural S | 20,000 | 7,700 | 0.39 | D |
| Grant Line Rd - Jackson Rd (SR-16) to Sunrise Blvd | E | 2 | Rural S | 20,000 | 7,800 | 0.39 | D |
| White Rock Rd - Zinfandel Dr to Sunrise Blvd | D | 6 | Arterial - M | 54,000 | 6,500 | 0.12 | A |
| White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy | D | 4 | Arterial - M | 36,000 | 10,000 | 0.28 | A |
| White Rock Rd - Rancho Cordova Pkwy to Grant Line Rd | D | 2 | Rural NS | 17,000 | 3,300 | 0.19 | B |
| Old Placerville Rd - Bradshaw Rd to Routier Rd | D | 2 | Arterial - M | 18,000 | 18,400 | 1.02 F | |
| International Drive - Zinfandel Dr to Kilgore Rd | D | 6 | Arterial - M | 54,000 | 27,100 | 0.50 | A |
| Douglas Rd Ext - Extension to Excelsior Rd | D | 2 | Arterial - M | 18,000 | | | |
| Douglas Rd - Eagles Nest Rd to Sunrise Blvd | D | 2 | Arterial - M | 18,000 | 5,000 | 0.28 | A |
| Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy | D | 6 | Arterial - M | 54,000 | 4,400 | 0.08 | A |
| Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd | E | 2 | Arterial - M | 18,000 | 12,200 | 0.68 | B |
| Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd | E | 2 | Rural Hwy | 22,900 | 10,100 | 0.44 | D |
| Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd | E | 2 | Rural Hwy | 22,900 | 9,100 | 0.40 | D |
| Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd | E | 2 | Rural Hwy | 22,900 | 9,200 | 0.40 | D |
| Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd | D | 2 | Rural Hwy | 22,900 | 13,000 | 0.57 | D |
| Jackson Rd (SR-16) - Grant Line Rd to Kiefer Blvd | E | 2 | Rural Hwy | 22,900 | 14,300 | 0.62 | E |
| Mather Blvd - Douglas Rd to Base | D | 2 | Arterial - M | 18,000 | 6,300 | 0.35 | A |

Notes: LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial - M = Arterial with moderate access control; Rural Hwy = Rural 2-lane highway, Rural S = Rural 2-lane road with 24'-36' of pavement and paved shoulders; Rural NS = rural 2-lane road with 24'-36' of pavement and no shoulders

Source: DKS Associates 2010

Caltrans Freeway Mainline

Level of service analyses were also conducted for the study area freeway segments based upon a.m. peak hour traffic volumes, and number of both mixed flow and full auxiliary lanes. **Table 15** summarizes the freeway levels of service. All of the Caltrans freeway segments meet the LOS “E” standard.

Caltrans Freeway Merge, Diverge, and Weaving Areas

Level of service analyses were also conducted for the study area freeway merge, diverge, and weaving areas. **Table 16** summarizes the freeway levels of service. All of the Caltrans freeway merge, diverge, and weaving areas meet the LOS “E” standard.

**TABLE 15
BASELINE LEVEL OF SERVICE - CALTRANS FREEWAY MAINLINE SEGMENTS**

| Segment Lanes | Baseline No Project | | | |
|------------------------------------------|---------------------|----------------------|------------------|---|
| | Volumes | Density ² | LOS ³ | |
| AM Peak Hour | | | | |
| US-50 EB Watt Ave to Bradshaw Rd | 4 | 7,710 | 38 | E |
| US-50 EB Bradshaw Rd to Mather Field Rd | 4 | 7,190 | 34 | D |
| US-50 EB Mather Field Rd to Zinfandel Dr | 5 | 6,340 | 26 | D |
| US-50 EB Zinfandel Dr to Sunrise Blvd | 4 | 4,850 | 21 | C |
| US-50 EB Sunrise Blvd to Hazel Ave | 4 | 4,260 | 24 | C |
| US-50 WB Hazel Ave to Sunrise Blvd | 4 | 6,040 | 36 | E |
| US-50 WB Sunrise Blvd to Zinfandel Dr | 4 | 7,820 | 40 | E |
| US-50 WB Zinfandel Dr to Mather Field Rd | 5 | 7,350 | 27 | D |
| US-50 WB Mather Field Rd to Bradshaw Rd | 4 | 7,360 | 35 | D |
| US-50 WB Bradshaw Rd to Watt Ave | 4 | 7,910 | 41 | E |
| PM Peak Hour | | | | |
| US-50 EB Watt Ave to Bradshaw Rd | 4 | 7,640 | 38 | E |
| US-50 EB Bradshaw Rd to Mather Field Rd | 4 | 6,980 | 32 | D |
| US-50 EB Mather Field Rd to Zinfandel Dr | 5 | 7,170 | 27 | D |
| US-50 EB Zinfandel Dr to Sunrise Blvd | 4 | 7,040 | 33 | D |
| US-50 EB Sunrise Blvd to Hazel Ave | 4 | 6,230 | 37 | E |
| US-50 WB Hazel Ave to Sunrise Blvd | 4 | 5,070 | 28 | D |
| US-50 WB Sunrise Blvd to Zinfandel Dr | 4 | 4,930 | 22 | C |
| US-50 WB Zinfandel Dr to Mather Field Rd | 5 | 6,240 | 24 | C |
| US-50 WB Mather Field Rd to Bradshaw Rd | 4 | 6,770 | 31 | D |
| US-50 WB Bradshaw Rd to Watt Ave | 4 | 7,600 | 37 | E |

¹ Based on Freeway Performance Measurement System data from April and May 2008

² Density given as passenger cars per mile per lane

³ LOS = Level of Service

**TABLE 16
BASELINE LEVEL OF SERVICE - CALTRANS FREEWAY MERGE/DIVERGE WEAVING AREAS**

| Segment | Ramp Type | Peak Hour Ramp Volumes | | Peak Hour Ramp Density/LOS | | | |
|----------------------------|-------------|------------------------|-------|----------------------------|-----|---------|-----|
| | | Baseline No Project | | Baseline No Project | | | |
| | | AM | PM | Density | LOS | Density | LOS |
| | | | | | | | |
| US-50 Eastbound | | | | | | | |
| Bradshaw Road Off-Ramp | | 1,643 | 1,611 | 20.0 | B | 16.0 | B |
| Bradshaw Road On-Ramp | Loop | 464 | 594 | 20.3 | C | 17.6 | B |
| Bradshaw Road On-Ramp | Slip | 836 | 797 | 28.2 | D | 23.7 | C |
| Mather Field Road Off-Ramp | | 1,446 | 1,104 | 42.5 F | | 35.0 | D |
| Mather Field Road On-Ramp | Loop | 218 | 210 | 18.9 | B | 16.7 | B |
| Zinfandel Drive On-Ramp | Loop | 145 | 512 | 16.2 | B | 18.4 | B |
| Zinfandel Drive On-Ramp | Slip | 255 | 854 | 16.3 | B | 19.3 | B |
| Sunrise Boulevard On-Ramp | Loop & Slip | 948 | 1,081 | 23.2 | C | 33.1 | D |
| US-50 Westbound | | | | | | | |
| Zinfandel Drive Off-Ramp | | 948 | 695 | 30.9 | D | 30.8 | D |
| Zinfandel Drive On-Ramp | Slip | 131 | 832 | 17.8 | B | 16.7 | B |
| Mather Field Road On-Ramp | Loop & Slip | 1,012 | 1,339 | 29.5 | D | 28.3 | D |
| Bradshaw Road Off-Ramp | | 1,556 | 1,687 | 17.7 | B | 18.4 | B |
| Bradshaw Road On-Ramp | Loop | 1,250 | 1,103 | 19.7 | B | 19.1 | B |
| Bradshaw Road On-Ramp | Slip | 1,250 | 1,103 | 19.7 | B | 19.1 | B |

¹ Based on Freeway Performance Measurement System data from April and May 2008

² Density given as passenger cars per mile per lane

³ LOS = Level of Service

Bold indicates deficiency. Shaded areas indicate impact.

DKS Associates 2010

Environmental Impacts

Thresholds of Significance

ROADWAY FACILITIES

Because the project under consideration would cause traffic impacts on transportation facilities that are under state, County, and City jurisdictions, this analysis was conducted using a combination of policies and guidelines. Each roadway facility was analyzed in accordance with the policies and guidelines of its jurisdiction.

Sacramento County defines the minimum acceptable operation level for its roadways and intersections to be LOS D for rural areas and LOS E for urban areas. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural. This traffic study identifies significant environmental effects of the proposed project. In describing the significant impacts, this study identifies whether the impacts are avoidable (where the environmental effect of the proposed project reaches the threshold of significance but feasible mitigation measures are available to reduce the impact to a less-than-significant level), or unavoidable (where no feasible mitigation is available to reduce the impact to a less-than-significant level). The following thresholds of significance are used in this study to determine if an impact is significant and requires mitigation in Sacramento County:

Roadways/Signalized Intersections: A project is considered to have a significant effect if it would:

- result in a roadway or a signalized intersection operating at an acceptable LOS to deteriorate to an unacceptable LOS; or
- increase the V/C ratio by more than 0.05 at a roadway or at a signalized intersection that is operating at an unacceptable LOS without the project.

Unsignalized Intersections: A project is considered to have a significant effect if it would:

- result in an unsignalized intersection movement/approach operating at an acceptable LOS to deteriorate to an unacceptable LOS, and also cause the intersection to meet a traffic signal warrant; or
- for an unsignalized intersection that meets a signal warrant, increase the delay by more than 5 seconds at a movement/approach that is operating at an unacceptable LOS without the project.

The City of Rancho Cordova identifies LOS “D” as its minimum standard for intersection and roadway operations. For City of Rancho Cordova facilities, an impact is deemed significant if: The facility is operating at an acceptable level of service (better than or equal to LOS “D”) without the project, and the addition of traffic associated with the project degrades the level of service to worse than LOS “D”, or, 2. The facility is operating worse than LOS “D” without the project, and the addition of traffic associated with the project causes delay at an unsignalized intersection that meets signal warrants to increase by more than 5 seconds, or the v/c ratio at

signalized intersections to increase by more than 0.05, or the v/c on segments to increase by more than 0.05.

For state-controlled facilities, thresholds presented in the State's Corridor System Management Plan or Route Concept Report were applied. (The concept service level for Jackson Road is LOS "E." The concept service level for U.S. 50 is LOS "F." For this study, LOS "E" is applied to U.S. 50 as a conservative approach for identifying impacts). For state-controlled facilities, an impact is deemed significant if: The facility is operating at an acceptable level of service (better than or equal to LOS "E") without the project, and the addition of traffic associated with the project degrades the level of service to worse the LOS "E", or, 2. The facility is operating worse than LOS "E" without the project, and the addition of traffic associated with the project causes any volume increase on the state controlled facility.

BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES

Bicycle facilities include Class I (off-street facilities), Class II (on-street bicycle lanes identified with signage and markings), and Class III (on-street bicycle routes identified by signage). Pedestrian facilities are composed of paths, sidewalks, and pedestrian crossings. Transit facilities include shuttle services, bus service, BRT, and light-rail facilities.

A bicycle or pedestrian impact is considered significant if the proposed project would:

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

A project is considered to have a significant impact on the public transit system if the project would generate ridership which, when added to existing or future ridership, exceeds available or planned system capacity.

Analysis Methodology

Project Trip Generation

Trip generation of the project is based upon information on trip generation compiled by the Institute of Transportation Engineers (Trip Generation, Eighth Edition, 2008) and the project description. Details of the trip generation estimation are included in the technical appendix.

These trip generation values do not assume any substantial reductions in trip generation within the project site due to special efforts, such as project design, transportation management associations, etc. This provides a conservative analysis of the proposed project's impacts. These

volumes are based upon the ultimate uses of the proposed project. It is assumed that interim uses which may occur, such as aggregate mining, would exist at an earlier phase of development of Mather Field, and that the total trip generation at that time would be less than at the ultimate buildout of the proposed project.

Within the project area, trips can be made between the various land uses without accessing the external roadway system. These trips are known as internal trips. The number of internal trips was calculated by the SACMET travel model. The travel model divides all trips by trip purposes, such as trips from home to work, work to shopping, and work to home. The model then distributes and assigns these trips between appropriate trips origins and destinations. The distribution process considers the land use type, land use size, type of trip, time of day, and competing off-site uses. The trips that remain in the project site are the internal trips. For the project, the number of internal trips is estimated to be 716 trips in the a.m. peak hour, 1,148 trips in the p.m. peak hour, and 12,030 daily trips.

Table 17 summarizes the trip generation of the project. The project is anticipated to generate 9,448 a.m. peak hour trip ends, 12,517 p.m. peak hour trip ends, and 136,047 weekday daily trip ends. A Trip End is equal to one trip and is a single or one-directional vehicle movement with either the origin or the destination (exiting or entering) in the study site. Trip ends include trips leaving the project boundary as well as internal trips.

**TABLE 17
PREFERRED ALTERNATIVE A PROJECT TRIP GENERATION**

| Project Component | Size | Daily | Cumulative Year 2035 | | Cumulative Year 2035 + Project | |
|---------------------------------------|---------------------------------------|--------|----------------------|--------------|--------------------------------|--------------|
| | | | AM Peak Hour | | PM Peak Hour | |
| | | | Entering | Exiting | Entering | Exiting |
| Airport Commercial – Light Industrial | 6,220,368 sf General Light Industrial | 44,614 | 2,434 | 1,007 | 1,511 | 2,546 |
| Commercial Development – LI | 822,4131 sf General Light Industrial | 5,689 | 310 | 128 | 193 | 325 |
| Commercial Development Comm/Retail | 630,332 sf Retail | 23,305 | 810 | 512 | 986 | 1,246 |
| Private University | 7,500 Students | 17,071 | 778 | 445 | 652 | 877 |
| Residential/Elementary School | 2,530 Dwelling Units | 20,935 | 585 | 1,032 | 1,093 | 755 |
| Neighborhood Center/Comm Town | 320,166 sf Retail | 12,299 | 420 | 264 | 525 | 662 |
| Sports Village/Fields | 274 acres | 12,134 | 396 | 327 | 539 | 607 |
| Total 136,047 | | | 5,733 | 3,715 | 5,499 | 7,018 |

DKS Associates 2010, ITE Trip Generation, Eighth Edition, 2008

Project Trip Distribution

The distribution of trips associated with development on the project site was derived utilizing the regional SACMET travel model, observations of travel patterns near the site, and knowledge of the proposed access locations associated with the site. Trip distribution varies by land use and time period. **Figure 5** and **Table 18** illustrates the trip distribution based upon project traffic during the day.

**TABLE 18
TRIP DISTRIBUTION - PREFERRED ALTERNATIVE A**

| Route Baseline | Estimated Trip Distribution (Percent) | |
|-------------------------------------------|---------------------------------------|------------|
| | | Cumulative |
| S.R. 50 Via Bradshaw Road Interchange | 10 | 10 |
| S.R. 50 via Mather Boulevard Interchange | 15 | 10 |
| S.R. 50 via Zinfandel Drive Interchange | 25 | 15 |
| S.R. 50 via Sunrise Boulevard Interchange | 5 | 1 |
| Jackson via Bradshaw Road | 5 | 5 |
| Jackson via Excelsior Road | 2 | 5 |
| Jackson via Eagles Nest Road | 15 | 20 |
| Jackson Road via Sunrise Boulevard | 5 | 10 |
| Other Roads / Internal Trips | 18 | 24 |

Source: DKS Associates, 2010

Baseline Plus Preferred Project Scenario Analysis

For determination of impact significance, conditions associated with the Plus Mather Specific Plan Project scenario are compared to Baseline Conditions.

Land Use / Trip Generation / Trip Distribution

The “Plus Preferred Alternative” scenario includes the trip generation of the Project as described in the earlier Trip Generation section. This traffic is distributed on study area roadways as described in the earlier Trip Distribution section.

Roadway Network

Roadways assumed to be developed with the “Plus Preferred Alternative” scenario include the improvement of Eagles Nest Road between Douglas Road and Kiefer Boulevard and construction of the extension of Douglas Road around the Independence at Mather development to Excelsior Road. **Figure 2** shows the baseline and baseline plus preferred alternative networks.

Baseline Plus Preferred Alternative Scenario Traffic Volumes

Peak hour traffic volumes of the baseline plus preferred alternative scenario are illustrated in **Figure 6**. Daily segment traffic volumes of the baseline and baseline plus preferred alternative scenarios are summarized in **Table 20**.

Baseline Plus Preferred Alternative Scenario Impacts

Sacramento County Intersections

Table 19 summarizes a.m. and p.m. peak hour intersection operating conditions at the study area intersections under Baseline conditions with the addition of the preferred alternative. The following intersections are considered to have a significant impact due to the project:

- Bradshaw Road and Jackson Road (SR-16) – Operating conditions would degrade from an acceptable LOS “E” to an unacceptable LOS “F” in the a.m. peak hour.
- Eagles Nest Road and Jackson Road (SR-16) – Operating conditions at this unsignalized intersection would degrade from an acceptable LOS “B” to an unacceptable LOS “F” in the a.m. peak hour and would degrade from an acceptable LOS “C” to an unacceptable LOS “F” in the p.m. peak hour. This intersection meets peak hour signal warrants with the addition of the project traffic during a.m. and p.m. peak periods.
- Grant Line Road and White Rock Road – Operating conditions at this unsignalized intersection would further delay at an unacceptable LOS “F” in the p.m. peak hour, with an increase in delay of more than five seconds, and meets peak hour signal warrants.

City of Rancho Cordova Intersections

Table 19 summarizes a.m. and p.m. peak hour intersection operating conditions at the study area intersections under Baseline conditions with the addition of the preferred alternative. The following intersection is considered to have a significant impact due to the project:

- Bradshaw Road and Old Placerville Road – Operating conditions would degrade from an acceptable LOS “D” to an unacceptable LOS “F” in the a.m. peak hour and would degrade from an acceptable LOS “D” to an unacceptable LOS “E” in the p.m. peak hour.
- Mather Field Road and Rockingham Drive – Operating conditions would degrade from an acceptable LOS “D” to an unacceptable LOS “F” in the a.m. and p.m. peak periods.
- Sunrise Boulevard and Jackson Road (SR-16) – Operating conditions already at an unacceptable LOS “E” would further degrade to an unacceptable LOS “F” in the a.m. peak hour. During the p.m. peak hour, operating conditions would degrade from an acceptable LOS “D” to an unacceptable LOS “E”.
- Grant Line Road and Douglas Road – Operating conditions would degrade from an acceptable LOS “C” to an unacceptable LOS “E” in the a.m. peak hour.
- Zinfandel Drive and Douglas Road – Operating conditions at this unsignalized intersection would degrade from an acceptable LOS “B” to an unacceptable LOS “F” in the a.m. peak hour and would degrade from an acceptable LOS “D” to an unacceptable LOS “F” in the p.m. peak hour. This intersection meets peak hour signal warrants with the addition of the project traffic during a.m. and p.m. peak periods.
- Zinfandel Drive and Chrysanthy Boulevard – Operating conditions at this unsignalized intersection would operate at an unacceptable LOS “F” in the a.m. peak hour and p.m. peak hour. This intersection meets peak hour signal warrants with the addition of the project traffic during a.m. and p.m. peak periods.
- Mather Boulevard and Douglas Road – Operating conditions at this unsignalized intersection would degrade from an acceptable LOS “B” to an unacceptable LOS “F” in the a.m. peak hour and would degrade from an acceptable LOS “C” to an unacceptable LOS “F” in the p.m. peak hour. This intersection meets peak hour signal warrants with the addition of the project traffic during a.m. and p.m. peak periods.

CALTRANS State Highway Intersections

Table 19 summarizes a.m. peak hour intersection operating conditions at the study area intersections under Baseline conditions with the addition of the Preferred Alternative A. The increase in traffic due to the project results in less-than-significant impacts at the subject intersections.

Sacramento County Roadway Segments

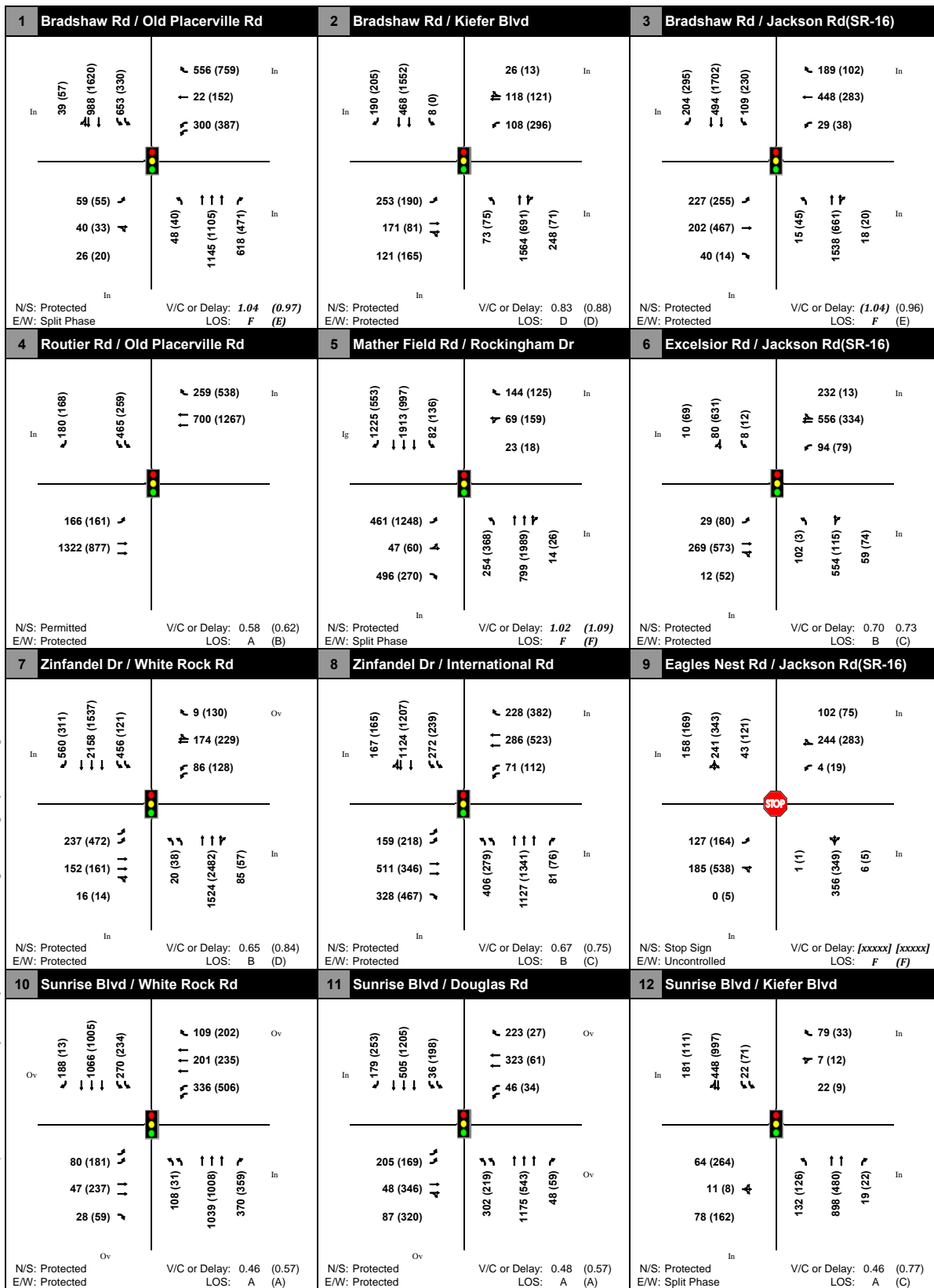
Table 20 summarizes roadway operating conditions under Baseline conditions with the addition of the Preferred Alternative A. The increase in traffic due to the project results in less-than-significant impacts at the subject roadway segments.

City of Rancho Cordova Roadway Segments

Table 20 summarizes roadway operating conditions under Baseline conditions with the addition of the Preferred Alternative A. The following roadway segments are considered to have a significant impact due to the project:

- Bradshaw Rd - US-50 to Old Placerville Rd – Operating conditions already at an unacceptable LOS “F” degrade, with an increase in V/C ratio of more than 0.05.
- Mather Field Rd - US-50 to Old Placerville Rd – Operations degrade from an acceptable LOS “C” to LOS “E.”
- Zinfandel Dr - US-50 to White Rock Rd – Operations degrade from an acceptable LOS “D” to LOS “F.”
- Zinfandel Dr - White Rock Rd to International Dr – Operations degrade from an acceptable LOS “A” to LOS “E.”
- Sunrise Blvd - Kiefer Blvd to Jackson Rd (SR-16) – Operating conditions already at an unacceptable LOS “E” degrade, with an increase in V/C ratio of more than 0.05.
- Old Placerville Rd - Bradshaw Rd to Routier Rd – Operating conditions already at an unacceptable LOS “F” degrade, with an increase in V/C ratio of more than 0.05.
- Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd – Operations degrade from an acceptable LOS “D” to LOS “E.”

C:\Users\210081\OneDrive\Documents\210081 Mather Specific Plan EIS Traffic Analysis\Tables\10081 LOS Tables and Diagrams\Existing_Vol\Baseline PP Diagram



Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



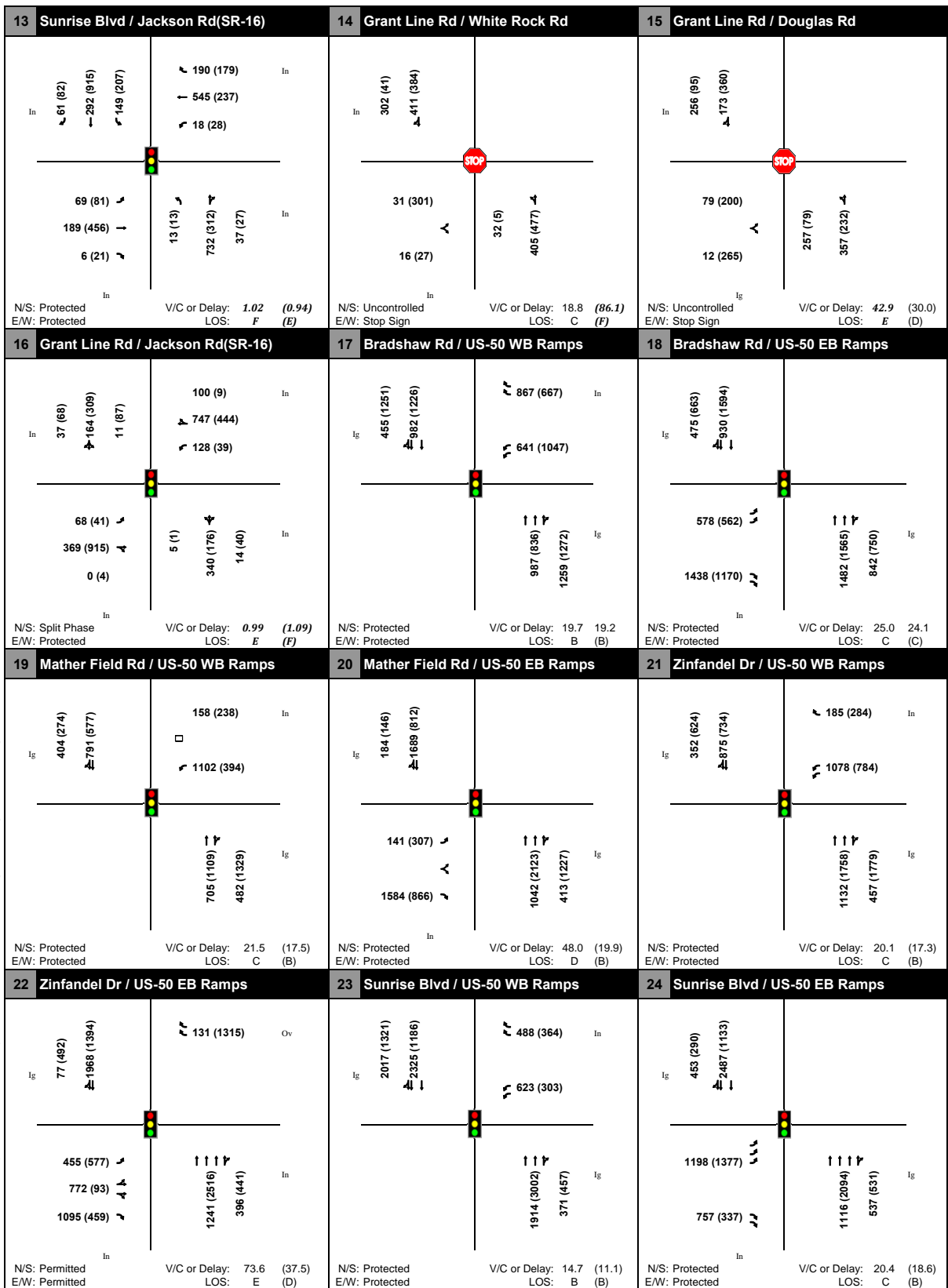
FIGURE 6

DRAFT BASELINE PLUS PROJECT CONDITIONS

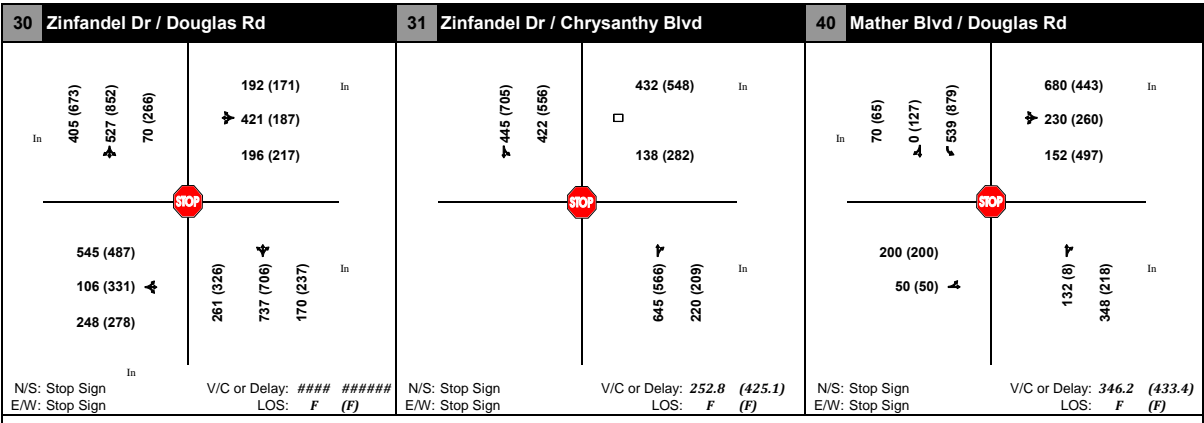
INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM

MATHER SPECIFIC PLAN

Clusers210081-0001 Mather Specific Plan EIS Traffic Analysis Tables\10081 LOS Tables and Diagrams-Existing.xlsx\BasesPF Diagram



Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



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Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



FIGURE 6

DRAFT BASELINE PLUS PROJECT CONDITIONS

INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM

MATHER SPECIFIC PLAN

TABLE 19

BASELINE WITH PROJECT AM/PM PEAK HOUR INTERSECTION OPERATING CONDITIONS-SACRAMENTO COUNTY, CITY OF RANCHO CORDOVA, CALTRANS

| Intersection | | Level of Service (LOS) Methodology | Baseline No Project Conditions | | | | | | | Baseline Plus Project Conditions | | | | | | |
|--------------------------------|--------------------|------------------------------------|--------------------------------|----------------------|------------------|--------------|-----------------|------------------|----------|----------------------------------|------------------|----------|----------------|------------------|----------|--|
| | | | AM Peak Hour | | | PM Peak Hour | | | | AM Peak Hour | | | PM Peak Hour | | | |
| North-South Street | East-West Street | Analysis Methodology | Policy Standard | Meets Signal Warrant | V/C or Delay [1] | LOS | Signal Warrant | V/C or Delay [1] | LOS | Meets Signal Warrant | V/C or Delay [1] | LOS | Signal Warrant | V/C or Delay [1] | LOS | |
| Sacramento County | | | | | | | | | | | | | | | | |
| Bradshaw Rd | Kiefer Blvd | Circular 212 Planning | E | -- | 0.80 | D | -- | 0.84 | D | -- | 0.83 | D | -- | 0.88 | D | |
| Bradshaw Rd | Jackson Rd(SR-16) | Circular 212 Planning | E | -- | 0.97 | E | -- | 0.86 | D | -- | 1.04 | F | -- | 0.96 | E | |
| Excelsior Rd | Jackson Rd(SR-16) | Circular 212 Planning | E | -- | 0.49 | A | -- | 0.48 | A | -- | 0.70 | B | -- | 0.73 | C | |
| Eagles Nest Rd | Jackson Rd(SR-16) | 2000 HCM Unsignalized | E | No | 12.4 | B | No | 21.8 | C | Yes | [xxxxx] | F | Yes | [xxxxx] | F | |
| Grant Line Rd | White Rock Rd | 2000 HCM Unsignalized | E | No | 17.2 | C | Yes 56.8 | | F | No | 18.8 | C | Yes | 86.1 | F | |
| City of Rancho Cordova | | | | | | | | | | | | | | | | |
| Bradshaw Rd | Old Placerville Rd | Circular 212 Planning | D | -- | 0.84 | D | -- | 0.86 | D | -- | 1.04 | F | -- | 0.97 | E | |
| Routier Rd | Old Placerville Rd | Circular 212 Planning | D | -- | 0.44 | A | -- | 0.58 | A | -- | 0.58 | A | -- | 0.62 | B | |
| Mather Field Rd | Rockingham Dr | Circular 212 Planning | D | -- | 0.82 | D | -- | 0.86 | D | -- | 1.02 | F | -- | 1.09 | F | |
| Zinfandel Dr | White Rock Rd | Circular 212 Planning | D | -- | 0.52 | A | -- | 0.69 | B | -- | 0.65 | B | -- | 0.84 | D | |
| Zinfandel Dr | International Rd | Circular 212 Planning | D | -- | 0.44 | A | -- | 0.56 | A | -- | 0.67 | B | -- | 0.75 | C | |
| Sunrise Blvd | White Rock Rd | Circular 212 Planning | D | -- | 0.45 | A | -- | 0.54 | A | -- | 0.46 | A | -- | 0.57 | A | |
| Sunrise Blvd | Douglas Rd | Circular 212 Planning | D | -- | 0.41 | A | -- | 0.53 | A | -- | 0.48 | A | -- | 0.57 | A | |
| Sunrise Blvd | Kiefer Blvd | Circular 212 Planning | D | -- | 0.44 | A | -- | 0.45 | A | -- | 0.46 | A | -- | 0.77 | C | |
| Sunrise Blvd | Jackson Rd(SR-16) | Circular 212 Planning | D | -- | 0.96 E | | -- | 0.85 | D | -- | 1.02 | F | -- | 0.94 | E | |
| Grant Line Rd | Douglas Rd | 2000 HCM Unsignalized | D | No | 22.4 | C | No | 16.5 | C | Yes | 42.9 | E | Yes | 30.0 | D | |
| Grant Line Rd | Jackson Rd(SR-16) | Circular 212 Planning | D | -- | 1.03 | F | -- | 1.12 | F | -- | 0.99 | E | -- | 1.09 | F | |
| Excelsior Rd | Kiefer Blvd | 2000 HCM 4-Way Stop | D | -- | -- | -- | -- | -- | -- | No | 8.6 | A | No | 10.1 | B | |
| Zinfandel Dr | Douglas Rd | 2000 HCM 4-Way Stop | D | No | 12.7 | B | No | 25.8 | D | Yes | 691.2 | F | Yes | 1,084.7 | F | |
| Zinfandel Dr | Chrysanthy Blvd | 2000 HCM 4-Way Stop | D | -- | -- | -- | -- | -- | -- | Yes | 252.8 | F | Yes | 425.1 | F | |
| Mather Blvd | Douglas Rd | 2000 HCM 4-Way Stop | D | No | 13 | B | No | 17.9 | C | Yes | 346.2 | F | Yes | 433.4 | F | |
| Caltrans State Highways | | | | | | | | | | | | | | | | |
| Bradshaw Rd | US-50 WB Ramps | 2000 HCM Operations | E | -- | 18.9 | B | -- | 18.6 | B | -- | 19.7 | B | -- | 19.2 | B | |
| Bradshaw Rd | US-50 EB Ramps | 2000 HCM Operations | E | -- | 21.7 | C | -- | 22.6 | C | -- | 25.0 | C | -- | 24.1 | C | |
| Mather Field Rd | US-50 WB Ramps | 2000 HCM Operations | E | -- | 20.5 | C | -- | 16.9 | B | -- | 21.5 | C | -- | 17.5 | B | |
| Mather Field Rd | US-50 EB Ramps | 2000 HCM Operations | E | -- | 23.2 | C | -- | 17.4 | B | -- | 48.0 | D | -- | 19.9 | B | |
| Zinfandel Dr | US-50 WB Ramps | 2000 HCM Operations | E | -- | 17.7 | B | -- | 14.4 | B | -- | 20.1 | C | -- | 17.3 | B | |
| Zinfandel Dr | US-50 EB Ramps | 2000 HCM Operations | E | -- | 31.0 | C | -- | 27.4 | C | -- | 73.6 | E | -- | 37.5 | D | |
| Sunrise Blvd | US-50 WB Ramps | 2000 HCM Operations | E | -- | 14.8 | B | -- | 13.0 | B | -- | 14.7 | B | -- | 11.1 | B | |
| Sunrise Blvd | US-50 EB Ramps | 2000 HCM Operations | E | -- | 19.3 | B | -- | 17.9 | B | -- | 20.4 | C | -- | 18.6 | B | |

[1] V/C = Volume-to Capacity ratio, Delay; At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology) the reported delay is the average intersection delay. At unsignalized, 2-Way Stop intersections (Based on the 2000 HCM Unsignalized methodology) the reported delay is for the worst approach. At signalized intersections (based on the 2000 HCM Operations) the reported delay is the intersection delay. Bold indicates deficiency. Shaded areas indicate impact. Source: DKS Associates, 2010.

**TABLE 20
BASELINE LEVEL OF SERVICE - SACRAMENTO CO & CITY OF RANCHO CORDOVA ROADWAY SEGMENTS**

| Roadway Segment | LOS Policy | Lanes | Facility Type | Capacity | Baseline | | | Baseline | | |
|----------------------------------------------------------|------------|-------|---------------|----------|------------|--------|-----|----------|--------|-----|
| | | | | | No Project | | LOS | Project | | LOS |
| | | | | | Volume | V/C | | Volume | V/C | |
| Bradshaw Rd - US-50 to Old Placerville Rd | D | 6 | Arterial - M | 54,000 | 59,000 | 1.09 F | C | 63,800 | 1.18 | F |
| Bradshaw Rd - Old Placerville Rd to Kiefer Blvd | E | 4 | Arterial - M | 36,000 | 41,500 | 1.15 F | C | 43,200 | 1.20 F | F |
| Bradshaw Rd - Kiefer Blvd to Jackson Rd (SR-16) | E | 4 | Arterial - M | 36,000 | 27,600 | 0.77 | C | 28,700 | 0.80 | C |
| Bradshaw Rd - Jackson Rd (SR-16) to Elder Creek Rd | E | 4 | Arterial - M | 36,000 | 23,000 | 0.64 | B | 24,100 | 0.67 | B |
| Happy Ln - Old Placerville Rd to Kiefer Blvd | E | 2 | Arterial - M | 18,000 | 3,700 | 0.21 | A | 4,100 | 0.23 | A |
| Mather Field Rd - US-50 to Old Placerville Rd | D | 6 | Arterial - M | 54,000 | 39,200 | 0.73 | C | 50,700 | 0.94 | E |
| Excelsior Rd - North of Jackson Rd to Jackson Rd (SR-16) | E | 2 | Arterial - M | 18,000 | 3,800 | 0.22 | C | 6,100 | 0.36 | D |
| Excelsior Rd - Jackson Rd (SR-16) to Elder Creek Rd | E | 2 | Arterial - M | 18,000 | 5,000 | 0.29 | C | 6,500 | 0.38 | D |
| Zinfandel Dr - US-50 to White Rock Rd | D | 6 | Arterial - M | 54,000 | 48,400 | 0.90 | D | 68,600 | 1.27 | F |
| Zinfandel Dr - White Rock Rd to International Dr | D | 6 | Arterial - M | 54,000 | 29,800 | 0.55 | A | 52,300 | 0.97 | E |
| Zinfandel Dr - South of International to Douglas Rd | D | 2 | Arterial - M | 18,000 | 6,500 | 0.12 | A | 36,000 | 0.67 | B |
| Eagles Nest Rd - Douglas Rd to Kiefer Blvd | E | 2 | Arterial - M | 18,000 | | | | 17,400 | 0.51 | D |
| Eagles Nest Rd - Kiefer Blvd to Jackson Rd (SR-16) | E | 2 | Arterial - M | 18,000 | | | | 16,000 | 0.94 | E |
| Eagles Nest Rd - Jackson Rd (SR-16) to Florin Rd | E | 2 | Arterial - M | 18,000 | | | | 10,000 | 0.59 | D |
| Sunrise Blvd - Folsom Blvd to White Rock Rd | D | 6 | Arterial - M | 54,000 | 47,900 | 0.89 | D | 47,800 | 0.89 | D |
| Sunrise Blvd - White Rock Rd to Douglas Rd | D | 6 | Arterial - M | 54,000 | 24,300 | 0.45 | A | 27,700 | 0.51 | A |
| Sunrise Blvd - Douglas Rd to Kiefer Blvd | D | 5 | Arterial - M | 45,000 | 24,700 | 0.55 | A | 27,700 | 0.62 | B |
| Sunrise Blvd - Kiefer Blvd to Jackson Rd (SR-16) | D | 2 | Arterial - M | 18,000 | 17,700 | 0.98 E | | 20,200 | 1.12 | F |
| Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd | E | 2 | Rural S | 20,000 | 11,300 | 0.57 | D | 12,700 | 0.64 | E |
| Grant Line Rd - White Rock Rd to Douglas Rd | D | 2 | Rural NS | 17,000 | 9,400 | 0.55 | D | 10,100 | 0.59 | D |
| Grant Line Rd - Douglas Rd to Chrysanthy Blvd | D | 2 | Rural S | 20,000 | 6,500 | 0.33 | C | 6,600 | 0.33 | C |
| Grant Line Rd - Chrysanthy Blvd to Kiefer Blvd | D | 2 | Rural S | 20,000 | 6,500 | 0.33 | C | 6,600 | 0.33 | C |
| Grant Line Rd - Kiefer Blvd to Jackson Rd (SR-16) | D | 2 | Rural S | 20,000 | 7,700 | 0.39 | D | 7,300 | 0.37 | D |
| Grant Line Rd - Jackson Rd (SR-16) to Sunrise Blvd | E | 2 | Rural S | 20,000 | 7,800 | 0.39 | D | 7,100 | 0.36 | D |
| White Rock Rd - Zinfandel Dr to Sunrise Blvd | D | 6 | Arterial - M | 54,000 | 6,500 | 0.12 | A | 6,000 | 0.11 | A |
| White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy | D | 4 | Arterial - M | 36,000 | 10,000 | 0.28 | A | 10,100 | 0.28 | A |
| White Rock Rd - Rancho Cordova Pkwy to Grant Line Rd | D | 2 | Rural NS | 17,000 | 3,300 | 0.19 | B | 3,100 | 0.18 | B |
| Old Placerville Rd - Bradshaw Rd to Routier Rd | D | 2 | Arterial - M | 18,000 | 18,400 | 1.02 F | | 23,300 | 1.29 | F |
| International Drive - Zinfandel Dr to Kilgore Rd | D | 6 | Arterial - M | 54,000 | 27,100 | 0.50 | A | 29,100 | 0.54 | A |
| Douglas Rd Ext - Extension to Excelsior Rd | D | 2 | Arterial - M | 18,000 | | | | 2,900 | 0.08 | A |
| Douglas Rd - Eagles Nest Rd to Sunrise Blvd | D | 2 | Arterial - M | 18,000 | 5,000 | 0.28 | A | 13,700 | 0.38 | A |
| Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy | D | 6 | Arterial - M | 54,000 | 4,400 | 0.08 | A | 6,900 | 0.13 | A |
| Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd | E | 2 | Arterial - M | 18,000 | 12,200 | 0.68 | B | 12,400 | 0.69 | B |
| Jackson Rd (SR-16) - Bradshaw Rd to Excelsior Rd | E | 2 | Rural Hwy | 22,900 | 10,100 | 0.44 | D | 10,700 | 0.47 | D |
| Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd | E | 2 | Rural Hwy | 22,900 | 9,100 | 0.40 | D | 11,900 | 0.52 | D |
| Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd | E | 2 | Rural Hwy | 22,900 | 9,200 | 0.40 | D | 10,600 | 0.46 | D |
| Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd | D | 2 | Rural Hwy | 22,900 | 13,000 | 0.57 | D | 15,000 | 0.66 | E |
| Jackson Rd (SR-16) - Grant Line Rd to Kiefer Blvd | E | 2 | Rural Hwy | 22,900 | 14,300 | 0.62 | E | 15,800 | 0.69 | E |
| Mather Blvd - Douglas Rd to Base | D | 2 | Arterial - M | 18,000 | 6,300 | 0.35 | A | 12,100 | 0.67 | B |

Notes: LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial - M = Arterial with moderate access control; Rural Hwy = Rural 2-lane highway, Rural S = Rural 2-lane road with 24'-36' of pavement and paved shoulders; Rural NS = rural 2-lane road with 24'-36' of pavement and no shoulders. Bold indicates deficiency. Shaded areas indicate impact. Source: DKS Associates 2010

CALTRANS Freeway Mainline

Table 21 summarizes a.m. and p.m. peak hour mainline operating conditions under Baseline conditions with the addition of the Preferred Alternative A. The increase in traffic due to the project results in less-than-significant impacts at the subject mainline segments.

CALTRANS Freeway Merge, diverge, and weaving areas

Table 22 summarizes a.m. and p.m. peak hour merge, diverge, and weaving area operating conditions under Baseline conditions with the addition of the Preferred Alternative A. The following roadway areas are considered to have a significant impact due to the project:

- Eastbound diverge to Mather Field Road Off-Ramp – There is an increase in traffic volume in this freeway area already operating at LOS “F.”

**TABLE 21
BASELINE WITH PROJECT LEVEL OF SERVICE - CALTRANS FREEWAY MAINLINE SEGMENTS**

| Segment | Baseline No Project | | | | Baseline Plus Project | | | |
|------------------------------------------|---------------------|-------|-----------|--------------------|-----------------------|-----------|--------------------|--------------|
| | Lanes | Volum | es Densit | y ² LOS | ³ Volum | es Densit | y ² LOS | ³ |
| AM Peak Hour | | | | | | | | |
| US-50 EB Watt Ave to Bradshaw Rd | 4 | 7,710 | 38 | E | 8,380 | 47 | E | |
| US-50 EB Bradshaw Rd to Mather Field Rd | 4 | 7,190 | 34 | D | 7,510 | 36 | D | |
| US-50 EB Mather Field Rd to Zinfandel Dr | 5 | 6,340 | 26 | D | 6,470 | 26 | D | |
| US-50 EB Zinfandel Dr to Sunrise Blvd | 4 | 4,850 | 21 | C | 5,110 | 22 | C | |
| US-50 EB Sunrise Blvd to Hazel Ave | 4 | 4,260 | 24 | C | 4,370 | 24 | C | |
| US-50 WB Hazel Ave to Sunrise Blvd | 4 | 6,040 | 36 | E | 6,350 | 40 | E | |
| US-50 WB Sunrise Blvd to Zinfandel Dr | 4 | 7,820 | 40 | E | 8,120 | 43 | E | |
| US-50 WB Zinfandel Dr to Mather Field Rd | 5 | 7,350 | 27 | D | 7,470 | 28 | D | |
| US-50 WB Mather Field Rd to Bradshaw Rd | 4 | 7,360 | 35 | D | 7,110 | 33 | D | |
| US-50 WB Bradshaw Rd to Watt Ave | 4 | 7,910 | 41 | E | 7,800 | 39 | E | |
| PM Peak Hour | | | | | | | | |
| US-50 EB Watt Ave to Bradshaw Rd | 4 | 7,640 | 38 | E | 7,720 | 38 | E | |
| US-50 EB Bradshaw Rd to Mather Field Rd | 4 | 6,980 | 32 | D | 6,950 | 32 | D | |
| US-50 EB Mather Field Rd to Zinfandel Dr | 5 | 7,170 | 27 | D | 7,380 | 28 | D | |
| US-50 EB Zinfandel Dr to Sunrise Blvd | 4 | 7,040 | 33 | D | 7,580 | 37 | D | |
| US-50 EB Sunrise Blvd to Hazel Ave | 4 | 6,230 | 37 | E | 6,550 | 41 | E | |
| US-50 WB Hazel Ave to Sunrise Blvd | 4 | 5,070 | 28 | D | 5,200 | 29 | D | |
| US-50 WB Sunrise Blvd to Zinfandel Dr | 4 | 4,930 | 22 | C | 5,240 | 23 | C | |
| US-50 WB Zinfandel Dr to Mather Field Rd | 5 | 6,240 | 24 | C | 6,550 | 26 | C | |
| US-50 WB Mather Field Rd to Bradshaw Rd | 4 | 6,770 | 31 | D | 7,260 | 34 | D | |
| US-50 WB Bradshaw Rd to Watt Ave | 4 | 7,600 | 37 | E | 8,320 | 46 | E | |

¹ Based on Freeway Performance Measurement System data from April and May 2008

² Density given as passenger cars per mile per lane

³ LOS = Level of Service

**TABLE 22
BASELINE WITH PROJECT LOS - CALTRANS FREEWAY MERGE/DIVERGE WEAVING AREAS**

| Segment | Ramp Type | Peak Hour Ramp Volumes | | Peak Hour Ramp Density/LOS | | | |
|----------------------------|-------------|------------------------|-------|----------------------------|-----|---------|-----|
| | | Baseline Plus Project | | Baseline Plus Project | | | |
| | | AM | PM | Density | LOS | Density | LOS |
| | | | | | | | |
| US-50 Eastbound | | | | | | | |
| Bradshaw Road Off-Ramp | | 2,015 | 1,731 | 24.2 | C | 17.0 | B |
| Bradshaw Road On-Ramp | Loop | 475 | 663 | 20.9 | C | 17.6 | B |
| Bradshaw Road On-Ramp | Slip | 842 | 747 | 29.3 | D | 23.7 | C |
| Mather Field Road Off-Ramp | | 1,704 | 1,197 | 45.2 F | | 35.3 | E |
| Mather Field Road On-Ramp | Loop | 194 | 147 | 19.1 | B | 16.3 | B |
| Zinfandel Drive On-Ramp | Loop | 86 | 502 | 16.1 | B | 18.8 | B |
| Zinfandel Drive On-Ramp | Slip | 547 | 1,210 | 17.1 | B | 20.0 | C |
| Sunrise Boulevard On-Ramp | Loop & Slip | 966 | 923 | 23.8 | C | 34.0 | D |
| US-50 Westbound | | | | | | | |
| Zinfandel Drive Off-Ramp | | 1,262 | 1,068 | 33.8 | D | 34.0 | D |
| Zinfandel Drive On-Ramp | Slip | 307 | 992 | 18.2 | B | 17.4 | B |
| Mather Field Road On-Ramp | Loop & Slip | 888 | 1,594 | 28.8 | D | 29.5 | D |
| Bradshaw Road Off-Ramp | | 1,502 | 1,718 | 16.7 | B | 19.8 | B |
| Bradshaw Road On-Ramp | Loop | 1,300 | 1,284 | 19.5 | B | 20.0 | B |
| Bradshaw Road On-Ramp | Slip | 1,300 | 1,284 | 19.5 | B | 20.0 | B |

¹ Based on Freeway Performance Measurement System data from April and May 2008

² Density given as passenger cars per mile per lane

³ LOS = Level of Service

Bold indicates deficiency. Shaded areas indicate impact.
DKS Associates 2010

Bicycle and Pedestrian Impacts

The proposed project is not expected to eliminate or adversely affect bikeways and / or pedestrian facilities. The proposed project is not expected to interfere with the implementation of planned bikeways or pedestrian facilities.

Transit Impacts

The Transportation Plan for Sacramento County’s General Plan Update allows for expansion of transit service and includes implementation of “high quality transit” in three key corridors that would operate at LOS “F” conditions in 2032. High quality transit, or bus rapid transit, would operate along Watt Avenue, Sunrise Boulevard, and Florin Road. The Transportation Plan in the County’s General Plan Update includes a robust transit system to both serve new growth areas and better serve existing urban areas. While the proposed project would result in an increase in the number of transit trips compared to Baseline Conditions, new development within the County

is typically required to provide transit facilities and coordinate with local transit agencies to meet this increase in demand. The impact of the proposed project on transit facilities and operations is considered less-than-significant.

Baseline Plus Preferred Alternative Scenario Mitigation Measures

Potential mitigation measures for Baseline plus preferred alternative project impacts identified at study area intersections are described below.

Sacramento County Intersections

- Bradshaw Road and Jackson Road (SR-16) – The identified mitigation measure is to add a second eastbound left turn lane. This mitigation would improve the intersection to LOS “E,” thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 4%.
- Eagles Nest Road and Jackson Road (SR-16) – With the proposed project, this intersection meets peak hour signal warrants. Therefore the identified mitigation is to construct a new traffic signal and provide a separate left turn lane and a shared through-right lane at all approaches. This mitigation would improve the intersection to LOS “C” or better, thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 64%, p.m. peak hour: 50%.
- Grant Line Road and White Rock Road – The following mitigation measure may not be necessary because the White Rock Road widening project currently underway would construct a signal at this location. Information relating to this public project is available on the Sacramento County website. If a signal is not constructed at this location before the Mather Specific Plan, the following mitigation shall apply:
 - With or without the proposed project, this intersection meets peak hour signal warrants. Therefore the identified mitigation is to construct a new traffic signal and provide a separate turn and through lane at all approaches. This mitigation would improve the intersection to LOS “A,” thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: p.m. peak hour: 10%.

City of Rancho Cordova Intersections

- Bradshaw Road and Old Placerville Road – Addition of an exclusive overlap right turn phase at the northbound and westbound approaches would improve the intersection to LOS “D” or better. However, in general, overlapping is not recommended because it requires prohibition of U-turn movements which are opposed by businesses. The identified mitigation measure is to add a second westbound right turn lane. This mitigation would improve the intersection to LOS “D” during the a.m. peak hour and to LOS “C” during the p.m. peak hour, thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 7%, p.m. peak hour: 8%.

- Mather Field Road and Rockingham Drive – The addition of a second exclusive eastbound right turn lane would improve the intersection to LOS “D” in the a.m. peak hour but not in the p.m. peak hour. To mitigate the p.m. peak hour would require the addition of a third eastbound left turn lane and a fourth northbound through lane. Since feasible measures are not available to mitigate peak hour impacts, the impact remains significant and unavoidable.
- Sunrise Boulevard and Jackson Road (SR-16) – The identified mitigation measure is to widen Sunrise Boulevard to provide an exclusive northbound right turn lane and restripe the northbound approach. This mitigation would improve the intersection to LOS “E” or better, thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 5%, p.m. peak hour: 10%.
- Grant Line Road and Douglas Road – With the proposed project, this intersection meets peak hour signal warrants. Therefore the identified mitigation is to construct a new traffic signal and provide separate turn and through lanes at all approaches. This mitigation would improve the intersection to LOS “A,” thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 22%.
- Zinfandel Drive and Douglas Road – With the proposed project, this intersection meets peak hour signal warrants. Therefore the identified mitigation is to construct a new traffic signal and provide a separate left turn lane, two through lanes, and an exclusive right turn lane in the southbound and westbound approaches. The northbound and eastbound approaches would need dual left turn lanes, two through lanes, and an exclusive right turn lane. This mitigation would improve the intersection to LOS “D” or better, thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 74%, p.m. peak hour: 75%.
- Zinfandel Drive and Chrysanthy Boulevard – With the proposed project, this intersection meets peak hour signal warrants. Therefore the identified mitigation is to construct a new traffic signal and provide separate turn and through lanes at all approaches. This mitigation would improve the intersection to LOS “D” or better, thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 100%, p.m. peak hour: 100%.
- Mather Boulevard and Douglas Road – With the proposed project, this intersection meets peak hour signal warrants. Therefore the identified mitigation is to construct a new traffic signal and provide separate turn and through lanes in the northbound and eastbound approaches. The southbound approach would need dual left turn lanes and a shared through-right lane. The westbound approach would need separate turn and

through lanes with an overlap right turn phase in the traffic signal operations. This mitigation would improve the intersection to LOS “D,” thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 57%, p.m. peak hour: 59%.

City of Rancho Cordova Roadway Segments

- Bradshaw Rd - US-50 to Old Placerville Rd – The existing roadway is already improved to 6 lanes and no further widening is feasible because further widening would be beyond the Sacramento County General Plan designation. This is a significant and unavoidable impact.
- Mather Field Rd - US-50 to Old Placerville Rd – The existing roadway is already improved to 6 lanes and no further widening is feasible because further widening would be beyond the City of Rancho Cordova General Plan designation. This is a significant and unavoidable impact
- Zinfandel Dr - US-50 to White Rock Rd – The existing roadway is already improved to 6 lanes and no further widening is feasible because further widening would be beyond the City of Rancho Cordova General Plan designation. This is a significant and unavoidable impact.
- Zinfandel Dr - White Rock Rd to International – The existing roadway is already improved to 6 lanes and no further widening is feasible because further widening would be beyond the City of Rancho Cordova General Plan designation. This is a significant and unavoidable impact.
- Sunrise Blvd - Kiefer Blvd to Jackson Rd (SR-16) – Widen to a four lane arterial as identified in the County of Sacramento and City of Rancho Cordova Improvement Standards and to the satisfaction of the Sacramento County Department of Transportation and City of Rancho Cordova Public Works Department. This would improve operating conditions to LOS “A,” reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is 12%.
- Old Placerville Rd - Bradshaw Rd to Routier Rd – Widen to a four lane arterial as identified in the County of Sacramento and City of Rancho Cordova Improvement Standards and to the satisfaction of the Sacramento County Department of Transportation and City of Rancho Cordova Public Works Department. This would improve operating conditions to LOS “B,” reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is 21%.
- Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd – Widen to a four lane arterial as identified in the County of Sacramento and City of Rancho Cordova Improvement Standards and to the satisfaction of the Sacramento County Department of Transportation

and City of Rancho Cordova Public Works Department. This would improve operating conditions to LOS “A,” reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is 13%.

Caltrans Freeway Merge, Diverge, and Weaving Areas

- Eastbound diverge to Mather Field Road Off-Ramp – Add an auxiliary lane to allow a double lane off ramp. This would reduce the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is 15%.

Cumulative Scenario Analysis

The cumulative scenarios are:

- Cumulative Conditions
- Cumulative Conditions Plus the Preferred Alternative A
- Cumulative Conditions Plus Alternative B
- Cumulative Conditions Plus Alternative C

For determination of impact significance, conditions associated with the Plus Preferred Alternative A are compared to the Cumulative No Project scenario.

Methodology

Future traffic volume forecasts were developed through utilization of SACOG’s regional SACMET travel model. The SACMET model version used in these analyses was developed for studies of Cordova Hills in eastern Sacramento County. The regional travel model encompasses the entire Sacramento region, and forecasts peak hour and daily traffic volumes based upon projections of future land use and transportation networks throughout the region.

In addition to the background year 2035 traffic, the No Project scenarios include the trip generation of the proposed quarries proposed in eastern Sacramento County.

Roadway Network

Figure 7 illustrates the future roadway network.

Cumulative Scenario Traffic Volumes

Peak hour traffic volumes of the cumulative scenarios are illustrated in **Figures 8 and 9**. Intersection LOS for the cumulative scenarios are summarized in **Table 23**. Daily segment traffic volumes of the cumulative scenarios are summarized in **Table 24**.

Cumulative No Project Operating Conditions

Sacramento County Intersections

Table 23 summarizes a.m. and p.m. peak hour operating conditions at the study area intersections. During the a.m. and p.m. peak hours, all of the Sacramento County intersections meet the Level of Service (LOS) "E" standard within the Urban Service Boundary and the Level of Service (LOS) "D" standard outside the boundary with the exception of the following intersections:

- Bradshaw Road and Kiefer Boulevard - LOS "F"
- Bradshaw Road and Jackson Road - LOS "F"

City of Rancho Cordova Intersections

Table 23 summarizes a.m. and p.m. peak hour operating conditions at the study area intersections. During the a.m. and p.m. peak hours, all of the City of Rancho Cordova intersections meet the Level of Service (LOS) "D" standard with the exception of the following intersections:

- Bradshaw Road and Old Placerville Road – LOS "F"
- Routier Road and Old Placerville Road - LOS F"
- Mather Field Road and Rockingham Drive – LOS "F"
- Zinfandel Drive and White Rock Road – LOS "F"
- Zinfandel Drive and International Road – LOS "F"
- Sunrise Boulevard and Douglas Road – LOS "F"
- Sunrise Boulevard and Jackson Road – LOS "E"
- Grant Line Road and Douglas Road – LOS "E"
- Zinfandel Drive and Douglas Road – LOS "F"
- Sunrise Boulevard Chrysanthy Boulevard – LOS "F"
- Rancho Cordova Parkway and White Rock Road – LOS "F"
- Mather Boulevard and Douglas Road – LOS "F"

Caltrans State Highway Intersections

Table 23 summarizes a.m. and p.m. peak hour operating conditions at the study area intersections. During the a.m. and p.m. peak hours, all of the Caltrans State Highway intersections meet the Level of Service (LOS) "E" standard with the exception of the following intersection:

- Zinfandel Drive and US-50 Eastbound Off-Ramp – LOS "F".

Sacramento County Roadway Segments

Table 24 summarizes roadway operating conditions. All of the Sacramento County roadway segments meet the Level of Service (LOS) "E" standard within the Urban Service Boundary and the Level of Service (LOS) "D" standard outside the boundary, with the following exception:

- Bradshaw Rd - Old Placerville Rd to Kiefer Blvd – LOS "F"
- Bradshaw Rd - Jackson Rd (SR-16) to Elder Creek Rd – LOS "F"
- Happy Ln - Old Placerville Rd to Kiefer Blvd – LOS "F"
- Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd – LOS "F"
- Jackson Rd (SR-16) - Bradshaw Rd to Vineyard Rd – LOS "F"

City of Rancho Cordova Roadway Segments

Table 24 summarizes roadway operating conditions. All of the City of Rancho Cordova roadway segments meet the Level of Service (LOS) "D" standard with the following exceptions:

- Bradshaw Rd - US-50 to Old Placerville Rd – LOS "F"
- Mather Field Rd - US-50 to Old Placerville Rd – LOS "F"
- Zinfandel Dr - US-50 to White Rock Rd – LOS "F"
- Zinfandel Dr - White Rock Rd to International Dr – LOS "F"
- Sunrise Blvd - Folsom Blvd to White Rock Rd – LOS "E"
- Sunrise Blvd - White Rock Rd to Douglas Rd – LOS "E"
- Sunrise Blvd - Douglas Rd to Kiefer Blvd – LOS "E"
- Grant Line Rd - White Rock Rd to Douglas Rd – LOS "F"
- International Drive - Zinfandel Rd to Sunrise Blvd – LOS "F"
- Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd – LOS "E"

Caltrans Freeway Mainline

Level of service analyses were also conducted for the study area freeway segments based upon a.m. and p.m. peak hour traffic volumes, and number of both mixed flow and full auxiliary lanes. **Table 25** summarizes the freeway levels of service. All of the Caltrans freeway segments meet the LOS “E” standard with the following exceptions:

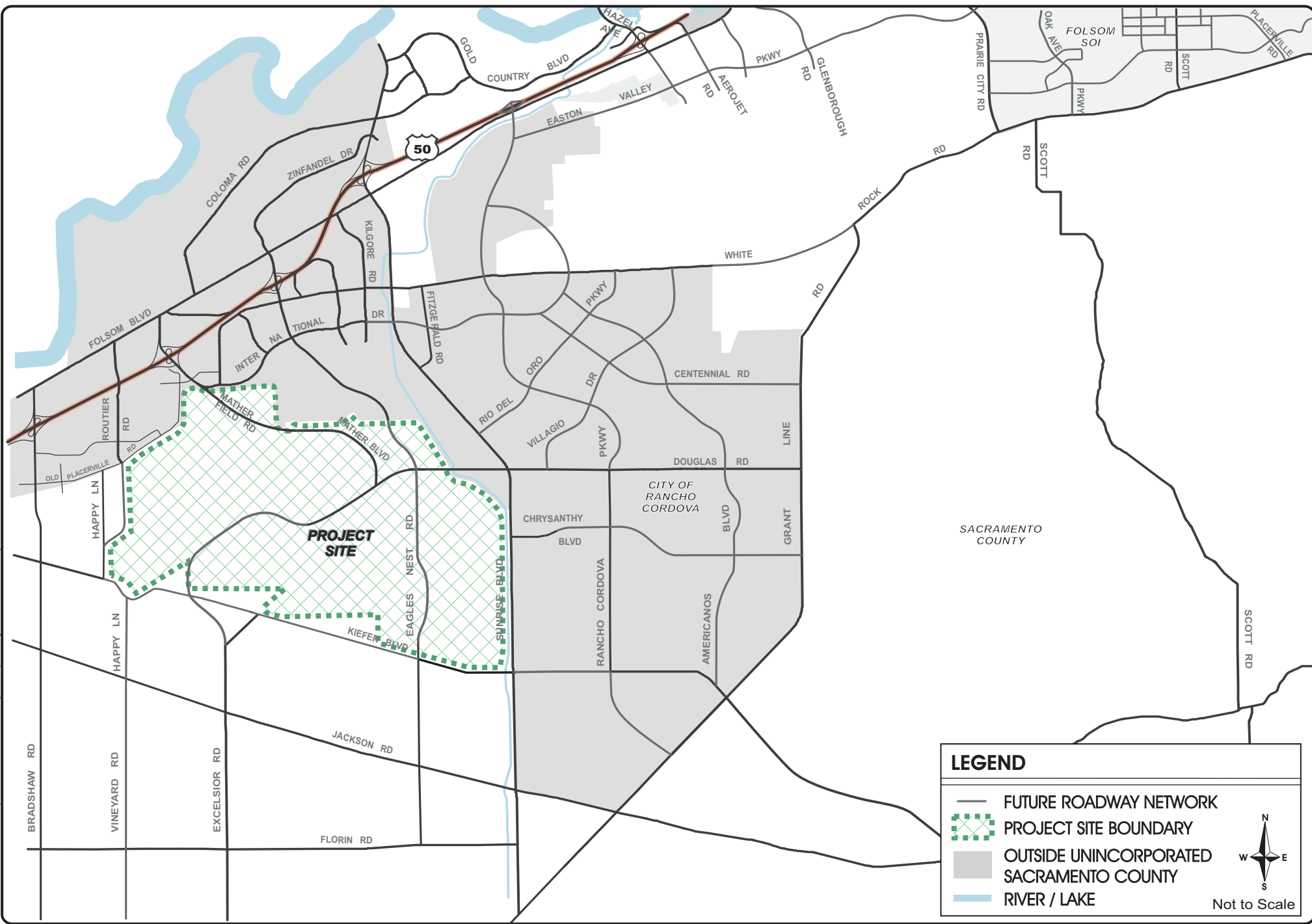
- US-50 EB Watt Ave to Bradshaw Rd – LOS “F”
- US-50 WB Hazel Ave to Rancho Cordova Prky – LOS “F”
- US-50 WB Rancho Cordova Prky to Sunrise Blvd – LOS “F”
- US-50 WB Sunrise Blvd to Zinfandel Dr – LOS “F”
- US-50 WB Bradshaw Rd to Watt Ave – LOS “F”
- US-50 EB Rancho Cordova Prky to Hazel Ave – LOS “F”
- US-50 WB Bradshaw Rd to Watt Ave – LOS “F”

Caltrans Freeway Merge, Diverge, and Weaving Areas

Level of service analyses were also conducted for the study area freeway merge, diverge, and weaving areas. **Table 26** summarizes the freeway levels of service. All of the Caltrans freeway merge, diverge, and weaving areas meet the LOS “E” standard with the following exceptions:

- US-50 EB Bradshaw Road Off-Ramp – LOS “F”
- US-50 EB Mather Field Road Off-Ramp – LOS “F”
- US 50 WB Mather Field Road On-Ramp – LOS “F”

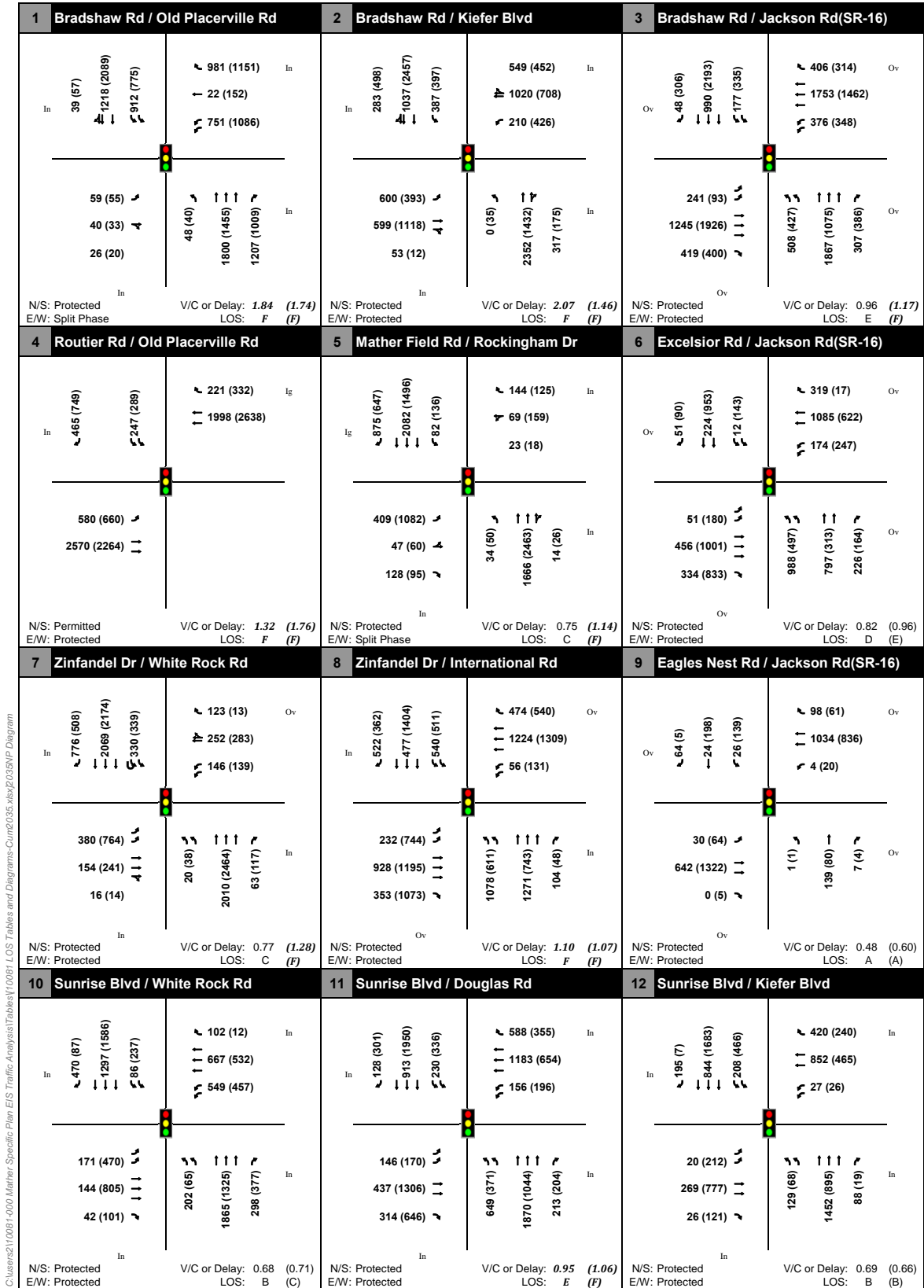
PI2010110081-000 Mather Specific Plan EIS Traffic Analysis\Graphics\Figure 7-Future Roadways.cdr



LEGEND

- FUTURE ROADWAY NETWORK
- PROJECT SITE BOUNDARY
- OUTSIDE UNINCORPORATED SACRAMENTO COUNTY
- RIVER / LAKE

Not to Scale



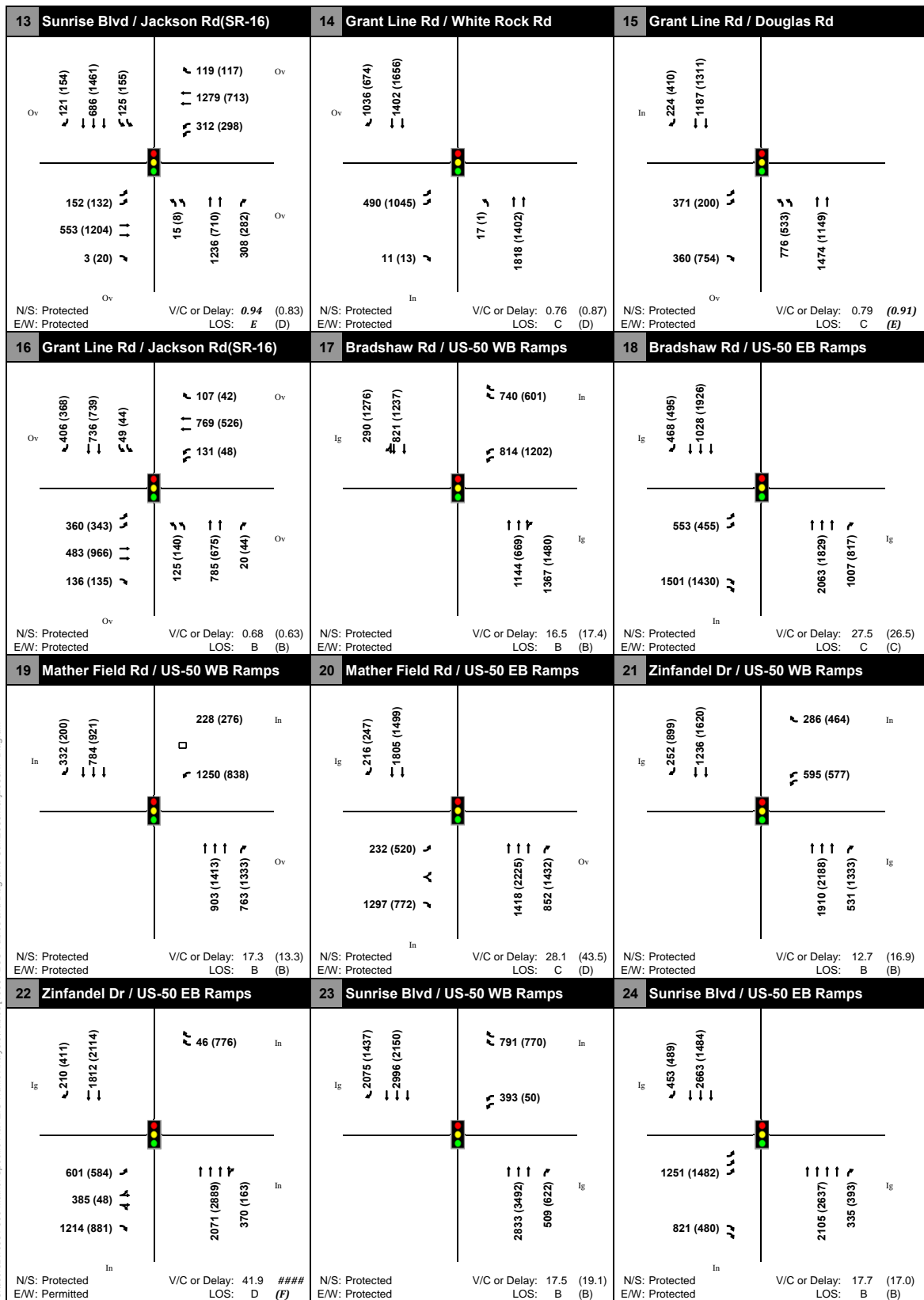
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Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap phase assumed for Right-turn movement in analysis.



FIGURE 8

**DRAFT YEAR 2035 CUMULATIVE
 NO PROJECT CONDITIONS
 INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM
 MATHER SPECIFIC PLAN**



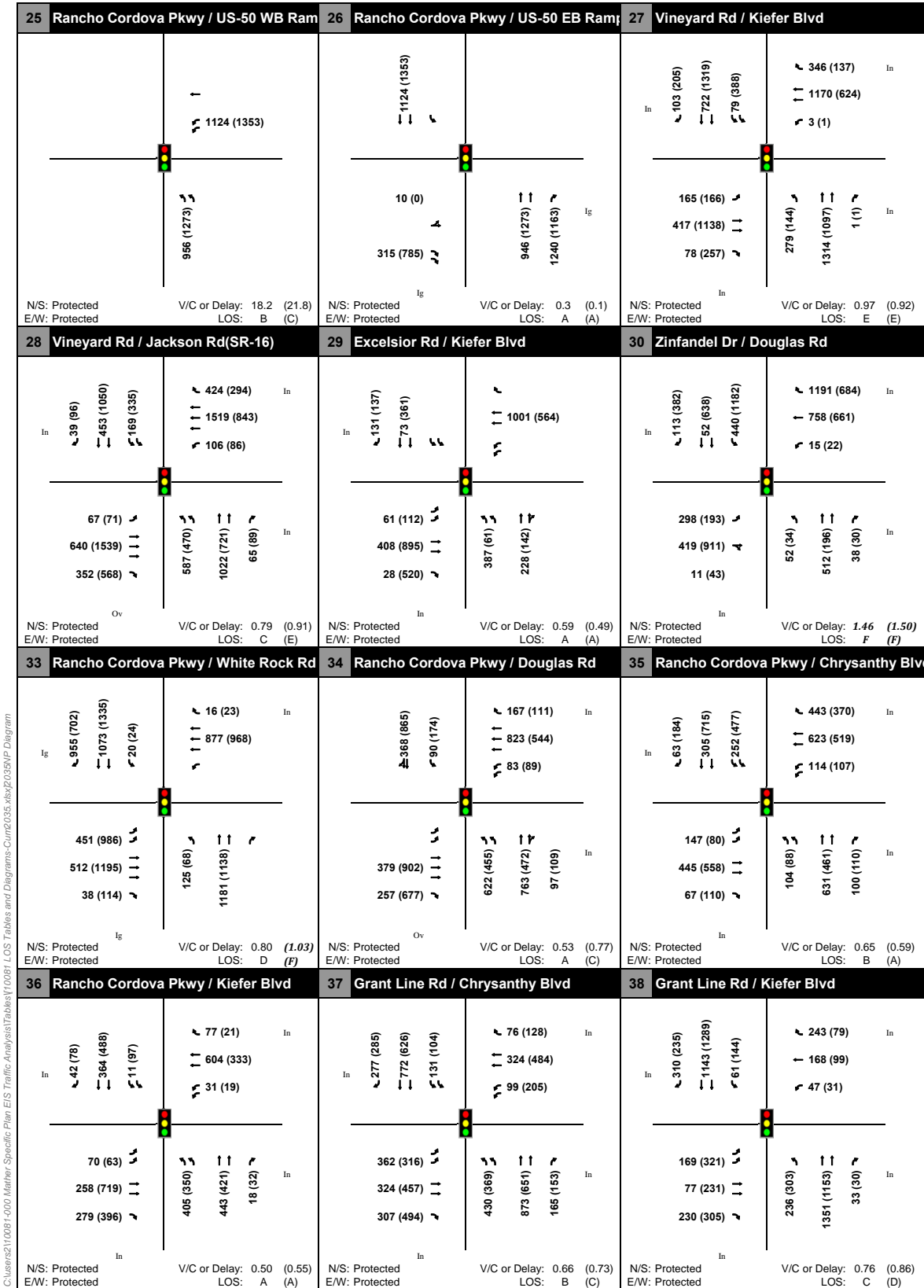
Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



FIGURE 8

**DRAFT YEAR 2035 CUMULATIVE
 NO PROJECT CONDITIONS
 INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM**

MATHER SPECIFIC PLAN



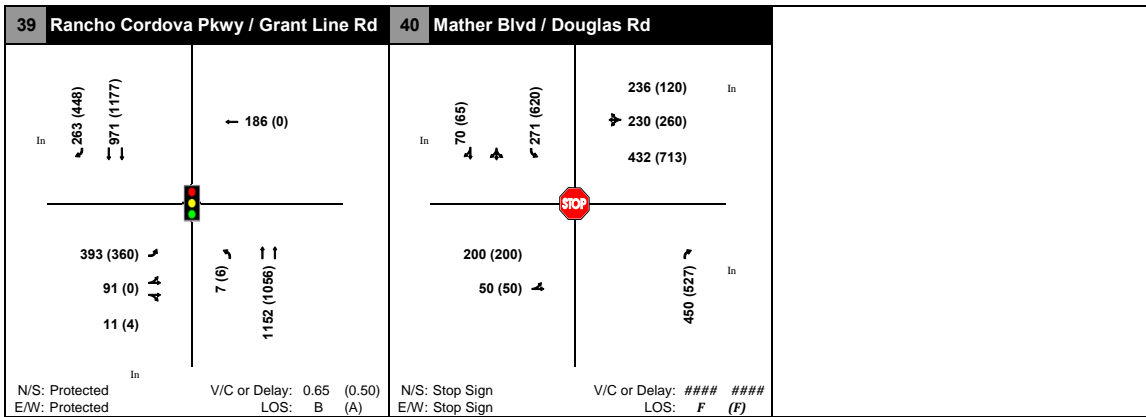
C:\Users\110081-000\Mather Specific Plan EIS Traffic Analysis\Tables\10081 LOS Tables and Diagrams\Cum2035.xlsx\2035NP Diagram

Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



FIGURE 8

**DRAFT YEAR 2035 CUMULATIVE
 NO PROJECT CONDITIONS
 INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM
 MATHER SPECIFIC PLAN**



C:\users\2110091-000\Mather Specific Plan EIS Traffic Analysis\Tables\10081 LOS Tables and Diagrams\Cum2035.xls\F2035IP Diagram

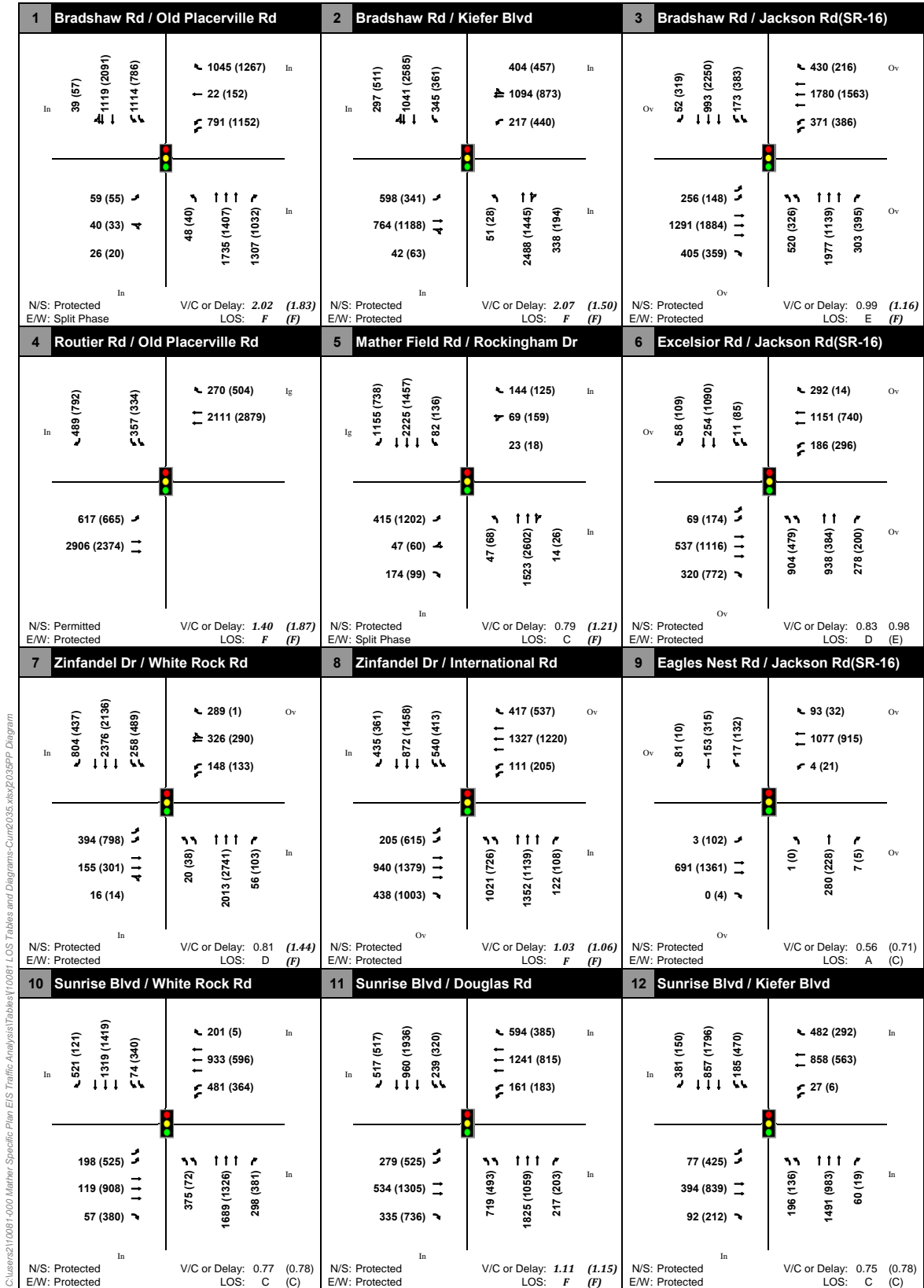
Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



FIGURE 8

**DRAFT YEAR 2035 CUMULATIVE
 NO PROJECT CONDITIONS
 INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM**

MATHER SPECIFIC PLAN

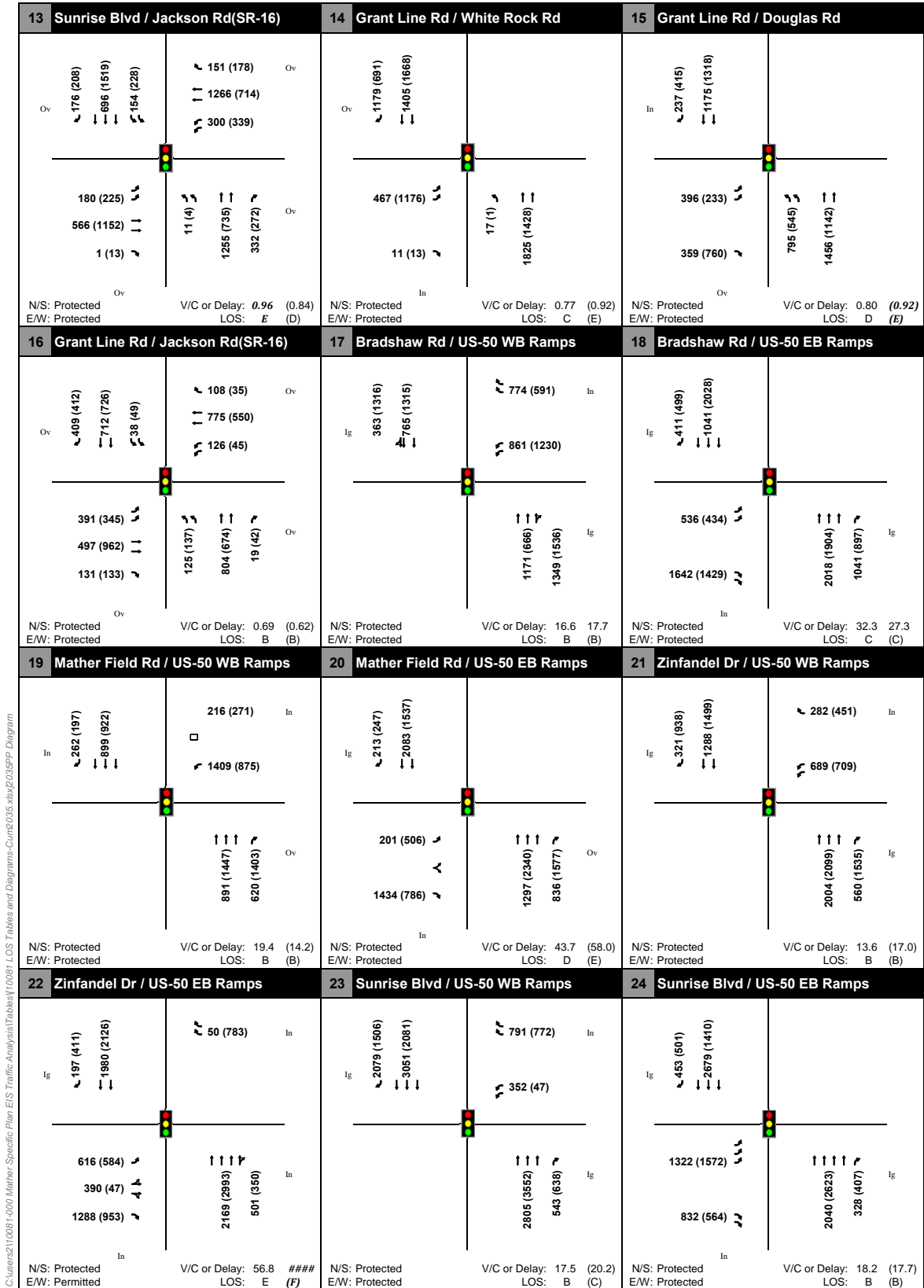


C:\users\2110091-000\Mather Specific Plan EIS Traffic Analysis\Tables\10081 LOS Tables and Diagrams\Cum2035.xlsx\2035PP Diagram

Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



FIGURE 9
DRAFT YEAR 2035 CUMULATIVE PLUS PROJECT CONDITIONS INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM
 MATHER SPECIFIC PLAN



C:\Users\2110091-000\Mather Specific Plan EIS Traffic Analysis\Tables\10081 LOS Tables and Diagrams\Cum2035.xlsx\2035PP Diagram

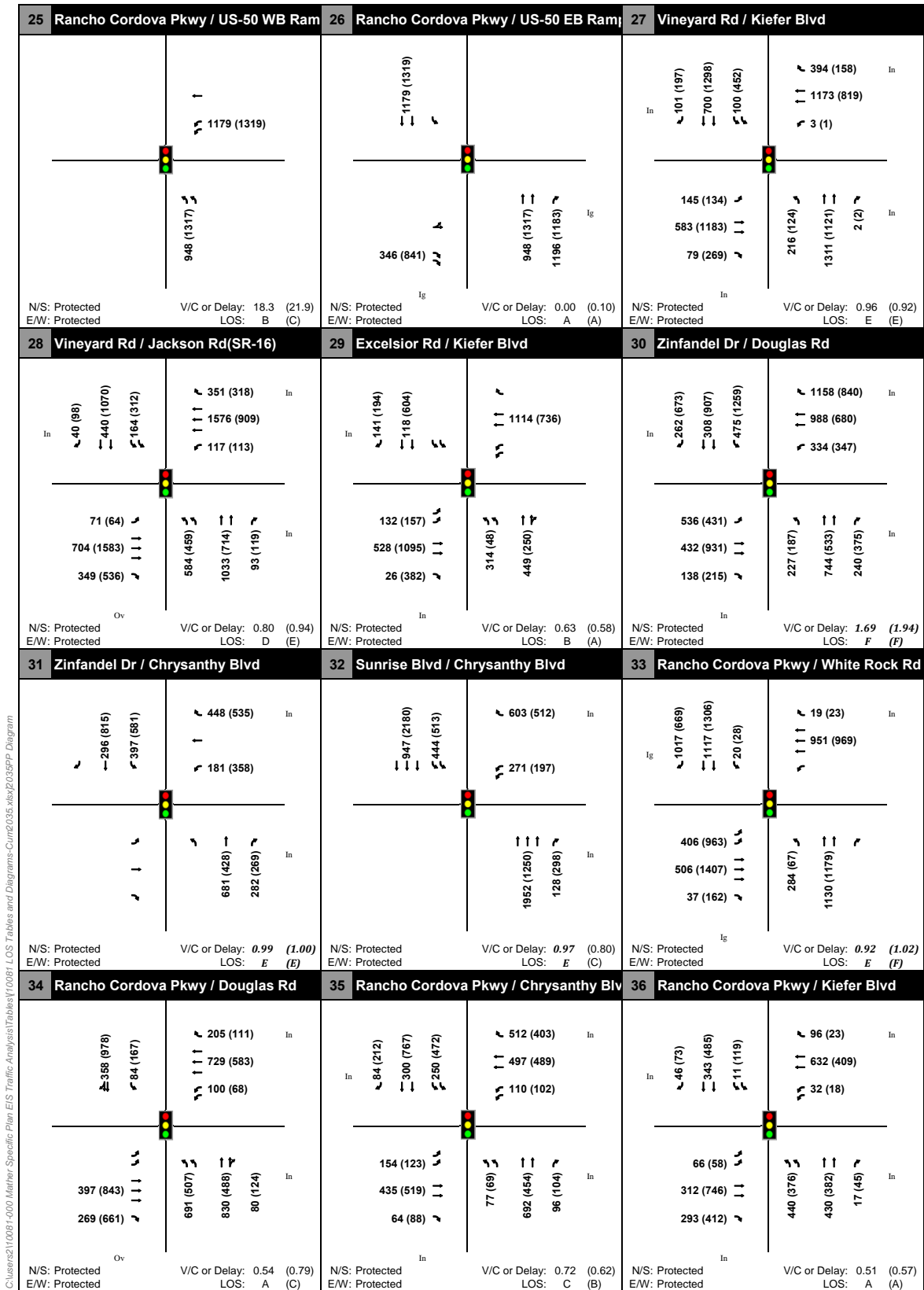
Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



FIGURE 9

DRAFT YEAR 2035 CUMULATIVE PLUS PROJECT CONDITIONS INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM

MATHER SPECIFIC PLAN



C:\Users\2110091-000\Mather Specific Plan EIS Traffic Analysis\Tables\10091 LOS Tables and Diagrams\Cum2035.xlsx\2035PP Diagram

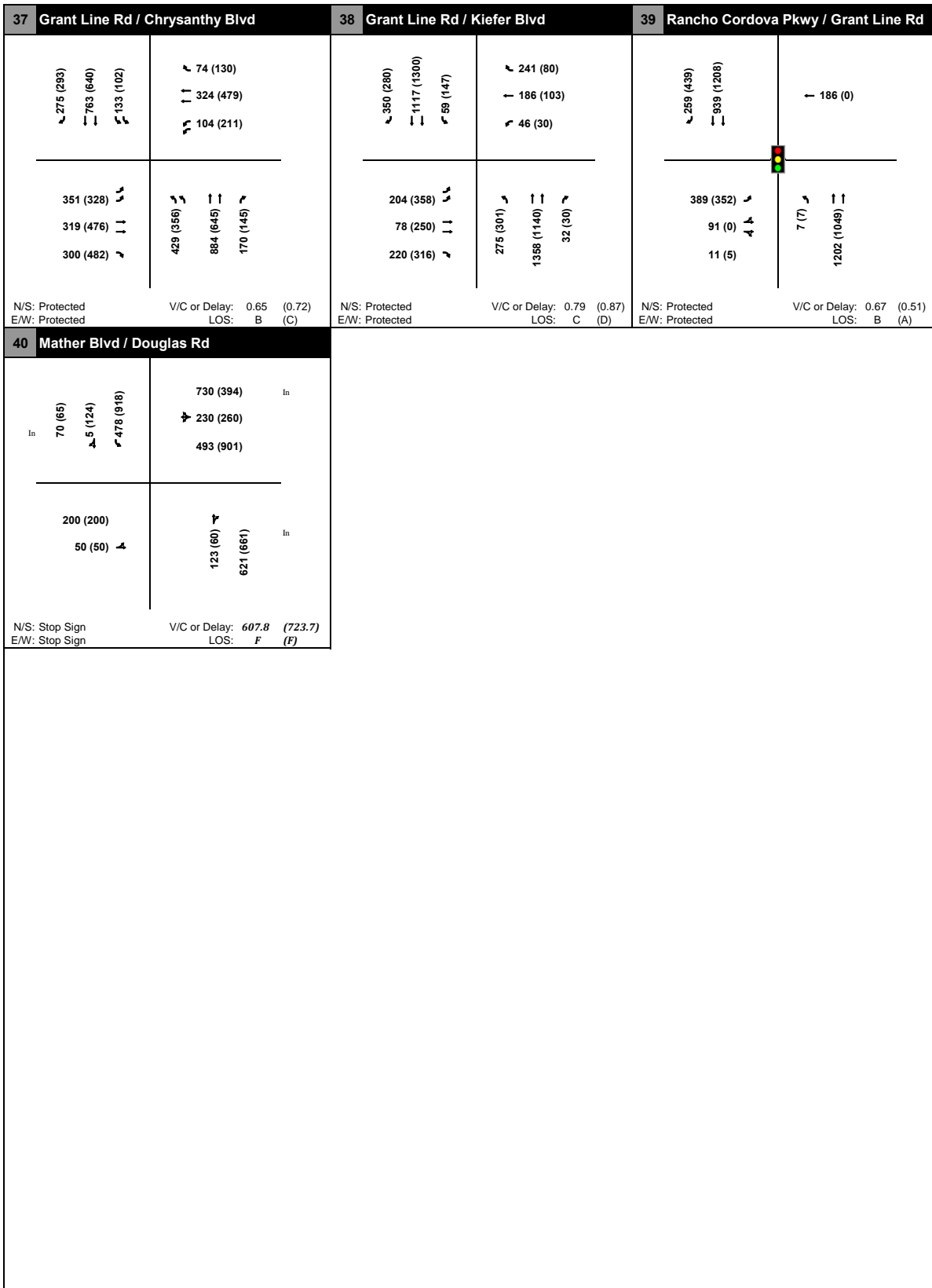
Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.



FIGURE 9

DRAFT YEAR 2035 CUMULATIVE PLUS PROJECT CONDITIONS INTERSECTION VOLUMES, GEOMETRY, LOS DIAGRAM

MATHER SPECIFIC PLAN



C:\users\2110091-000\Mather Specific Plan EIS Traffic Analysis\Tables\10081 LOS Tables and Diagrams-Cum2035.xlsx\2035PP Diagram

Notes: AM (PM) Peak Hour Results
 "In"=Include, "Ig"=Ignore, and "Ov"=Overlap assumed for Right-turn movement in analysis.

Cumulative Scenario Impacts

Sacramento County Intersections

Table 23 summarizes a.m. and p.m. peak hour intersection operating conditions at the study area intersections under Cumulative conditions with the addition of the Preferred Alternative A. The increase in traffic due to the project results in less-than-significant impacts at the subject intersections.

City of Rancho Cordova Intersections

Table 23 summarizes a.m. and p.m. peak hour intersection operating conditions at the study area intersections under Cumulative conditions with the addition of the preferred alternative. The following intersections are considered to have a significant impact due to the project:

- Bradshaw Road and Old Placerville Road – Operating conditions would further degrade at an unacceptable LOS “F” in the a.m. and p.m. peak periods, with an increase in volume-to-capacity (v/c) ratio of more than 0.05.
- Routier Road and Old Placerville – Operating conditions would further degrade at an unacceptable LOS “F” in the a.m. and p.m. peak periods, with an increase in volume-to-capacity (v/c) ratio of more than 0.05.
- Mather Field Road and Rockingham Drive – Operating conditions would further degrade at an unacceptable LOS “F” in the p.m. peak hour, with an increase in volume-to-capacity (v/c) ratio of more than 0.05.
- Zinfandel Drive and White Rock Road – Operating conditions would further degrade at an unacceptable LOS “F” in the p.m. peak hour, with an increase in volume-to-capacity (v/c) ratio of more than 0.05.
- Sunrise Boulevard and Douglas Road – Operating conditions already at an unacceptable LOS “E” would degrade to an unacceptable LOS “F” in the a.m. peak hour and would further degrade at an unacceptable LOS “F” p.m. peak hour. During both peak periods, the increase in volume-to-capacity (v/c) ratio is more than 0.05.
- Zinfandel Drive and Douglas Road – Operating conditions would further degrade at an unacceptable LOS “F” in the a.m. and p.m. peak periods, with an increase in volume-to-capacity (v/c) ratio of more than 0.05.
- Zinfandel Drive and Chrysanthy Boulevard – Operating conditions would operate at an unacceptable LOS “E” or “F” in the a.m. and p.m. peak periods.
- Rancho Cordova Boulevard and White Rock Road – Operating conditions would degrade from an acceptable LOS “D” to an unacceptable LOS “F” in the a.m. peak hour, with an increase in volume-to-capacity (v/c) ratio of more than 0.05.

- Mather Boulevard and Douglas Road – Operating conditions would further degrade at an unacceptable LOS “F” in the a.m. and p.m. peak periods, with an increase in volume-to-capacity (v/c) ratio of more than 0.05.

CALTRANS State Highway Intersections

Table 23 summarizes a.m. and p.m. peak hour intersection operating conditions at the study area intersections under Cumulative conditions with the addition of the Preferred Alternative A. The following intersection is considered to have a significant impact due to the project:

- Zinfandel Drive and US-50 Eastbound Ramps – Operating conditions would further degrade at an unacceptable LOS “F” in the p.m. peak hour, with an increase in volume-to-capacity (v/c) ratio of more than 0.05.

County of Sacramento Roadway Segments

Table 24 summarizes roadway operating conditions under Cumulative conditions with the addition of the Preferred Alternative A. No County of Sacramento roadway segments are considered to have a significant impact due to the project.

City of Rancho Cordova Roadway Segments

Table 24 summarizes roadway operating conditions under Cumulative conditions with the addition of the Preferred Alternative A. The following roadway segments are considered to have a significant impact due to the project:

- Mather Field Rd - US-50 to Old Placerville Rd – Operating conditions already at an unacceptable LOS “F” degrade, with an increase in V/C ratio of more than 0.05.
- Zinfandel Dr - US-50 to White Rock Rd – Operating conditions already at an unacceptable LOS “F” degrade, with an increase in V/C ratio of more than 0.05.
- Zinfandel Dr - White Rock Rd to International Dr – Operating conditions already at an unacceptable LOS “F” degrade, with an increase in V/C ratio of more than 0.05.”
- Sunrise Blvd - White Rock Rd to Douglas Rd – Operating conditions already at an unacceptable LOS “E” degrade, with an increase in V/C ratio of more than 0.05.
- Sunrise Blvd - Douglas Rd to Kiefer Blvd – Operating conditions already at an unacceptable LOS “E” degrade, with an increase in V/C ratio of more than 0.05.
- Old Placerville Rd - Bradshaw Rd to Routier Rd - Sunrise Blvd to Grant Line Rd – Operations degrade from an acceptable LOS “D” to LOS “E.”
- International Drive - Zinfandel Dr to Sunrise Blvd – Operating conditions already at an unacceptable LOS “F” degrade, with an increase in V/C ratio of more than 0.05.

**TABLE 23
CUMULATIVE WITH PROJECT AM/PM PEAK HOUR INTERSECTION OPERATING CONDITIONS -
SACRAMENTO COUNTY, CITY OF RANCHO CORDOVA**

| Intersection | | Level of Service Methodology | Service (LOS) | No Project Conditions | | | | Plus Project Conditions | | | | |
|--------------------------------|--------------------|------------------------------|-----------------|-----------------------|---------|------------------|---------|-------------------------|----------|------------------|----------|------|
| | | | | AM Peak Hr | | PM Peak Hr | | AM Peak Hr | | PM Peak Hr | | |
| North-South Street | East-West Street | Analysis Methodology | Policy Standard | V/C or Delay [1] | LOS | V/C or Delay [1] | LOS | V/C or Delay [1] | LOS | V/C or Delay [1] | LOS | |
| Sacramento County | | | | | | | | | | | | |
| Bradshaw Rd | Kiefer Blvd | Circular Planning | 212 | E | 2.07 F | | 1.46 F | | 2.07 F | | 1.50 F | |
| Bradshaw Rd | Jackson Rd(SR-16) | Circular Planning | 212 | E | 0.96 | E | 1.17 F | | 0.99 | E | 1.16 F | |
| Excelsior Rd | Jackson Rd(SR-16) | Circular Planning | 212 | E | 0.82 | D | 0.96 | E | 0.83 | D | 0.98 | |
| Eagles Nest Rd | Jackson Rd(SR-16) | 2000 Unsignalized | HCM | E | 0.48 | A | 0.6 | A | 0.56 | A | 0.71 | |
| Grant Line Rd | White Rock Rd | 2000 Unsignalized | HCM | E | 0.76 | C | 0.87 | D | 0.77 | C | 0.92 | |
| Vineyard Rd | Kiefer Blvd | Circular Planning | 212 | E | 0.97 | E | 0.92 | E | 0.96 | E | 0.92 | |
| Vineyard Rd | Jackson Rd(SR-16) | Circular Planning | 212 | E | 0.79 | C | 0.91 | E | 0.80 | D | 0.94 | |
| Excelsior Rd | Kiefer Blvd | Circular Planning | 212 | E | 0.59 | A | 0.49 | A | 0.63 | B | 0.58 | |
| City of Rancho Cordova | | | | | | | | | | | | |
| Bradshaw Rd | Old Placerville Rd | Circular Planning | 212 | D | 1.84 F | | 1.74 F | | 2.02 F | | 1.83 F | |
| Routier Rd | Old Placerville Rd | Circular Planning | 212 | D | 1.32 F | | 1.76 F | | 1.40 F | | 1.87 F | |
| Mather Field Rd | Rockingham Dr | Circular Planning | 212 | D | 0.75 | C | 1.14 F | | 0.79 | C | 1.21 F | |
| Zinfandel Dr | White Rock Rd | Circular Planning | 212 | D | 0.77 | C | 1.28 F | | 0.81 | D | 1.44 F | |
| Zinfandel Dr | International Rd | Circular Planning | 212 | D | 1.10 F | | 1.07 F | | 1.03 F | | 1.06 F | |
| Sunrise Blvd | White Rock Rd | Circular Planning | 212 | D | 0.68 | B | 0.71 | C | 0.77 | C | 0.78 | |
| Sunrise Blvd | Douglas Rd | Circular Planning | 212 | D | 0.95 E | | 1.06 F | | 1.11 F | | 1.15 F | |
| Sunrise Blvd | Kiefer Blvd | Circular Planning | 212 | D | 0.69 | B | 0.66 | B | 0.75 | C | 0.78 | |
| Sunrise Blvd | Jackson Rd(SR-16) | Circular Planning | 212 | D | 0.94 E | | 0.83 | D | 0.96 E | | 0.84 | |
| Grant Line Rd | Douglas Rd | 2000 Unsignalized | HCM | D | 0.79 | C | 0.91 E | | 0.80 | D | 0.92 E | |
| Grant Line Rd | Jackson Rd(SR-16) | Circular Planning | 212 | D | 0.68 | B | 0.63 | B | 0.69 | B | 0.62 | |
| Zinfandel Dr | Douglas Rd | Circular Planning | 212 | D | 1.46 F | | 1.50 F | | 1.69 F | | 1.94 F | |
| Zinfandel Dr | Chrysanthy Blvd | Circular Planning | 212 | D | -- | -- | -- | -- | 0.99 E | | 1.00 E | |
| Sunrise Blvd | Chrysanthy Blvd | Circular Planning | 212 | D | 1.04 F | | 0.81 | D | 0.97 E | | 0.80 | |
| Rancho Cordova Pkwy | White Rock Rd | Circular Planning | 212 | D | 0.80 | D | 1.03 F | | 0.92 E | | 1.02 F | |
| Rancho Cordova Pkwy | Douglas Rd | Circular Planning | 212 | D | 0.53 | A | 0.77 | C | 0.54 | A | 0.79 | |
| Rancho Cordova Pkwy | Chrysanthy Blvd | Circular Planning | 212 | D | 0.65 | B | 0.59 | A | 0.72 | C | 0.62 | |
| Rancho Cordova Pkwy | Kiefer Blvd | Circular Planning | 212 | D | 0.50 | A | 0.55 | A | 0.51 | A | 0.57 | |
| Grant Line Rd | Chrysanthy Blvd | Circular Planning | 212 | D | 0.66 | B | 0.73 | C | 0.65 | B | 0.72 | |
| Grant Line Rd | Kiefer Blvd | Circular Planning | 212 | D | 0.76 | C | 0.86 | D | 0.79 | C | 0.87 | |
| Rancho Cordova Pkwy | Grant Line Rd | Circular Planning | 212 | D | 0.65 | B | 0.5 | A | 0.67 | B | 0.51 | |
| Mather Blvd | Douglas Rd | 2000 HCM Stop | HCM 4-Way | D | 197.0 F | | 345.7 F | | 607.80 F | | 723.70 F | |
| Caltrans State Highways | | | | | | | | | | | | |
| Bradshaw Rd | US-50 | WB | 2000 | HCM | E | 16.5 | B | 17.4 | B | 16.6 | B | 17.7 |

TRANSPORTATION SOLUTIONS

| | | Ramps | Operations | | | | | | | | | | | |
|-----------------|---------|-------------|------------|-----------------|-----|---|------|---|----------------|---|------|---|----------------|----------|
| Bradshaw Rd | | US-50 Ramps | EB | 2000 Operations | HCM | E | 27.5 | C | 26.5 | C | 32.3 | C | 27.3 | C |
| Mather Field Rd | | US-50 Ramps | WB | 2000 Operations | HCM | E | 17.3 | B | 13.3 | B | 19.4 | B | 14.2 | B |
| Mather Field Rd | | US-50 Ramps | EB | 2000 Operations | HCM | E | 28.1 | C | 43.5 | D | 43.7 | D | 58.0 | E |
| Zinfandel Dr | | US-50 Ramps | WB | 2000 Operations | HCM | E | 12.7 | B | 16.9 | B | 13.6 | B | 17.0 | B |
| Zinfandel Dr | | US-50 Ramps | EB | 2000 Operations | HCM | E | 41.9 | D | 115.4 F | | 56.8 | E | 144.5 F | F |
| Sunrise Blvd | | US-50 Ramps | WB | 2000 Operations | HCM | E | 17.5 | B | 19.1 | B | 17.5 | B | 20.2 | C |
| Sunrise Blvd | | US-50 Ramps | EB | 2000 Operations | HCM | E | 17.7 | B | 17 | B | 18.2 | B | 17.7 | B |
| Rancho Pkwy | Cordova | US-50 Ramps | WB | 2000 Operations | HCM | E | 18.2 | B | 21.8 | C | 18.3 | B | 21.9 | C |
| Rancho Pkwy | Cordova | US-50 Ramps | EB | 2000 Operations | HCM | E | 0.3 | A | 0.1 | A | 0.0 | A | 0.1 | A |

[1] V/C = Volume-to-Capacity ratio;

Delay: At 4-Way Stop intersections (based on the 2000 HCM 4-Way Stop methodology), the reported delay is the average intersection delay.

At unsignalized, 2-Way Stop intersections (based on the 2000 HCM Unsignalized methodology), the reported delay is for the worst approach.

At signalized intersections (based on the 2000 HCM Operations), the reported delay is the intersection delay.

Bold indicates deficiency. **Shaded** areas indicate impact

Source: DKS Associates, 2010

**TABLE 24
CUMULATIVE W/ PROJECT LOS - SACRAMENTO COUNTY & CITY OF RANCHO CORDOVA ROADWAY SEGMENTS**

| Roadway Segment | LO | Lanes | Facilit y Type | Capacity | No Project | | Project | | | |
|--------------------------------------------------------------|----|-------|----------------|----------|------------|--------|---------|--------|--------|-----|
| | | | | | Volume | V/C | LOS | Volume | V/C | LOS |
| Bradshaw Rd - US-50 to Old Placerville Rd | D | 6 | Arterial - M | 54,000 | 81,800 | 1.51 F | | 84,400 | 1.56 F | |
| Bradshaw Rd - Old Placerville Rd to Kiefer Blvd | E | 6 | Arterial - M | 54,000 | 83,000 | 1.54 F | | 83,700 | 1.55 F | |
| Bradshaw Rd - Kiefer Blvd to Jackson Rd (SR-16) | E | 6 | Arterial - M | 54,000 | 43,600 | 0.81 | D | 44,600 | 0.83 | D |
| Bradshaw Rd - Jackson Rd (SR-16) to Elder Creek Rd | E | 6 | Arterial - M | 54,000 | 58,900 | 1.09 F | | 58,900 | 1.09 F | |
| Happy Ln - Old Placerville Rd to Kiefer Blvd | E | 4 | Arterial - M | 36,000 | 39,000 | 1.08 F | | 40,200 | 1.12 F | |
| Happy Ln - Kiefer Blvd to Jackson Rd (SR-16) | E | 4 | Arterial - M | 36,000 | 31,000 | 0.86 | D | 30,800 | 0.86 | D |
| Mather Field Rd - US-50 to Old Placerville Rd | D | 6 | Arterial - M | 54,000 | 60,700 | 1.12 F | | 67,700 | 1.25 F | |
| Excelsior Rd - Kiefer Blvd to Jackson Rd (SR-16) | E | 4 | Arterial - M | 36,000 | 11,500 | 0.32 | A | 13,400 | 0.37 | A |
| Excelsior Rd - Jackson Rd (SR-16) to Elder Creek Rd | E | 4 | Arterial - M | 36,000 | 31,400 | 0.87 | D | 34,000 | 0.94 | E |
| Zinfandel Dr - US-50 to White Rock Rd | D | 6 | Arterial - M | 54,000 | 84,800 | 1.57 F | | 92,900 | 1.72 F | |
| Zinfandel Dr - White Rock Rd to International Dr | D | 6 | Arterial - M | 54,000 | 56,600 | 1.05 F | | 64,700 | 1.20 F | |
| Zinfandel Dr - South of International to North of Douglas Rd | D | 6 | Arterial - M | 54,000 | 30,200 | 0.56 | A | 43,200 | 0.80 | D |
| Eagles Nest Rd - Douglas Rd to Kiefer Blvd | E | 2 | Arterial - M | 36,000 | 5,600 | 0.31 | A | 19,700 | 0.55 | A |
| Eagles Nest Rd - Kiefer Blvd to Jackson Rd (SR-16) | E | 2 | Arterial - M | 18,000 | 6,500 | 0.36 | A | 10,900 | 0.61 | B |
| Eagles Nest Rd - Jackson Rd (SR-16) to Florin Rd | E | 2 | Arterial - M | 18,000 | 1,800 | 0.10 | A | 6,200 | 0.34 | A |
| Sunrise Blvd - Folsom Blvd to White Rock Rd | D | 6 | Arterial - M | 54,000 | 48,900 | 0.91 E | | 48,200 | 0.89 | D |
| Sunrise Blvd - White Rock Rd to Douglas Rd | D | 6 | Arterial - M | 54,000 | 51,600 | 0.96 E | | 59,900 | 1.11 F | |
| Sunrise Blvd - Douglas Rd to Kiefer Blvd | D | 6 | Arterial - M | 54,000 | 52,500 | 0.97 E | | 55,900 | 1.04 F | |
| Sunrise Blvd - Kiefer Blvd to Jackson Rd (SR-16) | D | 6 | Arterial - M | 54,000 | 28,700 | 0.53 | A | 32,900 | 0.61 | B |
| Sunrise Blvd - Jackson Rd (SR-16) to Florin Rd | D | 4 | Arterial - M | 36,000 | 25,500 | 0.71 | C | 26,100 | 0.73 | C |
| Grant Line Rd - White Rock Rd to Douglas Rd | D | 4 | Arterial - M | 36,000 | 39,300 | 1.09 F | | 39,000 | 1.08 F | |
| Grant Line Rd - Douglas Rd to Chrysanthy Blvd | D | 4 | Arterial - M | 36,000 | 27,200 | 0.76 | C | 27,100 | 0.75 | C |
| Grant Line Rd - Chrysanthy Blvd to Kiefer Blvd | D | 4 | Arterial - M | 36,000 | 30,900 | 0.86 | D | 30,800 | 0.86 | D |
| Grant Line Rd - Kiefer Blvd to Jackson Rd (SR-16) | D | 4 | Arterial - M | 36,000 | 28,400 | 0.79 | C | 28,500 | 0.79 | C |
| Grant Line Rd - Jackson Rd (SR-16) to Sunrise Blvd | E | 4 | Arterial - M | 36,000 | 22,300 | 0.62 | B | 22,000 | 0.61 | B |
| White Rock Rd - Kilgore Rd to Sunrise Blvd | D | 6 | Arterial - M | 54,000 | 17,700 | 0.33 | A | 20,500 | 0.38 | A |
| White Rock Rd - Sunrise Blvd to Rancho Cordova Pkwy | D | 6 | Arterial - M | 54,000 | 16,100 | 0.30 | A | 17,100 | 0.32 | A |
| White Rock Rd - Rancho Cordova Pkwy to Americanos Blvd | D | 6 | Arterial - M | 54,000 | 7,800 | 0.14 | A | 8,500 | 0.16 | A |
| Old Placerville Rd - Bradshaw Rd to Routier Rd | D | 6 | Arterial - M | 54,000 | 45,100 | 0.84 | D | 51,300 | 0.95 E | |
| International Drive - Zinfandel Dr to Sunrise Blvd | D | 6 | Arterial - M | 54,000 | 58,900 | 1.09 F | | 63,300 | 1.17 F | |
| Douglas Rd Ext - Extension to Excelsior Rd | D | 4 | Arterial - M | 36,000 | 6,000 | 0.17 | A | 10,400 | 0.29 | A |
| Douglas Rd - Eagles Nest Rd to Sunrise Blvd | D | 6 | Arterial - M | 54,000 | 33,500 | 0.62 | B | 43,800 | 0.81 | D |
| Douglas Rd - Sunrise Blvd to Rancho Cordova Pkwy | D | 6 | Arterial - M | 54,000 | 36,100 | 0.67 | B | 40,100 | 0.74 | C |
| Kiefer Blvd - Rosemont Dr to Bradshaw Rd | E | 4 | Arterial - M | 36,000 | 27,100 | 0.75 | C | 29,500 | 0.82 | D |
| Kiefer Blvd - Bradshaw Rd to Vineyard Rd | E | 4 | Arterial - M | 36,000 | 29,800 | 0.83 | D | 32,000 | 0.89 | D |
| Kiefer Blvd - Vineyard Rd to Excelsior Rd | E | 4 | Arterial - M | 36,000 | 23,800 | 0.66 | B | 28,100 | 0.78 | C |
| Kiefer Blvd - Excelsior Rd to Eagles Nest Rd | E | 4 | Arterial - M | 36,000 | 16,000 | 0.44 | A | 20,600 | 0.57 | A |
| Kiefer Blvd - Eagles Nest Rd to Sunrise Blvd | E | 4 | Arterial - M | 36,000 | 18,700 | 0.52 | A | 25,600 | 0.71 | C |
| Jackson Rd (SR-16) - Watt Ave to Bradshaw Rd | E | 6 | Arterial - M | 54,000 | 69,400 | 1.29 F | | 69,700 | 1.29 F | |
| Jackson Rd (SR-16) - Bradshaw Rd to Vineyard Rd | E | 6 | Arterial - M | 54,000 | 55,600 | 1.03 F | | 55,800 | 1.03 F | |
| Jackson Rd (SR-16) - Vineyard Rd to Excelsior Rd | E | 6 | Arterial - M | 54,000 | 36,900 | 0.68 | B | 37,700 | 0.70 | B |
| Jackson Rd (SR-16) - Excelsior Rd to Eagles Nest Rd | E | 4 | Arterial - M | 36,000 | 24,800 | 0.69 | B | 27,200 | 0.76 | C |
| Jackson Rd (SR-16) - Eagles Nest Rd to Sunrise Blvd | E | 4 | Arterial - M | 36,000 | 25,500 | 0.71 | C | 26,300 | 0.73 | C |
| Jackson Rd (SR-16) - Sunrise Blvd to Grant Line Rd | D | 4 | Arterial - M | 36,000 | 32,700 | 0.91 E | | 33,700 | 0.94 E | |
| Jackson Rd (SR-16) - Sunrise Blvd to Kiefer Blvd | E | 2 | Rural Hwy | 22,900 | 18,300 | 0.80 | E | 18,800 | 0.82 | E |
| Rancho Cordova Pkwy - US-50 to White Rock Rd | D | 6 | Arterial - M | 54,000 | 47,200 | 0.87 | D | 47,400 | 0.88 | D |
| Rancho Cordova Pkwy - White Rock Rd to Douglas Rd | D | 4 | Arterial - M | 36,000 | 17,000 | 0.47 | A | 17,200 | 0.48 | A |
| Rancho Cordova Pkwy - Douglas Rd to Kiefer Blvd | D | 4 | Arterial - M | 36,000 | 13,600 | 0.38 | A | 13,100 | 0.36 | A |
| Rancho Cordova Pkwy - Kiefer Blvd to Grant Line Rd | D | 2 | Arterial - M | 18,000 | 9,000 | 0.50 | A | 8,800 | 0.49 | A |
| Mather Blvd - Douglas Rd to Base | D | 2 | Arterial - M | 18,000 | 9,200 | 0.51 | A | 15,700 | 0.87 | D |

Notes: LOS = level of service; SR = State Route; U.S. 50 = U.S. Highway 50; V/C = volume-to-capacity; Arterial - M = Arterial with moderate access control; Rural Hwy = Rural 2-lane highway, Rural S = Rural 2-lane road with 24'-36' of pavement and paved shoulders; Rural NS = rural 2-lane road with 24'-36' of pavement and no shoulders
Bold indicates deficiency. **Shaded** areas indicate impact

Source: DKS Associates 2010

CALTRANS Freeway Mainline

Table 25 summarizes a.m. and p.m. peak hour mainline operating conditions under Cumulative conditions with the addition of the Preferred Alternative A. The following roadway mainline segments are considered to have a significant impact due to the project:

- US-50 EB Watt Ave to Bradshaw Rd – There is an increase in traffic volume on this freeway segment already operating at LOS “F.”
- US-50 WB Hazel Ave to Rancho Cordova Prky – There is an increase in traffic volume on this freeway segment already operating at LOS “F.”
- US-50 WB Rancho Cordova Prky to Sunrise Blvd – There is an increase in traffic volume on this freeway segment already operating at LOS “F.”
- US-50 WB Sunrise Blvd to Zinfandel Dr – There is an increase in traffic volume on this freeway segment already operating at LOS “F.”
- US-50 EB Rancho Cordova Prky to Hazel Ave – There is an increase in traffic volume on this freeway segment already operating at LOS “F.”
- US-50 WB Bradshaw Rd to Watt Ave – There is an increase in traffic volume on this freeway segment already operating at LOS “F.”

CALTRANS Freeway Merge, diverge, and weaving areas

Table 26 summarizes a.m. and p.m. peak hour merge, diverge, and weaving area operating conditions under Baseline conditions with the addition of the preferred alternative. The following roadway areas are considered to have a significant impact due to the project:

- Eastbound diverge to Bradshaw Road Off-Ramp – There is an increase in traffic volume in this freeway area already operating at LOS “F.”
- Eastbound diverge to Mather Field Road Off-Ramp – There is an increase in traffic volume in this freeway area already operating at LOS “F.”
- Westbound loop and slip to Mather Field Road On-Ramp – There is an increase in traffic volume in this freeway area already operating at LOS “F.”

Bicycle and Pedestrian Impacts

The proposed project is not expected to eliminate or adversely affect bikeways and / or pedestrian facilities. The proposed project is not expected to interfere with the implementation of planned bikeways or pedestrian facilities.

Transit Impacts

The Transportation Plan for Sacramento County’s General Plan Update allows for expansion of transit service and includes implementation of “high quality transit” in three key corridors that would operate at

LOS “F” conditions in 2032. High quality transit, or bus rapid transit, would operate along Watt Avenue, Sunrise Boulevard, and Florin Road. The Transportation Plan in the County’s General Plan Update includes a robust transit system to both serve new growth areas and better serve existing urban areas. While the proposed project would result in an increase in the number of transit trips compared to Baseline Conditions, new development within the County is typically required to provide transit facilities and coordinate with local transit agencies to meet this increase in demand. The impact of the proposed project on transit facilities and operations is considered less-than-significant.

**TABLE 25
CUMULATIVE WITH PROJECT LEVEL OF SERVICE - CALTRANS FREEWAY MAINLINE SEGMENTS**

| Segment | Lanes | Cumulative Year 2035 | | | Cumulative Year 2035 + Project | | |
|----------------------------------------------|-------|----------------------|----------------------|------------------|--------------------------------|----------------------|------------------|
| | | Volume | Density ² | LOS ³ | Volume | Density ² | LOS ³ |
| AM Peak Hour | | | | | | | |
| US-50 EB Watt Ave to Bradshaw Rd | 5 | 9,170 | 50 F | | 9,570 | 58 | F |
| US-50 EB Bradshaw Rd to Mather Field Rd | 5 | 8,420 | 40 | E | 8,670 | 42 | E |
| US-50 EB Mather Field Rd to Zinfandel Dr | 6 | 8,030 | 32 | D | 8,160 | 33 | D |
| US-50 EB Zinfandel Dr to Sunrise Blvd | 5 | 6,820 | 29 | D | 6,980 | 29 | D |
| US-50 EB Sunrise Blvd to Rancho Cordova Prky | 5 | 5,210 | 24 | C | 5,270 | 24 | C |
| US-50 EB Rancho Cordova Prky to Hazel Ave | 5 | 6,910 | 44 | E | 6,910 | 44 | E |
| US-50 WB Hazel Ave to Rancho Cordova Prky | 5 | 7,670 | 60 F | | 7,810 | 65 | F |
| US-50 WB Rancho Cordova Prky to Sunrise Blvd | 5 | 7,500 | 50 F | | 7,580 | 51 | F |
| US-50 WB Sunrise Blvd to Zinfandel Dr | 5 | 9,400 | 54 F | | 9,560 | 57 | F |
| US-50 WB Zinfandel Dr to Mather Field Rd | 6 | 9,080 | 33 | D | 9,340 | 35 | D |
| US-50 WB Mather Field Rd to Bradshaw Rd | 5 | 8,720 | 44 | E | 8,630 | 43 | E |
| US-50 WB Bradshaw Rd to Watt Ave | 5 | 9,680 | 56 F | | 9,480 | 53 | F |
| PM Peak Hour | | | | | | | |
| US-50 EB Watt Ave to Bradshaw Rd | 5 | 9,770 | 47 F | | 9,760 | 48 F | |
| US-50 EB Bradshaw Rd to Mather Field Rd | 5 | 8,750 | 36 | E | 8,860 | 37 | E |
| US-50 EB Mather Field Rd to Zinfandel Dr | 6 | 9,400 | 34 | D | 9,640 | 35 | D |
| US-50 EB Zinfandel Dr to Sunrise Blvd | 5 | 9,000 | 41 | E | 9,360 | 44 | E |
| US-50 EB Sunrise Blvd to Rancho Cordova Prky | 5 | 7,790 | 40 | E | 8,000 | 43 | E |
| US-50 EB Rancho Cordova Prky to Hazel Ave | 5 | 8,170 | 62 F | | 8,340 | 68 | F |
| US-50 WB Hazel Ave to Rancho Cordova Prky | 5 | 6,750 | 37 | E | 6,740 | 37 | E |
| US-50 WB Rancho Cordova Prky to Sunrise Blvd | 5 | 6,670 | 34 | D | 6,740 | 34 | D |
| US-50 WB Sunrise Blvd to Zinfandel Dr | 5 | 6,970 | 27 | D | 7,120 | 28 | D |
| US-50 WB Zinfandel Dr to Mather Field Rd | 6 | 8,140 | 31 | D | 8,410 | 32 | D |
| US-50 WB Mather Field Rd to Bradshaw Rd | 5 | 8,270 | 33 | D | 8,580 | 35 | D |
| US-50 WB Bradshaw Rd to Watt Ave | 5 | 9,620 | 47 F | | 10,000 | 53 | F |

¹ Based on Freeway Performance Measurement System data from April and May 2008

² Density given as passenger cars per mile per lane

³ LOS = Level of Service

Bold indicates deficiency. **Shaded** areas indicate impact

**TABLE 26
CUMULATIVE W/ PROJECT LOS - CALTRANS FREEWAY MERGE/DIVERGE WEAVING AREAS**

| Segment | Ramp Type | Peak Hour Ramp Volumes | | Peak Hour Ramp Density/LOS | | | |
|----------------------------|-------------|-------------------------|-------|----------------------------|----------|---------|-----|
| | | Cumulative Plus Project | | Cumulative Plus Project | | | |
| | | AM | PM | AM | | PM | |
| | | Density | LOS | Density | LOS | Density | LOS |
| US-50 Eastbound | | | | | | | |
| Bradshaw Road Off-Ramp | | 2,178 | 1,857 | 26.7 | F | 20.4 | C |
| Bradshaw Road On-Ramp | Loop | 411 | 500 | 21.7 | C | 19.0 | B |
| Bradshaw Road On-Ramp | Slip | 1,041 | 897 | 30.2 | D | 26.3 | C |
| Mather Field Road Off-Ramp | | 1,622 | 1,298 | 47.0 | F | 39.5 | E |
| Mather Field Road On-Ramp | Loop | 216 | 247 | 20.4 | C | 18.2 | B |
| Zinfandel Drive On-Ramp | Loop | 197 | 464 | 19.4 | B | 21.0 | C |
| Zinfandel Drive On-Ramp | Slip | 653 | 1,110 | 19.5 | B | 21.2 | C |
| Sunrise Boulevard On-Ramp | Loop & Slip | 986 | 1,102 | NA | NA | NA | NA |
| US-50 Westbound | | | | | | | |
| Zinfandel Drive Off-Ramp | | 968 | 1,160 | 34.9 | D | 39.6 | E |
| Zinfandel Drive On-Ramp | Slip | 331 | 1,303 | 19.8 | B | 19.6 | B |
| Mather Field Road On-Ramp | Loop & Slip | 893 | 1,576 | 31.8 | F | 30.9 | D |
| Bradshaw Road Off-Ramp | | 1,639 | 1,831 | 19.7 | B | 21.6 | C |
| Bradshaw Road On-Ramp | Loop | 1,556 | 1,686 | 20.6 | C | 20.7 | C |
| Bradshaw Road On-Ramp | Slip | 1,556 | 1,686 | 20.6 | C | 20.7 | C |

¹ Based on Freeway Performance Measurement System data from April and May 2008

² Density given as passenger cars per mile per lane

³ LOS = Level of Service

Bold indicates deficiency. **Shaded** areas indicate impact

Cumulative Plus Preferred Alternative A Scenario Mitigation Measures

Potential mitigation measures for Cumulative plus Preferred Alternative A project impacts identified at study area intersections are described below.

City of Rancho Cordova Intersections

- Bradshaw Road and Old Placerville Road – The identified mitigation measure is to add a second westbound right turn lane. While the LOS would remain LOS “F”, this mitigation would reduce the increase in v/c to less than 0.05, thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 3%, p.m. peak hour: 2%.
- Routier Road and Old Placerville – The identified mitigation measure is to add a second eastbound left turn lane. While the LOS would remain LOS “F”, this mitigation would reduce the increase in v/c to less than 0.05, thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: a.m. peak hour: 10%, p.m. peak hour: 8%.
- Mather Field Road and Rockingham Drive – The identified mitigation measure is to add a second exclusive eastbound left turn lane. The geometry for the eastbound approach with the identified mitigation measure would be 2-exclusive left turn lanes, 1-shared left-thru, and 1-shared thru-right turn lane. The eastbound and westbound approaches would operate split phase with the identified mitigation measure. While the LOS would remain LOS “F”, this mitigation would reduce the increase in v/c to less than 0.05, thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: p.m. peak hour: 5%.
- Zinfandel Drive and White Rock Road – The identified mitigation measure is to widen the northbound approach to Zinfandel Drive to provide three northbound through lanes and a shared northbound through-right turn lane. Zinfandel Drive currently has four northbound through lanes on the departure leg of this intersection, north of White Rock Road. While the LOS would remain LOS “F”, this mitigation would reduce the increase in v/c to less than 0.05, thus reducing the impact to less-than-significant. The preferred alternative’s fair share contribution to this measure is estimated as follows: p.m. peak hour: 5%.
- Sunrise Boulevard and Douglas Road – The identified mitigation measure is to add a second exclusive southbound right turn lane and a second eastbound right turn lane. The addition of a second southbound right turn lane would improve the LOS to “E” and reduce the increase in v/c to less than 0.05 during the a.m. peak hour. While the p.m. peak hour LOS would remain LOS “F”, the addition of a second exclusive eastbound

- right turn lane would reduce the increase in v/c to less than 0.05. The identified mitigation would reduce the impact to less-than-significant. The preferred alternative's fair share contribution to this measure is estimated as follows: a.m. peak hour: 10%, p.m. peak hour: 11%.
- Zinfandel Drive and Douglas Road – The identified mitigation measure is to add a second exclusive southbound left turn lane and a second exclusive westbound right turn lane. The geometry for the southbound approach with the identified mitigation measure would be 2-exclusive left turn lanes, 2-thru lanes and 1-exclusive right turn lane. The geometry for the westbound approach with the identified mitigation measure would be 1-exclusive left turn lane, 2-thru lanes and 2-exclusive right turn lanes. While the LOS would remain LOS “F”, this mitigation would reduce the increase in v/c to less than 0.05, thus reducing the impact to less-than-significant. The preferred alternative's fair share contribution to this measure is estimated as follows: a.m. peak hour: 33%, p.m. peak hour: 33%.
 - Zinfandel Drive and Chrysanthy Boulevard – The identified mitigation measure is to add second exclusive left turn lane to the southbound approach. This mitigation would improve the intersection to LOS “D”, thus reducing the impact to less-than-significant. The preferred alternative's fair share contribution to this measure is estimated as follows: a.m. peak hour: 100%, p.m. peak hour: 100%.
 - Rancho Cordova Boulevard and White Rock Road – The identified mitigation measure is to widen Rancho Cordova Boulevard to provide a second northbound left turn lane and restripe the northbound approach. This mitigation would improve the intersection to LOS “D”, thus reducing the impact to less-than-significant. The preferred alternative's fair share contribution to this measure is estimated as follows: a.m. peak hour: 4%.
 - Mather Boulevard and Douglas Road – The identified mitigation is to construct a new traffic signal with the following geometry: Northbound approach: 1-exclusive thru lane and 1-exclusive right turn lane; Southbound approach: 2-exclusive left turn lanes, 1-exclusive thru lane, and 1-exclusive right turn lane; Eastbound approach: 1-exclusive left turn lane and 1-exclusive thru lane; Westbound approach: 2-exclusive left turn lanes, 1-exclusive thru lane, and 2-exclusive right turn lanes. This mitigation would improve the intersection to LOS “D” or better, thus reducing the impact to less-than-significant. The preferred alternative's fair share contribution to this measure is estimated as follows: a.m. peak hour: 35%, p.m. peak hour: 30%.

Caltrans State Highway Intersections

- Zinfandel Drive and US-50 Eastbound Ramps – The identified mitigation is to convert the eastbound right turn lane into a free right lane by installing a right turn channelizing island. While the LOS would remain LOS “F”, this mitigation would reduce the increase in v/c to less than 0.05, thus reducing the impact to less-than-significant. The preferred

alternative's fair share contribution to this measure is estimated as follows: a.m. peak hour: 5%.

City of Rancho Cordova Roadway Segments

- Mather Field Rd - US-50 to Old Placerville Rd – The existing roadway is already improved to 6 lanes and no further widening is feasible. This is a significant and unavoidable impact.
- Zinfandel Dr - US-50 to White Rock Rd – The existing roadway is already improved to 6 lanes and no further widening is feasible. This is a significant and unavoidable impact.
- Zinfandel Dr - White Rock Rd to International Dr – The existing roadway is already improved to 6 lanes and no further widening is feasible. This is a significant and unavoidable impact.
- Sunrise Blvd - White Rock Rd to Douglas Rd – The existing roadway is already improved to 6 lanes and no further widening is feasible. This is a significant and unavoidable impact.
- Sunrise Blvd - Douglas Rd to Kiefer Blvd – The existing roadway is already improved to 6 lanes and no further widening is feasible. This is a significant and unavoidable impact.
- Old Placerville Rd - Bradshaw Rd to Routier Rd - The existing roadway is already improved to 6 lanes and no further widening is feasible. This is a significant and unavoidable impact.
- International Drive - Zinfandel Dr to Sunrise Blvd – The existing roadway is already improved to 6 lanes and no further widening is feasible. This is a significant and unavoidable impact.

Caltrans Freeway Merge, Diverge, and Weaving Areas

- Eastbound diverge to Mather Field Road Off-Ramp – Add an auxiliary lane to allow a double lane off ramp. This would reduce the impact to less-than-significant.

APPENDIX A

Mather Specific Plan EIS Traffic Analysis

01 Existing Conditions

Mather Specific Plan
Existing
AM Peak Hour

Scenario Report
Scenario: Existing AM

Command: Existing AM
Volume: Existing AM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Existing AM

Mather Specific Plan
Existing
AM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 1 Bradshaw Rd/Old Placerville Rd | D xxxxx | 0.830 | D xxxxx | 0.830 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | C xxxxx | 0.797 | C xxxxx | 0.797 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | E xxxxx | 0.964 | E xxxxx | 0.964 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | A xxxxx | 0.434 | A xxxxx | 0.434 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | C xxxxx | 0.768 | C xxxxx | 0.768 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | A xxxxx | 0.486 | A xxxxx | 0.486 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | A xxxxx | 0.540 | A xxxxx | 0.540 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | A xxxxx | 0.312 | A xxxxx | 0.312 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | B 12.5 | 0.034 | B 12.5 | 0.034 | + 0.000 D/V |
| # 10 Sunrise Blvd/White Rock Rd | B xxxxx | 0.617 | B xxxxx | 0.617 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | A xxxxx | 0.498 | A xxxxx | 0.498 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | A xxxxx | 0.434 | A xxxxx | 0.434 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | E xxxxx | 0.954 | E xxxxx | 0.954 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | C 17.5 | 0.114 | C 17.5 | 0.114 | + 0.000 D/V |
| # 15 Grant Line Rd/Douglas Rd | C 22.9 | 0.280 | C 22.9 | 0.280 | + 0.000 D/V |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | F xxxxx | 1.036 | F xxxxx | 1.036 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B 18.7 | 0.461 | B 18.7 | 0.461 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C 21.7 | 0.716 | C 21.7 | 0.716 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | C 20.6 | 0.594 | C 20.6 | 0.594 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | C 21.7 | 0.755 | C 21.7 | 0.755 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | B 17.3 | 0.447 | B 17.3 | 0.447 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | C 31.9 | 0.957 | C 31.9 | 0.957 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | B 14.2 | 0.655 | B 14.2 | 0.655 | + 0.000 D/V |

Mather Specific Plan
Existing
AM Peak Hour

| Intersection | Base | | Future | | Change in |
|----------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 24 Sunrise Blvd/US-50 EB Ramps | B 19.2 | 0.777 | B 19.2 | 0.777 | + 0.000 D/V |

Mather Specific Plan
Existing
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.830
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 134 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Movement: | | | | | | | | | | | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 3 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 1 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 48 | 1201 | 423 | 543 | 1005 | 39 | 59 | 40 | 26 | 265 | 22 | 484 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 48 | 1201 | 423 | 543 | 1005 | 39 | 59 | 40 | 26 | 265 | 22 | 484 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Volume: | 48 | 1201 | 423 | 543 | 1005 | 39 | 59 | 40 | 26 | 265 | 22 | 484 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 48 | 1201 | 423 | 543 | 1005 | 39 | 59 | 40 | 26 | 265 | 22 | 484 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 48 | 1201 | 423 | 543 | 1005 | 39 | 59 | 40 | 26 | 265 | 22 | 484 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 2.89 | 0.11 | 1.00 | 0.61 | 0.39 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 4500 | 1500 | 3000 | 4332 | 168 | 1500 | 909 | 591 | 3000 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.27 | 0.28 | 0.18 | 0.23 | 0.23 | 0.04 | 0.04 | 0.04 | 0.09 | 0.01 | 0.32 |
| Crit Volume: | | 423 | 272 | | | | | | 66 | | | 484 |
| Crit Moves: | | **** | **** | | | | | | **** | | | **** |

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.797
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 113 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.964
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Routier Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.434
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns and 10 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows including Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Mather Field Rd/Rockingham Dr

Cycle (sec): 100 Critical Vol./Cap. (X): 0.768
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 98 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns and 10 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows including Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.486
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Zinfandel Dr/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.540
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Zinfandel Dr/International Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.312
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes.

Table with 12 columns for traffic volume. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with 12 columns for saturation flow. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns for capacity analysis. Rows include Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: B[12.5]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Lanes.

Table with 12 columns for traffic volume. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns for critical gap. Rows include Critical Gap Module, Critical Gp, FollowUpTim.

Table with 12 columns for capacity. Rows include Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns for level of service. Rows include Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.617
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns for volume and 10 columns for adjustment factors (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.498
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns for volume and 10 columns for adjustment factors (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Existing
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Sunrise Blvd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.434
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 7 | 1013 | 21 | 22 | 460 | 5 | 50 | 2 | 2 | 25 | 0 | 79 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 7 | 1013 | 21 | 22 | 460 | 5 | 50 | 2 | 2 | 25 | 0 | 79 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 7 | 1013 | 21 | 22 | 460 | 5 | 50 | 2 | 2 | 25 | 0 | 79 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 7 | 1013 | 21 | 22 | 460 | 5 | 50 | 2 | 2 | 25 | 0 | 79 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 7 | 1013 | 21 | 22 | 460 | 5 | 50 | 2 | 2 | 25 | 0 | 79 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.98 | 0.02 | 0.92 | 0.04 | 0.04 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 1500 | 3000 | 1500 | 3000 | 2968 | 32 | 1389 | 56 | 56 | 1500 | 0 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.34 | 0.01 | 0.01 | 0.15 | 0.16 | 0.04 | 0.04 | 0.04 | 0.02 | 0.00 | 0.05 |
| Crit Volume: | 507 | | 11 | | | 54 | | | | | | 79 |
| Crit Moves: | *** | | *** | | | *** | | | | | | *** |

Mather Specific Plan
Existing
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.954
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 5 | 700 | 29 | 113 | 266 | 60 | 66 | 168 | 2 | 29 | 523 | 200 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 5 | 700 | 29 | 113 | 266 | 60 | 66 | 168 | 2 | 29 | 523 | 200 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 5 | 700 | 29 | 113 | 266 | 60 | 66 | 168 | 2 | 29 | 523 | 200 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 5 | 700 | 29 | 113 | 266 | 60 | 66 | 168 | 2 | 29 | 523 | 200 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 5 | 700 | 29 | 113 | 266 | 60 | 66 | 168 | 2 | 29 | 523 | 200 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.96 | 0.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 1440 | 60 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.49 | 0.49 | 0.08 | 0.18 | 0.04 | 0.04 | 0.11 | 0.00 | 0.02 | 0.35 | 0.13 |
| Crit Volume: | 729 | 113 | | 66 | | | | | | 523 | | |
| Crit Moves: | *** | *** | | *** | | | *** | | | *** | | |

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 Grant Line Rd/White Rock Rd

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C [17.5]

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Lanes.

Volume Module table with 4 columns and 10 rows: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module table with 4 columns and 2 rows: Critical Gap, FollowUpTim.

Capacity Module table with 4 columns and 4 rows: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module table with 4 columns and 10 rows: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #15 Grant Line Rd/Douglas Rd

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: C [22.9]

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Lanes.

Volume Module table with 4 columns and 10 rows: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module table with 4 columns and 2 rows: Critical Gap, FollowUpTim.

Capacity Module table with 4 columns and 4 rows: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module table with 4 columns and 10 rows: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative) Intersection #16 Grant Line Rd/Jackson Rd(SR-16) Cycle (sec): 100 Critical Vol./Cap. (X): 1.036 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx Optimal Cycle: 180 Level Of Service: F

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #17 Bradshaw Rd/US-50 WB Ramps Cycle (sec): 100 Critical Vol./Cap. (X): 0.461 Loss Time (sec): 6 Average Delay (sec/veh): 18.7 Optimal Cycle: 25 Level Of Service: B

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.716
Loss Time (sec): 6 Average Delay (sec/veh): 21.7
Optimal Cycle: 44 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 10 columns and 10 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.594
Loss Time (sec): 6 Average Delay (sec/veh): 20.6
Optimal Cycle: 33 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 10 columns and 10 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.755
Loss Time (sec): 6 Average Delay (sec/veh): 21.7
Optimal Cycle: 50 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns and 11 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 11 columns and 11 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 11 columns and 11 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.447
Loss Time (sec): 6 Average Delay (sec/veh): 17.3
Optimal Cycle: 25 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns and 11 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 11 columns and 11 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 11 columns and 11 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Zinfandel Dr/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.957
Loss Time (sec): 9 Average Delay (sec/veh): 31.9
Optimal Cycle: 144 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control Rights, Y+R, Lanes.

Volume Module table with 10 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 13 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing AM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sunrise Blvd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.655
Loss Time (sec): 6 Average Delay (sec/veh): 14.2
Optimal Cycle: 37 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control Rights, Y+R, Lanes.

Volume Module table with 10 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 13 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.777
Loss Time (sec): 6 Average Delay (sec/veh): 19.2
Optimal Cycle: 53 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 1279 | 526 | 0 | 2429 | 453 | 1016 | 0 | 746 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1279 | 526 | 0 | 2429 | 453 | 1016 | 0 | 746 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1279 | 0 | 0 | 2429 | 0 | 1016 | 0 | 746 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1279 | 0 | 0 | 2429 | 0 | 1016 | 0 | 746 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 1279 | 0 | 0 | 2429 | 0 | 1016 | 0 | 746 | 0 | 0 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.91 | 0.91 | 1.00 | 0.91 | 0.91 | 0.92 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 4.00 | 0.00 | 0.00 | 3.00 | 0.00 | 3.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 6916 | 0 | 0 | 5187 | 0 | 5253 | 0 | 2842 | 0 | 0 | 0 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.18 | 0.00 | 0.00 | 0.47 | 0.00 | 0.19 | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | **** | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.60 | 0.00 | 0.00 | 0.60 | 0.00 | 0.34 | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 0.31 | 0.00 | 0.00 | 0.78 | 0.00 | 0.57 | 0.00 | 0.78 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 9.7 | 0.0 | 0.0 | 16.2 | 0.0 | 27.7 | 0.0 | 33.8 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 9.7 | 0.0 | 0.0 | 16.2 | 0.0 | 27.7 | 0.0 | 33.8 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | B | A | C | A | C | A | A | A |
| HCM2kAvgQ: | 0 | 5 | 0 | 0 | 22 | 0 | 9 | 0 | 14 | 0 | 0 | 0 |

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Existing
PM Peak Hour

Scenario: Existing PM

Command: Existing PM
Volume: Existing PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Existing PM

Mather Specific Plan
Existing
PM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|------|-------------|--------|-------------|--------------|
| | LOS | Del/V/C | LOS | Del/V/C | |
| # 1 Bradshaw Rd/Old Placerville Rd | D | xxxxx 0.862 | D | xxxxx 0.862 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | D | xxxxx 0.881 | D | xxxxx 0.881 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | D | xxxxx 0.874 | D | xxxxx 0.874 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | A | xxxxx 0.578 | A | xxxxx 0.578 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | D | xxxxx 0.832 | D | xxxxx 0.832 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | A | xxxxx 0.476 | A | xxxxx 0.476 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | C | xxxxx 0.738 | C | xxxxx 0.738 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | A | xxxxx 0.440 | A | xxxxx 0.440 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | C | 21.3 0.267 | C | 21.3 0.267 | + 0.000 D/V |
| # 10 Sunrise Blvd/White Rock Rd | B | xxxxx 0.667 | B | xxxxx 0.667 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | A | xxxxx 0.430 | A | xxxxx 0.430 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | A | xxxxx 0.447 | A | xxxxx 0.447 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | D | xxxxx 0.842 | D | xxxxx 0.842 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | F | 80.8 0.961 | F | 80.8 0.961 | + 0.000 D/V |
| # 15 Grant Line Rd/Douglas Rd | C | 17.0 0.070 | C | 17.0 0.070 | + 0.000 D/V |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | F | xxxxx 1.129 | F | xxxxx 1.129 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B | 18.7 0.522 | B | 18.7 0.522 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C | 22.7 0.719 | C | 22.7 0.719 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | B | 16.3 0.597 | B | 16.3 0.597 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | B | 17.3 0.536 | B | 17.3 0.536 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | B | 14.3 0.533 | B | 14.3 0.533 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | C | 26.8 0.860 | C | 26.8 0.860 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | B | 13.0 0.757 | B | 13.0 0.757 | + 0.000 D/V |

Mather Specific Plan
Existing
PM Peak Hour

| Intersection | Base | | Future | | Change in |
|----------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 24 Sunrise Blvd/US-50 EB Ramps | B 17.6 | 0.572 | B 17.6 | 0.572 | + 0.000 D/V |

Mather Specific Plan
Existing
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.862
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 166 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Movement: | | | | | | | | | | | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 3 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 1 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 40 | 1145 | 344 | 390 | 1417 | 57 | 55 | 33 | 20 | 298 | 152 | 662 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 40 | 1145 | 344 | 390 | 1417 | 57 | 55 | 33 | 20 | 298 | 152 | 662 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Volume: | 40 | 1145 | 344 | 390 | 1417 | 57 | 55 | 33 | 20 | 298 | 152 | 662 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 40 | 1145 | 344 | 390 | 1417 | 57 | 55 | 33 | 20 | 298 | 152 | 662 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 40 | 1145 | 344 | 390 | 1417 | 57 | 55 | 33 | 20 | 298 | 152 | 662 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 2.88 | 0.12 | 1.00 | 0.62 | 0.38 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 4500 | 1500 | 3000 | 4326 | 174 | 1500 | 934 | 566 | 3000 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.25 | 0.23 | 0.13 | 0.33 | 0.33 | 0.04 | 0.04 | 0.04 | 0.10 | 0.10 | 0.44 |
| Crit Volume: | 382 | | | 195 | | | 55 | | | 662 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Existing
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.881
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 83 | 678 | 60 | 0 | 1486 | 188 | 190 | 72 | 209 | 286 | 111 | 10 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 83 | 678 | 60 | 0 | 1486 | 188 | 190 | 72 | 209 | 286 | 111 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 83 | 678 | 60 | 0 | 1486 | 188 | 190 | 72 | 209 | 286 | 111 | 10 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 83 | 678 | 60 | 0 | 1486 | 188 | 190 | 72 | 209 | 286 | 111 | 10 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 83 | 678 | 60 | 0 | 1486 | 188 | 190 | 72 | 209 | 286 | 111 | 10 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.84 | 0.16 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.83 | 0.17 |
| Final Sat.: | 1500 | 2756 | 244 | 1500 | 3000 | 1500 | 1500 | 1500 | 1500 | 1500 | 2752 | 248 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.06 | 0.25 | 0.25 | 0.00 | 0.50 | 0.13 | 0.13 | 0.05 | 0.14 | 0.19 | 0.04 | 0.04 |
| Crit Volume: | 83 | | | 743 | | | 209 | 286 | | | | |
| Crit Moves: | **** | | | **** | | | **** | **** | | | | |

Mather Specific Plan
Existing
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.874
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 56 | 626 | 20 | 304 | 1602 | 303 | 243 | 416 | 64 | 38 | 217 | 132 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 56 | 626 | 20 | 304 | 1602 | 303 | 243 | 416 | 64 | 38 | 217 | 132 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 56 | 626 | 20 | 304 | 1602 | 303 | 243 | 416 | 64 | 38 | 217 | 132 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 56 | 626 | 20 | 304 | 1602 | 303 | 243 | 416 | 64 | 38 | 217 | 132 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 56 | 626 | 20 | 304 | 1602 | 303 | 243 | 416 | 64 | 38 | 217 | 132 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.94 | 0.06 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 2907 | 93 | 1500 | 3000 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.04 | 0.22 | 0.22 | 0.20 | 0.53 | 0.20 | 0.16 | 0.28 | 0.04 | 0.03 | 0.14 | 0.09 |
| Crit Volume: | 56 | | | 801 | | | 416 | | | 38 | | |
| Crit Moves: | **** | | | **** | | | **** | **** | | **** | | |

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Routier Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.578
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Mather Field Rd/Rockingham Dr

Cycle (sec): 100 Critical Vol./Cap. (X): 0.832
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 136 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.476
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for volume and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow and 11 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity and 11 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Zinfandel Dr/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.738
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 87 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for volume and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow and 11 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity and 11 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)
Intersection #8 Zinfandel Dr/International Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.440
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: A

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Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)
Average Delay (sec/veh): 2.3 Worst Case Level Of Service: C [21.3]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to DKS ASSOC., SACRAMENTO

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.667
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 68 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Includes Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns for saturation flow and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for capacity analysis and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.430
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Includes Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns for saturation flow and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for capacity analysis and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Sunrise Blvd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.447
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 10 columns and 10 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 4 rows including Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.842
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 144 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 10 columns and 10 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 4 rows including Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 Grant Line Rd/White Rock Rd

Average Delay (sec/veh): 26.2 Worst Case Level Of Service: F [80.8]

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Critical Gap Module, Critical Gp, and FollowUpTim.

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Capacity Module, Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #15 Grant Line Rd/Douglas Rd

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C [17.0]

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Critical Gap Module, Critical Gp, and FollowUpTim.

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Capacity Module, Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report Circular 212 Planning Method (Base Volume Alternative) Intersection #16 Grant Line Rd/Jackson Rd(SR-16) Cycle (sec): 100 Critical Vol./Cap. (X): 1.129 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx Optimal Cycle: 180 Level Of Service: F

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Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative) Intersection #17 Bradshaw Rd/US-50 WB Ramps Cycle (sec): 100 Critical Vol./Cap. (X): 0.522 Loss Time (sec): 6 Average Delay (sec/veh): 18.7 Optimal Cycle: 28 Level Of Service: B

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Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.719
Loss Time (sec): 6 Average Delay (sec/veh): 22.7
Optimal Cycle: 44 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Growth, Initial, User, PHF, etc.).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.597
Loss Time (sec): 6 Average Delay (sec/veh): 16.3
Optimal Cycle: 33 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Growth, Initial, User, PHF, etc.).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.536
Loss Time (sec): 6 Average Delay (sec/veh): 17.3
Optimal Cycle: 29 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.533
Loss Time (sec): 6 Average Delay (sec/veh): 14.3
Optimal Cycle: 29 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Zinfandel Dr/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.860
Loss Time (sec): 9 Average Delay (sec/veh): 26.8
Optimal Cycle: 86 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control Rights, Y+R, Lanes.

Volume Module: Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan Existing PM Peak Hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sunrise Blvd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.757
Loss Time (sec): 6 Average Delay (sec/veh): 13.0
Optimal Cycle: 50 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control Rights, Y+R, Lanes.

Volume Module: Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Existing
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.572
Loss Time (sec): 6 Average Delay (sec/veh): 17.6
Optimal Cycle: 31 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 2118 | 479 | 0 | 1222 | 441 | 1214 | 0 | 320 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2118 | 479 | 0 | 1222 | 441 | 1214 | 0 | 320 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2118 | 0 | 0 | 1222 | 0 | 1214 | 0 | 320 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2118 | 0 | 0 | 1222 | 0 | 1214 | 0 | 320 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 2118 | 0 | 0 | 1222 | 0 | 1214 | 0 | 320 | 0 | 0 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.91 | 0.91 | 1.00 | 0.91 | 0.91 | 0.92 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 4.00 | 0.00 | 0.00 | 3.00 | 0.00 | 3.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 6916 | 0 | 0 | 5187 | 0 | 5253 | 0 | 2842 | 0 | 0 | 0 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.31 | 0.00 | 0.00 | 0.24 | 0.00 | 0.23 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| Green/Cycle: | 0.00 | 0.54 | 0.00 | 0.00 | 0.54 | 0.00 | 0.40 | 0.00 | 0.40 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 0.57 | 0.00 | 0.00 | 0.44 | 0.00 | 0.57 | 0.00 | 0.28 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 15.8 | 0.0 | 0.0 | 14.2 | 0.0 | 23.5 | 0.0 | 20.1 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 15.8 | 0.0 | 0.0 | 14.2 | 0.0 | 23.5 | 0.0 | 20.1 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | B | A | A | B | A | C | A | C | A | A | A |
| HCM2kAvgQ: | 0 | 12 | 0 | 0 | 8 | 0 | 10 | 0 | 4 | 0 | 0 | 0 |

Note: Queue reported is the number of cars per lane.

02 Baseline No Project

Mather Specific Plan
Baseline No Project
AM Peak Hour

Scenario: Scenario Report
Baseline AM No Project

Command: Baseline AM No Project
Volume: Baseline AM No Project
Geometry: Baseline No Project
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Baseline AM No Project

Mather Specific Plan
Baseline No Project
AM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|------|-------------|--------|-------------|--------------|
| | LOS | Veh C | LOS | Veh C | |
| # 1 Bradshaw Rd/Old Placerville Rd | D | xxxxx 0.840 | D | xxxxx 0.840 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | D | xxxxx 0.804 | D | xxxxx 0.804 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | E | xxxxx 0.970 | E | xxxxx 0.970 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | A | xxxxx 0.435 | A | xxxxx 0.435 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | D | xxxxx 0.821 | D | xxxxx 0.821 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | A | xxxxx 0.491 | A | xxxxx 0.491 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | A | xxxxx 0.521 | A | xxxxx 0.521 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | A | xxxxx 0.438 | A | xxxxx 0.438 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | B | 12.4 0.032 | B | 12.4 0.032 | + 0.000 D/V |
| # 10 Sunrise Blvd/White Rock Rd | A | xxxxx 0.454 | A | xxxxx 0.454 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | A | xxxxx 0.409 | A | xxxxx 0.409 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | A | xxxxx 0.435 | A | xxxxx 0.435 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | E | xxxxx 0.962 | E | xxxxx 0.962 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | C | 17.2 0.111 | C | 17.2 0.111 | + 0.000 D/V |
| # 15 Grant Line Rd/Douglas Rd | C | 22.4 0.251 | C | 22.4 0.251 | + 0.000 D/V |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | F | xxxxx 1.027 | F | xxxxx 1.027 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B | 18.9 0.479 | B | 18.9 0.479 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C | 21.7 0.712 | C | 21.7 0.712 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | C | 20.5 0.563 | C | 20.5 0.563 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | C | 23.2 0.797 | C | 23.2 0.797 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | B | 17.7 0.447 | B | 17.7 0.447 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | C | 31.0 0.947 | C | 31.0 0.947 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | B | 14.8 0.670 | B | 14.8 0.670 | + 0.000 D/V |

Mather Specific Plan
Baseline No Project
AM Peak Hour

| Intersection | Base | | Future | | Change in |
|----------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 24 Sunrise Blvd/US-50 EB Ramps | B 19.3 | 0.778 | B 19.3 | 0.778 | + 0.000 D/V |
| # 30 Zinfandel Rd/Douglas Rd | B 12.7 | 0.596 | B 12.7 | 0.596 | + 0.000 V/C |
| # 40 Mather Blvd/Douglas Rd | B 13.0 | 0.556 | B 13.0 | 0.556 | + 0.000 V/C |

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.840
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 143 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Movement: | | | | | | | | | | | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 3 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 1 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 48 | 1199 | 418 | 565 | 992 | 39 | 59 | 40 | 26 | 263 | 22 | 494 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 48 | 1199 | 418 | 565 | 992 | 39 | 59 | 40 | 26 | 263 | 22 | 494 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Volume: | 48 | 1199 | 418 | 565 | 992 | 39 | 59 | 40 | 26 | 263 | 22 | 494 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 48 | 1199 | 418 | 565 | 992 | 39 | 59 | 40 | 26 | 263 | 22 | 494 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 48 | 1199 | 418 | 565 | 992 | 39 | 59 | 40 | 26 | 263 | 22 | 494 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 2.89 | 0.11 | 1.00 | 0.61 | 0.39 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 4500 | 1500 | 3000 | 4330 | 170 | 1500 | 909 | 591 | 3000 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.27 | 0.28 | 0.19 | 0.23 | 0.23 | 0.04 | 0.04 | 0.04 | 0.09 | 0.01 | 0.33 |
| Crit Volume: | | | 418 | 283 | | | | | 66 | | | 494 |
| Crit Moves: | | | **** | **** | | | | | **** | | | **** |

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.804
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 116 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 103 | 1491 | 226 | 7 | 481 | 180 | 270 | 158 | 121 | 102 | 115 | 25 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 103 | 1491 | 226 | 7 | 481 | 180 | 270 | 158 | 121 | 102 | 115 | 25 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 103 | 1491 | 226 | 7 | 481 | 180 | 270 | 158 | 121 | 102 | 115 | 25 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 103 | 1491 | 226 | 7 | 481 | 180 | 270 | 158 | 121 | 102 | 115 | 25 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 103 | 1491 | 226 | 7 | 481 | 180 | 270 | 158 | 121 | 102 | 115 | 25 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.74 | 0.26 | 1.00 | 2.00 | 1.00 | 1.00 | 1.13 | 0.87 | 1.00 | 1.64 | 0.36 |
| Final Sat.: | 1500 | 2605 | 395 | 1500 | 3000 | 1500 | 1500 | 1699 | 1301 | 1500 | 2464 | 536 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.07 | 0.57 | 0.57 | 0.00 | 0.16 | 0.12 | 0.18 | 0.09 | 0.09 | 0.07 | 0.05 | 0.05 |
| Crit Volume: | | 859 | 7 | | 270 | | | 70 | | | 401 | |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.970
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 52 | 1429 | 18 | 114 | 495 | 207 | 217 | 143 | 30 | 29 | 401 | 254 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 52 | 1429 | 18 | 114 | 495 | 207 | 217 | 143 | 30 | 29 | 401 | 254 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 52 | 1429 | 18 | 114 | 495 | 207 | 217 | 143 | 30 | 29 | 401 | 254 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 52 | 1429 | 18 | 114 | 495 | 207 | 217 | 143 | 30 | 29 | 401 | 254 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 52 | 1429 | 18 | 114 | 495 | 207 | 217 | 143 | 30 | 29 | 401 | 254 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 2963 | 37 | 1500 | 3000 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.48 | 0.48 | 0.08 | 0.17 | 0.14 | 0.14 | 0.10 | 0.02 | 0.02 | 0.27 | 0.17 |
| Crit Volume: | | 724 | 114 | | 217 | | | 401 | | | 401 | |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)
Intersection #4 Routier Rd/Old Placerville Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.435
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 2 0 0 0 0 2 0 1
Volume Module:
Base Vol: 0 0 0 104 0 219 161 910 0 0 542 93
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 104 0 219 161 910 0 0 542 93
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 104 0 219 161 910 0 0 542 93
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 104 0 219 161 910 0 0 542 93
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 0 0 104 0 219 161 910 0 0 542 93
Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3100 0 1550 1550 3100 0 0 3100 1550
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.14 0.10 0.29 0.00 0.00 0.17 0.06
Crit Volume: 0 219 455 0
Crit Moves: **** **

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)
Intersection #5 Mather Field Rd/Rockingham Dr
Cycle (sec): 100 Critical Vol./Cap. (X): 0.821
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 127 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Split Phase Split Phase
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 1 0 1 0 3 0 1 1 1 0 0 1 0 1 0 0 1
Volume Module:
Base Vol: 225 735 14 82 1434 901 362 47 384 23 69 144
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 225 735 14 82 1434 901 362 47 384 23 69 144
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 225 735 14 82 1434 0 362 47 384 23 69 144
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 225 735 14 82 1434 0 362 47 384 23 69 144
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 225 735 14 82 1434 0 362 47 384 23 69 144
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.94 0.06 1.00 3.00 1.00 1.77 0.23 1.00 0.25 0.75 1.00
Final Sat.: 1500 4416 84 1500 4500 1500 2655 345 1500 375 1125 1500
Capacity Analysis Module:
Vol/Sat: 0.15 0.17 0.17 0.05 0.32 0.00 0.14 0.14 0.26 0.06 0.06 0.10
Crit Volume: 225 478 384
Crit Moves: **** **

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.491
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 0 1 1 0

Volume Module:
Base Vol: 170 312 35 7 68 13 18 184 20 72 500 229
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 170 312 35 7 68 13 18 184 20 72 500 229
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 170 312 35 7 68 13 18 184 20 72 500 229
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 170 312 35 7 68 13 18 184 20 72 500 229
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 170 312 35 7 68 13 18 184 20 72 500 229

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.90 0.10 1.00 0.84 0.16 1.00 1.80 0.20 1.00 1.37 0.63
Final Sat.: 1500 1349 151 1500 1259 241 1500 2706 294 1500 2058 942

Capacity Analysis Module:
Vol/Sat: 0.11 0.23 0.23 0.00 0.05 0.05 0.01 0.07 0.07 0.05 0.24 0.24
Crit Volume: 347 7 18 365
Crit Moves: **** **

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Zinfandel Dr/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.521
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 1 0 2 0 3 0 1 2 0 2 1 0 2 0 1 1 1

Volume Module:
Base Vol: 20 1020 52 497 1402 534 207 139 16 65 144 14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 20 1020 52 497 1402 534 207 139 16 65 144 14
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 20 1020 52 497 1402 534 207 139 16 65 144 14
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 20 1020 52 497 1402 534 207 139 16 65 144 14
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 20 1020 52 497 1402 534 207 139 16 65 144 14

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.85 0.15 2.00 3.00 1.00 2.00 2.69 0.31 2.00 2.00 1.00
Final Sat.: 3000 4282 218 3000 4500 1500 3000 4035 465 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.01 0.24 0.24 0.17 0.31 0.36 0.07 0.03 0.03 0.02 0.05 0.01
Crit Volume: 357 249 104 72
Crit Moves: **** **

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)
Intersection #8 Zinfandel Dr/International Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.438
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Lanes: 2 0 3 0 1 2 0 2 1 0 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 278 583 34 274 289 229 211 507 97 37 212 183
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 278 583 34 274 289 229 211 507 97 37 212 183
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 278 583 34 274 289 229 211 507 97 37 212 183
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 278 583 34 274 289 229 211 507 97 37 212 183
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 278 583 34 274 289 229 211 507 97 37 212 183
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 4500 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.09 0.13 0.02 0.09 0.10 0.15 0.07 0.17 0.06 0.01 0.07 0.12
Crit Volume: 139 229 106 183
Crit Moves: **** **** ****

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)
Average Delay (sec/veh): 0.7 Worst Case Level Of Service: B[12.4]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 0 0 1 1 0 0 1 0 1 0 0 1 0
Volume Module:
Base Vol: 1 15 3 0 0 4 7 190 0 4 296 1
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 15 3 0 0 4 7 190 0 4 296 1
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 15 3 0 0 4 7 190 0 4 296 1
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 1 15 3 0 0 4 7 190 0 4 296 1
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 xxxxx xxxxx 6.2 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxxx xxxxx 3.3 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx
Capacity Module:
Cnflct Vol: 511 509 190 xxxxx xxxxx 297 297 xxxxx xxxxx 190 xxxxx xxxxx
Potent Cap.: 477 470 857 xxxxx xxxxx 748 1276 xxxxx xxxxx 1396 xxxxx xxxxx
Move Cap.: 471 466 857 xxxxx xxxxx 748 1276 xxxxx xxxxx 1396 xxxxx xxxxx
Volume/Cap: 0.00 0.03 0.00 xxxxx xxxxx 0.01 0.01 xxxxx xxxxx 0.00 xxxxx xxxxx
Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxxx xxxxx xxxxx 0.0 0.0 xxxxx xxxxxx 0.0 xxxxx xxxxxx
Control Del: xxxxx xxxxx xxxxxx xxxxxx xxxxx 9.8 7.8 xxxxx xxxxxx 7.6 xxxxx xxxxxx
LOS by Move: * * * * * A A * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 503 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
SharedQueue: xxxxxx 0.1 xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx
Shrd ConDel: xxxxxx 12.4 xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx
Shared LOS: * B * * * * * * * * * *
ApproachDel: 12.4 9.8 xxxxxxx xxxxxxx
ApproachLOS: B A * *
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.454
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | | | | |
| Rights: | Include | | | Ovl | | | Ovl | | | Ovl | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 122 | 1084 | 324 | 281 | 932 | 183 | 80 | 53 | 28 | 306 | 235 | 133 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 122 | 1084 | 324 | 281 | 932 | 183 | 80 | 53 | 28 | 306 | 235 | 133 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 122 | 1084 | 324 | 281 | 932 | 183 | 80 | 53 | 28 | 306 | 235 | 133 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 122 | 1084 | 324 | 281 | 932 | 183 | 80 | 53 | 28 | 306 | 235 | 133 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 122 | 1084 | 324 | 281 | 932 | 183 | 80 | 53 | 28 | 306 | 235 | 133 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 3000 | 1500 | 3000 | 4500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.04 | 0.24 | 0.22 | 0.09 | 0.21 | 0.12 | 0.03 | 0.02 | 0.02 | 0.10 | 0.05 | 0.09 |
| Crit Volume: | 361 | | 141 | | 27 | | 153 | | | | | |
| Crit Moves: | **** | | **** | | **** | | **** | | | | | |

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.409
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | | | | |
| Rights: | Ovl | | | Include | | | Ovl | | | Ovl | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 265 | 1316 | 45 | 47 | 449 | 31 | 73 | 27 | 45 | 10 | 100 | 139 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 265 | 1316 | 45 | 47 | 449 | 31 | 73 | 27 | 45 | 10 | 100 | 139 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 265 | 1316 | 45 | 47 | 449 | 31 | 73 | 27 | 45 | 10 | 100 | 139 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 265 | 1316 | 45 | 47 | 449 | 31 | 73 | 27 | 45 | 10 | 100 | 139 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 265 | 1316 | 45 | 47 | 449 | 31 | 73 | 27 | 45 | 10 | 100 | 139 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 1500 | 1500 | 3000 | 3000 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.09 | 0.29 | 0.03 | 0.02 | 0.10 | 0.02 | 0.02 | 0.02 | 0.03 | 0.00 | 0.03 | 0.09 |
| Crit Volume: | 439 | | 0 | | 37 | | | | | | | |
| Crit Moves: | **** | | **** | | **** | | **** | | | | | |

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Sunrise Blvd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.435
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.962
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)
Intersection #16 Grant Line Rd/Jackson Rd(SR-16)
Cycle (sec): 100 Critical Vol./Cap. (X): 1.027
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0
Volume Module:
Base Vol: 5 371 25 21 186 41 46 326 0 135 745 100
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 5 371 25 21 186 41 46 326 0 135 745 100
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 5 371 25 21 186 41 46 326 0 135 745 100
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 5 371 25 21 186 41 46 326 0 135 745 100
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 5 371 25 21 186 41 46 326 0 135 745 100
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.01 0.93 0.06 0.08 0.75 0.17 1.00 1.00 0.00 1.00 0.88 0.12
Final Sat.: 19 1388 94 127 1125 248 1500 1500 0 1500 1322 178
Capacity Analysis Module:
Vol/Sat: 0.27 0.27 0.27 0.17 0.17 0.17 0.03 0.22 0.00 0.09 0.56 0.56
Crit Volume: 401 248 46 845
Crit Moves: **** **** **** ****

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #17 Bradshaw Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.479
Loss Time (sec): 6 Average Delay (sec/veh): 18.9
Optimal Cycle: 26 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 2 1 0 0 0 0 0 2
Volume Module:
Base Vol: 0 842 1217 0 834 528 0 0 0 733 0 823
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 842 1217 0 834 528 0 0 0 733 0 823
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 842 0 0 834 0 0 0 0 733 0 823
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 842 0 0 834 0 0 0 0 733 0 823
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 842 0 0 834 0 0 0 0 733 0 823
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 1.00 1.00 1.00 0.92 1.00 0.75
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 2.00
Final Sat.: 0 5187 0 0 5187 0 0 0 0 3502 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.00 0.00 0.16 0.00 0.00 0.00 0.00 0.21 0.00 0.29
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.34 0.00 0.00 0.34 0.00 0.00 0.00 0.00 0.60 0.00 0.60
Volume/Cap: 0.00 0.48 0.00 0.00 0.48 0.00 0.00 0.00 0.00 0.35 0.00 0.48
Delay/Veh: 0.0 26.6 0.0 0.0 26.5 0.0 0.0 0.0 0.0 10.0 0.0 11.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 26.6 0.0 0.0 26.5 0.0 0.0 0.0 0.0 10.0 0.0 11.2
LOS by Move: A C A A C A A A A A A B
HCM2kAvgQ: 0 8 0 0 8 0 0 0 0 6 0 8
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.712
Loss Time (sec): 6 Average Delay (sec/veh): 21.7
Optimal Cycle: 44 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table showing Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., and Final Volume for each approach and movement.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach and movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for each approach and movement.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.563
Loss Time (sec): 6 Average Delay (sec/veh): 20.5
Optimal Cycle: 31 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table showing Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., and Final Volume for each approach and movement.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach and movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for each approach and movement.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.797
Loss Time (sec): 6 Average Delay (sec/veh): 23.2
Optimal Cycle: 57 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 1 1 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 973 318 0 1240 215 222 0 1233 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 973 318 0 1240 215 222 0 1233 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 973 0 0 1240 0 222 0 1233 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 973 0 0 1240 0 222 0 1233 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 973 0 0 1240 0 222 0 1233 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.95 0.95 0.87 1.00 0.87 1.00 1.00 1.00
Lanes: 0.00 3.00 0.00 0.00 2.00 0.00 1.15 0.00 1.85 0.00 0.00 0.00
Final Sat.: 0 5187 0 0 3610 0 1896 0 3040 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.19 0.00 0.00 0.34 0.00 0.12 0.00 0.41 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.43 0.00 0.00 0.43 0.00 0.51 0.00 0.51 0.00 0.00 0.00
Volume/Cap: 0.00 0.44 0.00 0.00 0.80 0.00 0.23 0.00 0.80 0.00 0.00 0.00
Delay/Veh: 0.0 20.1 0.0 0.0 27.6 0.0 13.7 0.0 22.8 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 20.1 0.0 0.0 27.6 0.0 13.7 0.0 22.8 0.0 0.0 0.0
LOS by Move: A C A A C A B A C A A A
HCM2kAvgQ: 0 8 0 0 19 0 3 0 19 0 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.447
Loss Time (sec): 6 Average Delay (sec/veh): 17.7
Optimal Cycle: 25 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 1 1 0 0 0 0 1
Volume Module:
Base Vol: 0 920 495 0 743 393 0 0 0 752 0 196
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 920 495 0 743 393 0 0 0 752 0 196
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 920 0 0 743 0 0 0 0 752 0 196
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 920 0 0 743 0 0 0 0 752 0 196
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 920 0 0 743 0 0 0 0 752 0 196
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.95 0.95 1.00 1.00 1.00 0.92 1.00 0.85
Lanes: 0.00 3.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 5187 0 0 3610 0 0 0 0 3502 0 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.18 0.00 0.00 0.21 0.00 0.00 0.00 0.00 0.21 0.00 0.12
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.46 0.00 0.00 0.46 0.00 0.00 0.00 0.00 0.48 0.00 0.48
Volume/Cap: 0.00 0.39 0.00 0.00 0.45 0.00 0.00 0.00 0.00 0.45 0.00 0.25
Delay/Veh: 0.0 17.8 0.0 0.0 18.6 0.0 0.0 0.0 0.0 17.4 0.0 15.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 17.8 0.0 0.0 18.6 0.0 0.0 0.0 0.0 17.4 0.0 15.6
LOS by Move: A B A A B A A A A B A B
HCM2kAvgQ: 0 7 0 0 8 0 0 0 0 8 0 4

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #22 Zinfandel Dr/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.947
Loss Time (sec): 9 Average Delay (sec/veh): 31.0
Optimal Cycle: 134 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 1 0 0 0 1 1 0 1 1 0 0 0 0 2
Volume Module:
Base Vol: 0 1004 104 0 1380 145 486 775 935 0 0 154
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1004 104 0 1380 145 486 775 935 0 0 154
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1004 104 0 1380 0 486 775 935 0 0 154
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1004 104 0 1380 0 486 775 935 0 0 154
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1004 104 0 1380 0 486 775 935 0 0 154
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.90 0.90 1.00 0.95 0.95 0.63 0.63 0.63 1.00 1.00 0.75
Lanes: 0.00 3.62 0.38 0.00 2.00 0.00 1.00 1.36 1.64 0.00 0.00 2.00
Final Sat.: 0 6179 640 0 3610 0 1189 1617 1951 0 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.16 0.00 0.38 0.00 0.41 0.48 0.48 0.00 0.00 0.05
Crit Moves: ****
Green/Cycle: 0.00 0.40 0.40 0.00 0.40 0.00 0.51 0.51 0.51 0.00 0.00 0.51
Volume/Cap: 0.00 0.40 0.40 0.00 0.95 0.00 0.81 0.95 0.95 0.00 0.00 0.11
Delay/Veh: 0.0 21.3 21.3 0.0 41.8 0.0 22.5 32.5 32.5 0.0 0.0 12.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 21.3 21.3 0.0 41.8 0.0 22.5 32.5 32.5 0.0 0.0 12.9
LOS by Move: A C C A D A C C C A A B
HCM2kAvgQ: 0 7 7 0 27 0 15 23 23 0 0 1
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #23 Sunrise Blvd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.670
Loss Time (sec): 6 Average Delay (sec/veh): 14.8
Optimal Cycle: 39 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 2 1 0 0 0 0 0 2
Volume Module:
Base Vol: 0 1862 378 0 2331 1990 0 0 0 597 0 514
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1862 378 0 2331 1990 0 0 0 597 0 514
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1862 0 0 2331 0 0 0 0 597 0 514
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1862 0 0 2331 0 0 0 0 597 0 514
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1862 0 0 2331 0 0 0 0 597 0 514
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 1.00 1.00 1.00 0.92 1.00 0.75
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 2.00
Final Sat.: 0 5187 0 0 5187 0 0 0 0 3502 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.36 0.00 0.00 0.45 0.00 0.00 0.00 0.00 0.17 0.00 0.18
Crit Moves: ****
Green/Cycle: 0.00 0.67 0.00 0.00 0.67 0.00 0.00 0.00 0.00 0.27 0.00 0.27
Volume/Cap: 0.00 0.54 0.00 0.00 0.67 0.00 0.00 0.00 0.00 0.63 0.00 0.67
Delay/Veh: 0.0 8.6 0.0 0.0 10.4 0.0 0.0 0.0 0.0 33.5 0.0 34.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.6 0.0 0.0 10.4 0.0 0.0 0.0 0.0 33.5 0.0 34.9
LOS by Move: A A A A B A A A A C A C
HCM2kAvgQ: 0 11 0 0 16 0 0 0 0 9 0 9
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.778
Loss Time (sec): 6 Average Delay (sec/veh): 19.3
Optimal Cycle: 54 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 1 0 0 0 2 1 0 3 0 0 0 2 0 0 0 0 0 0
Volume Module:
Base Vol: 0 1238 499 0 2446 453 1049 0 737 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1238 499 0 2446 453 1049 0 737 0 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1238 0 0 2446 0 1049 0 737 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1238 0 0 2446 0 1049 0 737 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1238 0 0 2446 0 1049 0 737 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 0.92 1.00 0.75 1.00 1.00 1.00
Lanes: 0.00 4.00 0.00 0.00 3.00 0.00 3.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 6916 0 0 5187 0 5253 0 2842 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.18 0.00 0.00 0.47 0.00 0.20 0.00 0.26 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.61 0.00 0.00 0.61 0.00 0.33 0.00 0.33 0.00 0.00 0.00
Volume/Cap: 0.00 0.30 0.00 0.00 0.78 0.00 0.60 0.00 0.78 0.00 0.00 0.00
Delay/Veh: 0.0 9.5 0.0 0.0 15.9 0.0 28.3 0.0 34.1 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.5 0.0 0.0 15.9 0.0 28.3 0.0 34.1 0.0 0.0 0.0
LOS by Move: A A A A B A C A C A A A
HCM2kAvgQ: 0 5 0 0 22 0 10 0 13 0 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #30 Zinfandel Rd/Douglas Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.596
Loss Time (sec): 0 Average Delay (sec/veh): 12.7
Optimal Cycle: 0 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
Volume Module:
Base Vol: 20 0 35 15 0 127 307 101 10 15 202 160
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 20 0 35 15 0 127 307 101 10 15 202 160
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 20 0 35 15 0 127 307 101 10 15 202 160
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 20 0 35 15 0 127 307 101 10 15 202 160
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 20 0 35 15 0 127 307 101 10 15 202 160
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.36 0.00 0.64 0.11 0.00 0.89 0.74 0.24 0.02 0.04 0.54 0.42
Final Sat.: 198 0 347 64 0 544 515 170 17 29 397 314
Capacity Analysis Module:
Vol/Sat: 0.10 xxxx 0.10 0.23 xxxx 0.23 0.60 0.60 0.60 0.51 0.51 0.51
Crit Moves: **** **** **** ****
Delay/Veh: 9.2 0.0 9.2 9.7 0.0 9.7 14.7 14.7 14.7 12.2 12.2 12.2
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 9.2 0.0 9.2 9.7 0.0 9.7 14.7 14.7 14.7 12.2 12.2 12.2
LOS by Move: A * A A * A B B B B B
ApproachDel: 9.2 9.7 14.7 12.2
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 9.2 9.7 14.7 12.2
LOS by Appr: A A A B B
AllWayAvgQ: 0.1 0.1 0.1 0.2 0.2 0.2 1.3 1.3 1.3 0.9 0.9 0.9
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #40 Mather Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.556
Loss Time (sec): 0 Average Delay (sec/veh): 13.0
Optimal Cycle: 0 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | |
|-------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | | |
| Rights: | Include | | | Include | | | Include | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 0 | 158 | 207 | 0 | 70 | 200 | 50 | 0 | 60 | 230 | 58 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 158 | 207 | 0 | 70 | 200 | 50 | 0 | 60 | 230 | 58 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 158 | 207 | 0 | 70 | 200 | 50 | 0 | 60 | 230 | 58 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 158 | 207 | 0 | 70 | 200 | 50 | 0 | 60 | 230 | 58 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 158 | 207 | 0 | 70 | 200 | 50 | 0 | 60 | 230 | 58 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.80 | 0.20 | 0.00 | 0.17 | 0.66 | 0.17 |
| Final Sat.: | 0 | 0 | 579 | 497 | 0 | 597 | 463 | 116 | 0 | 108 | 414 | 104 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | xxxx | xxxx | 0.27 | 0.42 | xxxx | 0.12 | 0.43 | 0.43 | xxxx | 0.56 | 0.56 | 0.56 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| Delay/Veh: | 0.0 | 0.0 | 10.3 | 13.9 | 0.0 | 9.0 | 12.8 | 12.8 | 0.0 | 14.6 | 14.6 | 14.6 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 10.3 | 13.9 | 0.0 | 9.0 | 12.8 | 12.8 | 0.0 | 14.6 | 14.6 | 14.6 |
| LOS by Move: | * | * | B | B | * | A | B | B | * | B | B | B |
| ApproachDel: | 10.3 | | | 12.7 | | | 12.8 | | | 14.6 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 10.3 | | | 12.7 | | | 12.8 | | | 14.6 | | |
| LOS by Appr: | B | | | B | | | B | | | B | | |
| AllWayAvgQ: | 0.3 | 0.3 | 0.3 | 0.6 | 0.1 | 0.1 | 0.6 | 0.6 | 0.6 | 1.1 | 1.1 | 1.1 |

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Scenario: Scenario Report
Baseline PM No Project

Command: Baseline PM No Project
Volume: Baseline PM No Project
Geometry: Baseline No Project
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Baseline PM No Project

Mather Specific Plan
Baseline No Project
PM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 1 Bradshaw Rd/Old Placerville Rd | D xxxxx | 0.864 | D xxxxx | 0.864 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | D xxxxx | 0.842 | D xxxxx | 0.842 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | D xxxxx | 0.862 | D xxxxx | 0.862 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | A xxxxx | 0.577 | A xxxxx | 0.577 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | D xxxxx | 0.858 | D xxxxx | 0.858 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | A xxxxx | 0.484 | A xxxxx | 0.484 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | B xxxxx | 0.689 | B xxxxx | 0.689 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | A xxxxx | 0.563 | A xxxxx | 0.563 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | C 21.8 | 0.272 | C 21.8 | 0.272 | + 0.000 D/V |
| # 10 Sunrise Blvd/White Rock Rd | A xxxxx | 0.543 | A xxxxx | 0.543 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | A xxxxx | 0.531 | A xxxxx | 0.531 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | A xxxxx | 0.452 | A xxxxx | 0.452 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | D xxxxx | 0.849 | D xxxxx | 0.849 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | F 56.8 | 0.863 | F 56.8 | 0.863 | + 0.000 D/V |
| # 15 Grant Line Rd/Douglas Rd | C 16.5 | 0.070 | C 16.5 | 0.070 | + 0.000 D/V |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | F xxxxx | 1.121 | F xxxxx | 1.121 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B 18.6 | 0.522 | B 18.6 | 0.522 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C 22.6 | 0.713 | C 22.6 | 0.713 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | B 16.9 | 0.605 | B 16.9 | 0.605 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | B 17.4 | 0.569 | B 17.4 | 0.569 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | B 14.4 | 0.542 | B 14.4 | 0.542 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | C 27.4 | 0.865 | C 27.4 | 0.865 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | B 13.0 | 0.757 | B 13.0 | 0.757 | + 0.000 D/V |

Mather Specific Plan
Baseline No Project
PM Peak Hour

| Intersection | Base | | Future | | Change in |
|----------------------------------|-----------------|------------|-----------------|------------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 24 Sunrise Blvd/US-50 EB Ramps | B | 17.9 0.573 | B | 17.9 0.573 | + 0.000 D/V |
| # 30 Zinfandel Rd/Douglas Rd | D | 25.8 0.904 | D | 25.8 0.904 | + 0.000 V/C |
| # 40 Mather Blvd/Douglas Rd | C | 17.9 0.774 | C | 17.9 0.774 | + 0.000 V/C |

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.864
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 168 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Movement: | | | | | | | | | | | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 3 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 1 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 40 | 1147 | 355 | 360 | 1433 | 57 | 55 | 33 | 20 | 282 | 152 | 679 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 40 | 1147 | 355 | 360 | 1433 | 57 | 55 | 33 | 20 | 282 | 152 | 679 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Volume: | 40 | 1147 | 355 | 360 | 1433 | 57 | 55 | 33 | 20 | 282 | 152 | 679 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 40 | 1147 | 355 | 360 | 1433 | 57 | 55 | 33 | 20 | 282 | 152 | 679 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 40 | 1147 | 355 | 360 | 1433 | 57 | 55 | 33 | 20 | 282 | 152 | 679 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 2.89 | 0.11 | 1.00 | 0.62 | 0.38 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 4500 | 1500 | 3000 | 4328 | 172 | 1500 | 934 | 566 | 3000 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.25 | 0.24 | 0.12 | 0.33 | 0.33 | 0.04 | 0.04 | 0.04 | 0.09 | 0.10 | 0.45 |
| Crit Volume: | 382 | | | 180 | | | 55 | | | 679 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.842
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 145 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0

Volume Module:
Base Vol: 85 672 60 0 1455 196 202 72 205 246 111 10
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 85 672 60 0 1455 196 202 72 205 246 111 10
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 85 672 60 0 1455 196 202 72 205 246 111 10
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 85 672 60 0 1455 196 202 72 205 246 111 10
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 85 672 60 0 1455 196 202 72 205 246 111 10

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.84 0.16 1.00 2.00 1.00 1.00 1.00 1.00 1.00 1.83 0.17
Final Sat.: 1500 2754 246 1500 3000 1500 1500 1500 1500 2752 248

Capacity Analysis Module:
Vol/Sat: 0.06 0.24 0.24 0.00 0.49 0.13 0.13 0.05 0.14 0.16 0.04 0.04
Crit Volume: 85 728 205 246
Crit Moves: ****

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.862
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 165 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1

Volume Module:
Base Vol: 81 625 20 312 1546 306 245 384 92 38 194 125
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 81 625 20 312 1546 306 245 384 92 38 194 125
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 81 625 20 312 1546 306 245 384 92 38 194 125
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 81 625 20 312 1546 306 245 384 92 38 194 125
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 81 625 20 312 1546 306 245 384 92 38 194 125

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.94 0.06 1.00 2.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1500 2907 93 1500 3000 1500 1500 1500 1500 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.05 0.22 0.21 0.21 0.52 0.20 0.16 0.26 0.06 0.03 0.13 0.08
Crit Volume: 81 773 245 194
Crit Moves: ****

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Routier Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.577
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows including Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Mather Field Rd/Rockingham Dr

Cycle (sec): 100 Critical Vol./Cap. (X): 0.858
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 160 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows including Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.484
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 1 0

Volume Module:
Base Vol: 31 85 53 8 300 35 62 503 111 53 250 11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 31 85 53 8 300 35 62 503 111 53 250 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 31 85 53 8 300 35 62 503 111 53 250 11
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 31 85 53 8 300 35 62 503 111 53 250 11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 31 85 53 8 300 35 62 503 111 53 250 11

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.62 0.38 1.00 0.90 0.10 1.00 1.64 0.36 1.00 1.92 0.08
Final Sat.: 1500 924 576 1500 1343 157 1500 2458 542 1500 2874 126

Capacity Analysis Module:
Vol/Sat: 0.02 0.09 0.09 0.01 0.22 0.22 0.04 0.20 0.20 0.04 0.09 0.09
Crit Volume: 31 335 307 53
Crit Moves: **** **

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Zinfandel Dr/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.689
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 73 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 1 0 2 0 3 0 1 2 0 2 1 0 2 0 1 1 1

Volume Module:
Base Vol: 38 1530 30 184 1008 318 510 141 14 84 216 282
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 38 1530 30 184 1008 318 510 141 14 84 216 282
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 38 1530 30 184 1008 318 510 141 14 84 216 282
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 38 1530 30 184 1008 318 510 141 14 84 216 282
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 38 1530 30 184 1008 318 510 141 14 84 216 282

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.94 0.06 2.00 3.00 1.00 2.00 2.73 0.27 2.00 1.30 1.70
Final Sat.: 3000 4413 87 3000 4500 1500 3000 4094 406 3000 1952 2548

Capacity Analysis Module:
Vol/Sat: 0.01 0.35 0.35 0.06 0.22 0.21 0.17 0.03 0.03 0.03 0.11 0.11
Crit Volume: 520 92 255 166
Crit Moves: **** **

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)
Intersection #8 Zinfandel Dr/International Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.563
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Lanes: 2 0 3 0 1 2 0 2 1 0 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 86 305 18 180 663 205 369 194 302 35 582 328
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 86 305 18 180 663 205 369 194 302 35 582 328
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 86 305 18 180 663 205 369 194 302 35 582 328
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 86 305 18 180 663 205 369 194 302 35 582 328
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 86 305 18 180 663 205 369 194 302 35 582 328
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 2.29 0.71 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 4500 1500 3000 3437 1063 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.03 0.07 0.01 0.06 0.19 0.19 0.12 0.06 0.20 0.01 0.19 0.22
Crit Volume: 43 289 185 328
Crit Moves: **** **** **** ****

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)
Average Delay (sec/veh): 2.4 Worst Case Level Of Service: C [21.8]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0
Volume Module:
Base Vol: 1 3 4 3 70 29 3 600 7 16 304 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 3 4 3 70 29 3 600 7 16 304 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 3 4 3 70 29 3 600 7 16 304 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 1 3 4 3 70 29 3 600 7 16 304 0
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 995 946 604 949 949 304 304 xxxx xxxxx 607 xxxx xxxxx
Potent Cap.: 226 264 502 242 262 740 1268 xxxx xxxxx 981 xxxx xxxxx
Move Cap.: 169 259 502 235 258 740 1268 xxxx xxxxx 981 xxxx xxxxx
Volume/Cap: 0.01 0.01 0.01 0.01 0.27 0.04 0.00 xxxx xxxx 0.02 xxxx xxxx
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx 0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.8 xxxx xxxxx 8.7 xxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 314 xxxxx xxxx 315 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 0.1 xxxxx xxxxx 1.4 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx 16.8 xxxxx xxxxx 21.8 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * C * * C * * * * *
ApproachDel: 16.8 21.8 xxxxxxx xxxxxxx
ApproachLOS: C C * * *
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.543
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing traffic volumes for each approach and movement. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Volume, and Crit Moves for each approach.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.531
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing traffic volumes for each approach and movement. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Volume, and Crit Moves for each approach.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Sunrise Blvd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.452
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns for traffic volumes and 10 columns for adjustment factors (Growth, Initial, User, PHF, Reduct, Reduced, PCE, MLF, Final).

Saturation Flow Module table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.849
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 151 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns for traffic volumes and 10 columns for adjustment factors (Growth, Initial, User, PHF, Reduct, Reduced, PCE, MLF, Final).

Saturation Flow Module table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 Grant Line Rd/White Rock Rd

Average Delay (sec/veh): 18.4 Worst Case Level Of Service: F [56.8]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 5 337 0 0 371 44 333 0 27 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 5 337 0 0 371 44 333 0 27 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 5 337 0 0 371 44 333 0 27 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 5 337 0 0 371 44 333 0 27 0 0 0

Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2 xxxxx xxxxx xxxxx
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 xxxxx xxxxx xxxxx

Capacity Module:
Cnflct Vol: 415 xxxxx xxxxx xxxxx xxxxx xxxxx 740 740 393 xxxxx xxxxx xxxxx
Potent Cap.: 1155 xxxxx xxxxx xxxxx xxxxx xxxxx 387 347 660 xxxxx xxxxx xxxxx
Move Cap.: 1155 xxxxx xxxxx xxxxx xxxxx xxxxx 386 346 660 xxxxx xxxxx xxxxx
Volume/Cap: 0.00 xxxxx xxxxx xxxxx xxxxx xxxxx 0.86 0.00 0.04 xxxxx xxxxx xxxxx

Level Of Service Module:
2Way95thQ: 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: 8.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: A * * * * * * * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 398 xxxxx xxxxx xxxxx xxxxx
SharedQueue: 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.5 xxxxx xxxxx xxxxx xxxxx
Shrd ConDel: 8.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 56.8 xxxxx xxxxx xxxxx xxxxx
Shared LOS: A * * * * * * * * * * * * * * * * * * * * * *
ApproachDel: xxxxxxx xxxxxxx xxxxxxx 56.8 xxxxxxx
ApproachLOS: * * * * * * * * * * * * * * * * * * * * * *

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #15 Grant Line Rd/Douglas Rd

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C [16.5]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Ignore Include
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 79 285 0 0 379 55 2 0 86 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 79 285 0 0 379 55 2 0 86 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 79 285 0 0 379 55 2 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 79 285 0 0 379 55 2 0 0 0 0 0

Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2 xxxxx xxxxx xxxxx
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 xxxxx xxxxx xxxxx

Capacity Module:
Cnflct Vol: 434 xxxxx xxxxx xxxxx xxxxx xxxxx 850 850 407 xxxxx xxxxx xxxxx
Potent Cap.: 1136 xxxxx xxxxx xxxxx xxxxx xxxxx 334 300 649 xxxxx xxxxx xxxxx
Move Cap.: 1136 xxxxx xxxxx xxxxx xxxxx xxxxx 315 278 649 xxxxx xxxxx xxxxx
Volume/Cap: 0.07 xxxxx xxxxx xxxxx xxxxx xxxxx 0.01 0.00 0.00 xxxxx xxxxx xxxxx

Level Of Service Module:
2Way95thQ: 0.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: 8.4 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: A * * * * * * * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 315 xxxxx xxxxx xxxxx xxxxx
SharedQueue: 0.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx
Shrd ConDel: 8.4 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 16.5 xxxxx xxxxx xxxxx xxxxx
Shared LOS: A * * * * * * * * * * * * * * * * * * * * * *
ApproachDel: xxxxxxx xxxxxxx xxxxxxx 16.5 xxxxxxx
ApproachLOS: * * * * * * * * * * * * * * * * * * * * * *

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)
Intersection #16 Grant Line Rd/Jackson Rd(SR-16)
Cycle (sec): 100 Critical Vol./Cap. (X): 1.121
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0
Volume Module:
Base Vol: 1 201 47 73 333 46 45 919 4 58 356 24
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 201 47 73 333 46 45 919 4 58 356 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 201 47 73 333 46 45 919 4 58 356 24
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1 201 47 73 333 46 45 919 4 58 356 24
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 1 201 47 73 333 46 45 919 4 58 356 24
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.01 0.80 0.19 0.16 0.74 0.10 1.00 0.99 0.01 1.00 0.94 0.06
Final Sat.: 6 1211 283 242 1105 153 1500 1493 7 1500 1405 95
Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.30 0.30 0.30 0.03 0.62 0.62 0.04 0.25 0.25
Crit Volume: 249 452 923 58
Crit Moves: **** **** **** ****

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #17 Bradshaw Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.522
Loss Time (sec): 6 Average Delay (sec/veh): 18.6
Optimal Cycle: 28 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 2 1 0 0 0 0 0 2
Volume Module:
Base Vol: 0 775 1099 0 1125 1164 0 0 0 958 0 731
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 775 1099 0 1125 1164 0 0 0 958 0 731
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 775 0 0 1125 0 0 0 0 958 0 731
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 775 0 0 1125 0 0 0 0 958 0 731
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 775 0 0 1125 0 0 0 0 958 0 731
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 1.00 1.00 1.00 0.92 1.00 0.75
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 2.00
Final Sat.: 0 5187 0 0 5187 0 0 0 0 3502 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.15 0.00 0.00 0.22 0.00 0.00 0.00 0.00 0.27 0.00 0.26
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.42 0.00 0.00 0.42 0.00 0.00 0.00 0.00 0.52 0.00 0.52
Volume/Cap: 0.00 0.36 0.00 0.00 0.52 0.00 0.00 0.00 0.00 0.52 0.00 0.49
Delay/Veh: 0.0 20.2 0.0 0.0 22.0 0.0 0.0 0.0 0.0 15.8 0.0 15.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 20.2 0.0 0.0 22.0 0.0 0.0 0.0 0.0 15.8 0.0 15.5
LOS by Move: A C A A C A A A A B A B
HCM2kAvgQ: 0 6 0 0 10 0 0 0 0 10 0 8
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.713
Loss Time (sec): 6 Average Delay (sec/veh): 22.6
Optimal Cycle: 44 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol., Growth Adj., Initial Bse., User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.605
Loss Time (sec): 6 Average Delay (sec/veh): 16.9
Optimal Cycle: 33 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol., Growth Adj., Initial Bse., User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.569
Loss Time (sec): 6 Average Delay (sec/veh): 17.4
Optimal Cycle: 31 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 1 1 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 1648 819 0 652 210 564 0 540 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1648 819 0 652 210 564 0 540 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1648 0 0 652 0 564 0 540 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1648 0 0 652 0 564 0 540 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1648 0 0 652 0 564 0 540 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.95 0.95 0.90 1.00 0.90 1.00 1.00 1.00
Lanes: 0.00 3.00 0.00 0.00 2.00 0.00 1.51 0.00 1.49 0.00 0.00 0.00
Final Sat.: 0 5187 0 0 3610 0 2595 0 2557 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.32 0.00 0.00 0.18 0.00 0.22 0.00 0.21 0.00 0.00 0.00
Crit Moves: **** **** ****
Green/Cycle: 0.00 0.56 0.00 0.00 0.56 0.00 0.38 0.00 0.38 0.00 0.00 0.00
Volume/Cap: 0.00 0.57 0.00 0.00 0.32 0.00 0.57 0.00 0.55 0.00 0.00 0.00
Delay/Veh: 0.0 14.6 0.0 0.0 12.0 0.0 24.8 0.0 24.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 14.6 0.0 0.0 12.0 0.0 24.8 0.0 24.6 0.0 0.0 0.0
LOS by Move: A B A A B A C A C A A A
HCM2kAvgQ: 0 12 0 0 6 0 9 0 9 0 0 0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.542
Loss Time (sec): 6 Average Delay (sec/veh): 14.4
Optimal Cycle: 29 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 1 1 0 0 0 0 1
Volume Module:
Base Vol: 0 1722 1571 0 763 474 0 0 0 409 0 286
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1722 1571 0 763 474 0 0 0 409 0 286
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1722 0 0 763 0 0 0 0 409 0 286
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1722 0 0 763 0 0 0 0 409 0 286
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1722 0 0 763 0 0 0 0 409 0 286
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.95 0.95 1.00 1.00 1.00 0.92 1.00 0.85
Lanes: 0.00 3.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 5187 0 0 3610 0 0 0 0 3502 0 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.33 0.00 0.00 0.21 0.00 0.00 0.00 0.00 0.12 0.00 0.18
Crit Moves: **** ****
Green/Cycle: 0.00 0.61 0.00 0.00 0.61 0.00 0.00 0.00 0.00 0.33 0.00 0.33
Volume/Cap: 0.00 0.54 0.00 0.00 0.34 0.00 0.00 0.00 0.00 0.36 0.00 0.54
Delay/Veh: 0.0 11.4 0.0 0.0 9.6 0.0 0.0 0.0 0.0 25.8 0.0 28.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 11.4 0.0 0.0 9.6 0.0 0.0 0.0 0.0 25.8 0.0 28.7
LOS by Move: A B A A A A A A A C A C
HCM2kAvgQ: 0 11 0 0 6 0 0 0 0 5 0 8
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Zinfandel Dr/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.865
Loss Time (sec): 9 Average Delay (sec/veh): 27.4
Optimal Cycle: 88 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control Rights, Y+R, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 11 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sunrise Blvd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.757
Loss Time (sec): 6 Average Delay (sec/veh): 13.0
Optimal Cycle: 50 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control Rights, Y+R, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 11 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.573
Loss Time (sec): 6 Average Delay (sec/veh): 17.9
Optimal Cycle: 31 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 1 0 0 0 2 1 0 3 0 0 0 2 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #30 Zinfandel Rd/Douglas Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.904
Loss Time (sec): 0 Average Delay (sec/veh): 25.8
Optimal Cycle: 0 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
Volume Module:
Base Vol: 25 0 30 285 0 327 157 155 10 20 147 18
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 25 0 30 285 0 327 157 155 10 20 147 18
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 25 0 30 285 0 327 157 155 10 20 147 18
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 25 0 30 285 0 327 157 155 10 20 147 18
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 25 0 30 285 0 327 157 155 10 20 147 18
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.45 0.00 0.55 0.47 0.00 0.53 0.49 0.48 0.03 0.11 0.79 0.10
Final Sat.: 235 0 283 315 0 362 274 271 17 59 430 53
Capacity Analysis Module:
Vol/Sat: 0.11 xxxxx 0.11 0.90 xxxxx 0.90 0.57 0.57 0.57 0.34 0.34 0.34
Crit Moves: **** **** **** ****
Delay/Veh: 9.9 0.0 9.9 36.4 0.0 36.4 16.3 16.3 16.3 12.2 12.2 12.2
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 9.9 0.0 9.9 36.4 0.0 36.4 16.3 16.3 16.3 12.2 12.2 12.2
LOS by Move: A * A E * E C C C B B B
ApproachDel: 9.9 36.4 16.3 12.2
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 9.9 36.4 16.3 12.2
LOS by Appr: A E C B
AllWayAvgQ: 0.1 0.1 0.1 5.3 5.3 5.3 1.1 1.1 1.1 0.4 0.4 0.4

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
 Baseline No Project
 PM Peak Hour

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #40 Mather Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.774
 Loss Time (sec): 0 Average Delay (sec/veh): 17.9
 Optimal Cycle: 0 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 0 | 67 | 236 | 0 | 65 | 200 | 50 | 0 | 175 | 260 | 67 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 67 | 236 | 0 | 65 | 200 | 50 | 0 | 175 | 260 | 67 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 67 | 236 | 0 | 65 | 200 | 50 | 0 | 175 | 260 | 67 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 67 | 236 | 0 | 65 | 200 | 50 | 0 | 175 | 260 | 67 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 67 | 236 | 0 | 65 | 200 | 50 | 0 | 175 | 260 | 67 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.80 | 0.20 | 0.00 | 0.35 | 0.52 | 0.13 |
| Final Sat.: | 0 | 0 | 510 | 483 | 0 | 576 | 458 | 115 | 0 | 226 | 336 | 87 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | xxxx | xxxx | 0.13 | 0.49 | xxxx | 0.11 | 0.44 | 0.44 | xxxx | 0.77 | 0.77 | 0.77 |
| Crit Moves: | | | **** | **** | | | | | **** | | | |
| Delay/Veh: | 0.0 | 0.0 | 9.8 | 15.7 | 0.0 | 9.3 | 13.1 | 13.1 | 0.0 | 23.5 | 23.5 | 23.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 9.8 | 15.7 | 0.0 | 9.3 | 13.1 | 13.1 | 0.0 | 23.5 | 23.5 | 23.5 |
| LOS by Move: | * | * | A | C | * | A | B | B | * | C | C | C |
| ApproachDel: | 9.8 | | | 14.3 | | | | 13.1 | | | 23.5 | |
| Delay Adj: | 1.00 | | | 1.00 | | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | 9.8 | | | 14.3 | | | | 13.1 | | | 23.5 | |
| LOS by Appr: | A | | | B | | | | B | | | C | |
| AllWayAvgQ: | 0.1 | 0.1 | 0.1 | 0.8 | 0.1 | 0.1 | 0.7 | 0.7 | 0.7 | 2.7 | 2.7 | 2.7 |

Note: Queue reported is the number of cars per lane.

03 Baseline Plus Project

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Scenario: Scenario Report
Baseline AM Plus Project

Command: Baseline AM Plus Project
Volume: Baseline AM Plus Project
Geometry: Baseline Plus Project
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Baseline AM Plus Project

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 1 Bradshaw Rd/Old Placerville Rd | F xxxxx | 1.044 | F xxxxx | 1.044 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | D xxxxx | 0.826 | D xxxxx | 0.826 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | F xxxxx | 1.041 | F xxxxx | 1.041 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | A xxxxx | 0.576 | A xxxxx | 0.576 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | F xxxxx | 1.021 | F xxxxx | 1.021 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | B xxxxx | 0.696 | B xxxxx | 0.696 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | B xxxxx | 0.647 | B xxxxx | 0.647 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | B xxxxx | 0.665 | B xxxxx | 0.665 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | F OVRFL | 1.232 | F OVRFL | 1.232 | + 0.000 D/V |
| # 10 Sunrise Blvd/White Rock Rd | A xxxxx | 0.464 | A xxxxx | 0.464 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | A xxxxx | 0.478 | A xxxxx | 0.478 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | A xxxxx | 0.461 | A xxxxx | 0.461 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | F xxxxx | 1.021 | F xxxxx | 1.021 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | C 18.8 | 0.122 | C 18.8 | 0.122 | + 0.000 D/V |
| # 15 Grant Line Rd/Douglas Rd | E 42.9 | 0.462 | E 42.9 | 0.462 | + 0.000 D/V |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | E xxxxx | 0.991 | E xxxxx | 0.991 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B 19.7 | 0.526 | B 19.7 | 0.526 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C 25.0 | 0.842 | C 25.0 | 0.842 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | C 21.5 | 0.656 | C 21.5 | 0.656 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | D 48.0 | 1.036 | D 48.0 | 1.036 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | C 20.1 | 0.585 | C 20.1 | 0.585 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | E 73.6 | 1.157 | E 73.6 | 1.157 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | B 14.7 | 0.666 | B 14.7 | 0.666 | + 0.000 D/V |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

| Intersection | Base | | Future | | Change in |
|-----------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 24 Sunrise Blvd/US-50 EB Ramps | C 20.4 | 0.793 | C 20.4 | 0.793 | + 0.000 D/V |
| # 29 Excelsior Rd/Kiefer Blvd | A 8.6 | 0.316 | A 8.6 | 0.316 | + 0.000 V/C |
| # 30 Zinfandel Rd/Douglas Rd | F 691.2 | 2.946 | F 691.2 | 2.946 | + 0.000 V/C |
| # 31 Zinfandel Rd/Chrysanthy Blvd | F 252.8 | 1.673 | F 252.8 | 1.673 | + 0.000 V/C |
| # 40 Mather Blvd/Douglas Rd | F 346.2 | 2.348 | F 346.2 | 2.348 | + 0.000 V/C |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.044
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 3 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 1 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 48 | 1145 | 618 | 653 | 988 | 39 | 59 | 40 | 26 | 300 | 22 | 556 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 48 | 1145 | 618 | 653 | 988 | 39 | 59 | 40 | 26 | 300 | 22 | 556 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Volume: | 48 | 1145 | 618 | 653 | 988 | 39 | 59 | 40 | 26 | 300 | 22 | 556 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 48 | 1145 | 618 | 653 | 988 | 39 | 59 | 40 | 26 | 300 | 22 | 556 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 48 | 1145 | 618 | 653 | 988 | 39 | 59 | 40 | 26 | 300 | 22 | 556 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 2.89 | 0.11 | 1.00 | 0.61 | 0.39 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 4500 | 1500 | 3000 | 4329 | 171 | 1500 | 909 | 591 | 3000 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.25 | 0.41 | 0.22 | 0.23 | 0.23 | 0.04 | 0.04 | 0.04 | 0.10 | 0.01 | 0.37 |
| Crit Volume: | | | 618 | 327 | | | 66 | | | 556 | | |
| Crit Moves: | | | **** | **** | | | **** | | | **** | | |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.826
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 131 Level Of Service: D

| Approach: | North Bound | South Bound | East Bound | West Bound |
|-------------|-------------|-------------|-------------|-------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Protected | Protected | Protected | Protected |
| Rights: | Include | Include | Include | Include |
| Min. Green: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Y+R: | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 |
| Lanes: | 1 0 1 1 0 | 1 0 2 0 1 | 1 0 1 1 0 | 1 0 1 1 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 73 | 1564 | 248 | 8 | 468 | 190 | 253 | 171 | 121 | 108 | 118 | 26 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 73 | 1564 | 248 | 8 | 468 | 190 | 253 | 171 | 121 | 108 | 118 | 26 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 73 | 1564 | 248 | 8 | 468 | 190 | 253 | 171 | 121 | 108 | 118 | 26 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 73 | 1564 | 248 | 8 | 468 | 190 | 253 | 171 | 121 | 108 | 118 | 26 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 73 | 1564 | 248 | 8 | 468 | 190 | 253 | 171 | 121 | 108 | 118 | 26 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.73 | 0.27 | 1.00 | 2.00 | 1.00 | 1.00 | 1.17 | 0.83 | 1.00 | 1.64 | 0.36 |
| Final Sat.: | 1500 | 2589 | 411 | 1500 | 3000 | 1500 | 1500 | 1757 | 1243 | 1500 | 2458 | 542 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.05 | 0.60 | 0.60 | 0.01 | 0.16 | 0.13 | 0.17 | 0.10 | 0.10 | 0.07 | 0.05 | 0.05 |
| Crit Volume: | 906 | 8 | 253 | 72 | | | | | | | | |
| Crit Moves: | **** | **** | **** | **** | | | | | | | | |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 1.041
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | South Bound | East Bound | West Bound |
|-------------|-------------|-------------|-------------|-------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Protected | Protected | Protected | Protected |
| Rights: | Include | Include | Include | Include |
| Min. Green: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Y+R: | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 |
| Lanes: | 1 0 1 1 0 | 1 0 2 0 1 | 1 0 1 0 1 | 1 0 1 0 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 15 | 1538 | 18 | 109 | 494 | 204 | 227 | 202 | 40 | 29 | 448 | 189 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 15 | 1538 | 18 | 109 | 494 | 204 | 227 | 202 | 40 | 29 | 448 | 189 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 15 | 1538 | 18 | 109 | 494 | 204 | 227 | 202 | 40 | 29 | 448 | 189 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 15 | 1538 | 18 | 109 | 494 | 204 | 227 | 202 | 40 | 29 | 448 | 189 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 15 | 1538 | 18 | 109 | 494 | 204 | 227 | 202 | 40 | 29 | 448 | 189 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 2965 | 35 | 1500 | 3000 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.01 | 0.52 | 0.52 | 0.07 | 0.16 | 0.14 | 0.15 | 0.13 | 0.03 | 0.02 | 0.30 | 0.13 |
| Crit Volume: | 778 | 109 | 227 | 448 | | | | | | | | |
| Crit Moves: | **** | **** | **** | **** | | | | | | | | |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Routier Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.576
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 0 | 0 | 465 | 0 | 180 | 166 | 1322 | 0 | 0 | 700 | 259 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 465 | 0 | 180 | 166 | 1322 | 0 | 0 | 700 | 259 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 465 | 0 | 180 | 166 | 1322 | 0 | 0 | 700 | 259 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 465 | 0 | 180 | 166 | 1322 | 0 | 0 | 700 | 259 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 0 | 0 | 465 | 0 | 180 | 166 | 1322 | 0 | 0 | 700 | 259 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 0 | 0 | 0 | 3100 | 0 | 1550 | 1550 | 3100 | 0 | 0 | 3100 | 1550 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 | 0.12 | 0.11 | 0.43 | 0.00 | 0.00 | 0.23 | 0.17 |
| Crit Volume: | 0 | 0 | 0 | 233 | 0 | 661 | 661 | 0 | 0 | 0 | 0 | 144 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Mather Field Rd/Rockingham Dr

Cycle (sec): 100 Critical Vol./Cap. (X): 1.021
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 1 | 0 | 3 | 0 | 1 | 1 | 0 | 1 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 254 | 799 | 14 | 82 | 1913 | 1225 | 461 | 47 | 496 | 23 | 69 | 144 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 254 | 799 | 14 | 82 | 1913 | 1225 | 461 | 47 | 496 | 23 | 69 | 144 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 254 | 799 | 14 | 82 | 1913 | 0 | 461 | 47 | 496 | 23 | 69 | 144 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 254 | 799 | 14 | 82 | 1913 | 0 | 461 | 47 | 496 | 23 | 69 | 144 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 254 | 799 | 14 | 82 | 1913 | 0 | 461 | 47 | 496 | 23 | 69 | 144 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.95 | 0.05 | 1.00 | 3.00 | 1.00 | 1.81 | 0.19 | 1.00 | 0.25 | 0.75 | 1.00 |
| Final Sat.: | 1500 | 4423 | 77 | 1500 | 4500 | 1500 | 2722 | 278 | 1500 | 375 | 1125 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.17 | 0.18 | 0.18 | 0.05 | 0.43 | 0.00 | 0.17 | 0.17 | 0.33 | 0.06 | 0.06 | 0.10 |
| Crit Volume: | 254 | 638 | 638 | 638 | 496 | 496 | 496 | 144 | 144 | 144 | 144 | 144 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.696
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 75 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:
Base Vol: 102 554 59 8 80 10 29 269 12 94 556 232
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 102 554 59 8 80 10 29 269 12 94 556 232
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 102 554 59 8 80 10 29 269 12 94 556 232
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 102 554 59 8 80 10 29 269 12 94 556 232
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 102 554 59 8 80 10 29 269 12 94 556 232

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.90 0.10 1.00 0.89 0.11 1.00 1.91 0.09 1.00 1.41 0.59
Final Sat.: 1500 1356 144 1500 1333 167 1500 2872 128 1500 2117 883

Capacity Analysis Module:
Vol/Sat: 0.07 0.41 0.41 0.01 0.06 0.06 0.02 0.09 0.09 0.06 0.26 0.26
Crit Volume: 613 8 29 394
Crit Moves: **** **** **** ****

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Zinfandel Dr/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.647
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 65 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 2 | 0 | 3 | 2 | 0 | 2 | 2 | 0 | 1 |

Volume Module:
Base Vol: 20 1524 85 456 2158 560 237 152 16 86 174 9
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 20 1524 85 456 2158 560 237 152 16 86 174 9
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 20 1524 85 456 2158 560 237 152 16 86 174 9
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 20 1524 85 456 2158 560 237 152 16 86 174 9
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 20 1524 85 456 2158 560 237 152 16 86 174 9

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.84 0.16 2.00 3.00 1.00 2.00 2.71 0.29 2.00 2.00 1.00
Final Sat.: 3000 4262 238 3000 4500 1500 3000 4071 429 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.01 0.36 0.36 0.15 0.48 0.37 0.08 0.04 0.04 0.03 0.06 0.01
Crit Volume: 536 228 119 87
Crit Moves: **** **** **** ****

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Zinfandel Dr/International Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.665
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 68 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 2 1 0 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 406 1127 81 272 1124 167 159 511 328 71 286 228
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 406 1127 81 272 1124 167 159 511 328 71 286 228
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 406 1127 81 272 1124 167 159 511 328 71 286 228
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 406 1127 81 272 1124 167 159 511 328 71 286 228
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 406 1127 81 272 1124 167 159 511 328 71 286 228
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 2.61 0.39 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 4500 1500 3000 3918 582 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.14 0.25 0.05 0.09 0.29 0.29 0.05 0.17 0.22 0.02 0.10 0.15
Crit Volume: 203 430 328 36
Crit Moves: ****

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 0 1 0
Volume Module:
Base Vol: 1 356 6 43 241 158 127 185 0 4 244 102
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 356 6 43 241 158 127 185 0 4 244 102
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 356 6 43 241 158 127 185 0 4 244 102
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 1 356 6 43 241 158 127 185 0 4 244 102
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 942 793 185 923 742 295 346 xxxx xxxxx 185 xxxx xxxxx
Potent Cap.: 245 323 862 252 346 749 1224 xxxx xxxxx 1402 xxxx xxxxx
Move Cap.: 64 289 862 0 309 749 1224 xxxx xxxxx 1402 xxxx xxxxx
Volume/Cap: 0.02 1.23 0.01 xxxx 0.78 0.21 0.10 xxxx xxxx 0.00 xxxx xxxx
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.3 xxxx xxxxx 0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.3 xxxx xxxxx 7.6 xxxx xxxxx
LOS by Move: * * * * * A * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 289 xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 17.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx 176 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * F * * * * * * * *
ApproachDel: 176.0 xxxxxx xxxxxx xxxxxx
ApproachLOS: F F * *
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.464
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | | | | |
| Rights: | Include | | | Ovl | | | Ovl | | | Ovl | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 108 | 1039 | 370 | 270 | 1066 | 188 | 80 | 47 | 28 | 336 | 201 | 109 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 108 | 1039 | 370 | 270 | 1066 | 188 | 80 | 47 | 28 | 336 | 201 | 109 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 108 | 1039 | 370 | 270 | 1066 | 188 | 80 | 47 | 28 | 336 | 201 | 109 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 108 | 1039 | 370 | 270 | 1066 | 188 | 80 | 47 | 28 | 336 | 201 | 109 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 108 | 1039 | 370 | 270 | 1066 | 188 | 80 | 47 | 28 | 336 | 201 | 109 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 3000 | 1500 | 3000 | 4500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.04 | 0.23 | 0.25 | 0.09 | 0.24 | 0.13 | 0.03 | 0.02 | 0.02 | 0.11 | 0.04 | 0.07 |
| Crit Volume: | 370 | 135 | 24 | 168 | 223 | 103 | 392 | 0 | 103 | 223 | 103 | 223 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.478
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | | | | |
| Rights: | Ovl | | | Include | | | Ovl | | | Ovl | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 302 | 1175 | 48 | 36 | 505 | 179 | 205 | 48 | 87 | 46 | 323 | 223 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 302 | 1175 | 48 | 36 | 505 | 179 | 205 | 48 | 87 | 46 | 323 | 223 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 302 | 1175 | 48 | 36 | 505 | 179 | 205 | 48 | 87 | 46 | 323 | 223 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 302 | 1175 | 48 | 36 | 505 | 179 | 205 | 48 | 87 | 46 | 323 | 223 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 302 | 1175 | 48 | 36 | 505 | 179 | 205 | 48 | 87 | 46 | 323 | 223 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 1500 | 1500 | 3000 | 3000 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.10 | 0.26 | 0.03 | 0.01 | 0.11 | 0.12 | 0.07 | 0.03 | 0.06 | 0.02 | 0.11 | 0.15 |
| Crit Volume: | 392 | 103 | 223 | 103 | 223 | 103 | 392 | 0 | 103 | 223 | 103 | 223 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Sunrise Blvd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.461
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 132 | 898 | 19 | 22 | 448 | 181 | 64 | 11 | 78 | 22 | 7 | 79 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 132 | 898 | 19 | 22 | 448 | 181 | 64 | 11 | 78 | 22 | 7 | 79 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 132 | 898 | 19 | 22 | 448 | 181 | 64 | 11 | 78 | 22 | 7 | 79 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 132 | 898 | 19 | 22 | 448 | 181 | 64 | 11 | 78 | 22 | 7 | 79 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 132 | 898 | 19 | 22 | 448 | 181 | 64 | 11 | 78 | 22 | 7 | 79 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.42 | 0.58 | 0.42 | 0.07 | 0.51 | 0.76 | 0.24 | 1.00 |
| Final Sat.: | 1500 | 3000 | 1500 | 3000 | 2137 | 863 | 627 | 108 | 765 | 1138 | 362 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.09 | 0.30 | 0.01 | 0.01 | 0.21 | 0.21 | 0.10 | 0.10 | 0.10 | 0.02 | 0.02 | 0.05 |
| Crit Volume: | 449 | | 11 | | | | 153 | | | 79 | | |
| Crit Moves: | **** | | **** | | | | **** | | | **** | | |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 1.021
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 13 | 732 | 37 | 149 | 292 | 61 | 69 | 189 | 6 | 18 | 545 | 190 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 13 | 732 | 37 | 149 | 292 | 61 | 69 | 189 | 6 | 18 | 545 | 190 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 13 | 732 | 37 | 149 | 292 | 61 | 69 | 189 | 6 | 18 | 545 | 190 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 13 | 732 | 37 | 149 | 292 | 61 | 69 | 189 | 6 | 18 | 545 | 190 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 13 | 732 | 37 | 149 | 292 | 61 | 69 | 189 | 6 | 18 | 545 | 190 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.95 | 0.05 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 1428 | 72 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.01 | 0.51 | 0.51 | 0.10 | 0.19 | 0.04 | 0.05 | 0.13 | 0.00 | 0.01 | 0.36 | 0.13 |
| Crit Volume: | 769 | 149 | | 69 | | | | | | 545 | | |
| Crit Moves: | **** | **** | | **** | | | | | | **** | | |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 Grant Line Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.991
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 5 | 340 | 14 | 11 | 164 | 37 | 68 | 369 | 0 | 128 | 747 | 100 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 5 | 340 | 14 | 11 | 164 | 37 | 68 | 369 | 0 | 128 | 747 | 100 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 5 | 340 | 14 | 11 | 164 | 37 | 68 | 369 | 0 | 128 | 747 | 100 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 5 | 340 | 14 | 11 | 164 | 37 | 68 | 369 | 0 | 128 | 747 | 100 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 5 | 340 | 14 | 11 | 164 | 37 | 68 | 369 | 0 | 128 | 747 | 100 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.01 | 0.95 | 0.04 | 0.05 | 0.78 | 0.17 | 1.00 | 1.00 | 0.00 | 1.00 | 0.88 | 0.12 |
| Final Sat.: | 21 | 1421 | 58 | 78 | 1160 | 262 | 1500 | 1500 | 0 | 1500 | 1323 | 177 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.24 | 0.24 | 0.24 | 0.14 | 0.14 | 0.14 | 0.05 | 0.25 | 0.00 | 0.09 | 0.56 | 0.56 |
| Crit Volume: | | 359 | | | 212 | 68 | | | | | | 847 |
| Crit Moves: | **** | | | **** | | **** | | | | | | **** |

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 Bradshaw Rd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.526
Loss Time (sec): 6 Average Delay (sec/veh): 19.7
Optimal Cycle: 28 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 987 | 1259 | 0 | 982 | 455 | 0 | 0 | 0 | 641 | 0 | 867 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 987 | 1259 | 0 | 982 | 455 | 0 | 0 | 0 | 641 | 0 | 867 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 987 | 0 | 0 | 982 | 0 | 0 | 0 | 0 | 641 | 0 | 867 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 987 | 0 | 0 | 982 | 0 | 0 | 0 | 0 | 641 | 0 | 867 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 987 | 0 | 0 | 982 | 0 | 0 | 0 | 0 | 641 | 0 | 867 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.91 | 0.91 | 1.00 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.75 |
| Lanes: | 0.00 | 3.00 | 0.00 | 0.00 | 3.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 |
| Final Sat.: | 0 | 5187 | 0 | 0 | 5187 | 0 | 0 | 0 | 0 | 3502 | 0 | 2842 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.19 | 0.00 | 0.00 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.31 |
| Crit Moves: | **** | | | **** | | | | | | | | **** |
| Green/Cycle: | 0.00 | 0.36 | 0.00 | 0.00 | 0.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.58 | 0.00 | 0.58 |
| Volume/Cap: | 0.00 | 0.53 | 0.00 | 0.00 | 0.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.00 | 0.53 |
| Delay/Veh: | 0.0 | 25.6 | 0.0 | 0.0 | 25.5 | 0.0 | 0.0 | 0.0 | 0.0 | 10.9 | 0.0 | 13.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 25.6 | 0.0 | 0.0 | 25.5 | 0.0 | 0.0 | 0.0 | 0.0 | 10.9 | 0.0 | 13.0 |
| LOS by Move: | A | C | A | A | C | A | A | A | A | B | A | B |
| HCM2kAvgQ: | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 5 | 0 | 9 |

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.842
Loss Time (sec): 6 Average Delay (sec/veh): 25.0
Optimal Cycle: 69 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 2 1 0 2 0 0 0 2 0 0 0 0 0 0
Volume Module:
Base Vol: 0 1482 842 0 930 475 578 0 1438 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1482 842 0 930 475 578 0 1438 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1482 0 0 930 0 578 0 1438 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1482 0 0 930 0 578 0 1438 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1482 0 0 930 0 578 0 1438 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 0.92 1.00 0.75 1.00 1.00 1.00
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 2.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 5187 0 0 5187 0 3502 0 2842 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.29 0.00 0.00 0.18 0.00 0.17 0.00 0.51 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.34 0.00 0.00 0.34 0.00 0.60 0.00 0.60 0.00 0.00 0.00
Volume/Cap: 0.00 0.84 0.00 0.00 0.53 0.00 0.27 0.00 0.84 0.00 0.00 0.00
Delay/Veh: 0.0 34.4 0.0 0.0 26.9 0.0 9.6 0.0 20.1 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 34.4 0.0 0.0 26.9 0.0 9.6 0.0 20.1 0.0 0.0 0.0
LOS by Move: A C A A C A A A C A A A
HCM2kAvgQ: 0 18 0 0 9 0 4 0 23 0 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.656
Loss Time (sec): 6 Average Delay (sec/veh): 21.5
Optimal Cycle: 38 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 1 0 1 0 0 0
Volume Module:
Base Vol: 0 705 482 0 791 404 0 0 0 1102 0 158
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 705 482 0 791 404 0 0 0 1102 0 158
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 705 0 0 791 0 0 0 0 1102 0 158
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 705 0 0 791 0 0 0 0 1102 0 158
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 705 0 0 791 0 0 0 0 1102 0 158
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 1.00 1.00 0.94 1.00 0.94
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 1.78 0.00 0.22
Final Sat.: 0 3610 0 0 3610 0 0 0 0 3173 0 398
Capacity Analysis Module:
Vol/Sat: 0.00 0.20 0.00 0.00 0.22 0.00 0.00 0.00 0.00 0.35 0.00 0.40
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.33 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.61 0.00 0.61
Volume/Cap: 0.00 0.58 0.00 0.00 0.66 0.00 0.00 0.00 0.00 0.57 0.00 0.66
Delay/Veh: 0.0 28.3 0.0 0.0 29.7 0.0 0.0 0.0 0.0 12.3 0.0 13.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 28.3 0.0 0.0 29.7 0.0 0.0 0.0 0.0 12.3 0.0 13.7
LOS by Move: A C A A C A A C A A A B A B
HCM2kAvgQ: 0 10 0 0 12 0 0 0 0 12 0 15

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 1.036
Loss Time (sec): 6 Average Delay (sec/veh): 48.0
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for volume and 11 columns for adjustment factors (Base Vol, Growth Adj, etc.).

Saturation Flow Module table with 11 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.585
Loss Time (sec): 6 Average Delay (sec/veh): 20.1
Optimal Cycle: 32 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for volume and 11 columns for adjustment factors (Base Vol, Growth Adj, etc.).

Saturation Flow Module table with 11 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #22 Zinfandel Dr/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 1.157
Loss Time (sec): 9 Average Delay (sec/veh): 73.6
Optimal Cycle: 180 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 1 0 0 0 1 1 0 1 1 0 0 0 0 2
Volume Module:
Base Vol: 0 1241 396 0 1968 77 455 772 1095 0 0 131
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1241 396 0 1968 77 455 772 1095 0 0 131
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1241 396 0 1968 0 455 772 1095 0 0 131
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1241 396 0 1968 0 455 772 1095 0 0 131
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1241 396 0 1968 0 455 772 1095 0 0 131
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.88 1.00 0.95 0.95 0.65 0.65 0.65 1.00 1.00 0.75
Lanes: 0.00 3.03 0.97 0.00 2.00 0.00 1.00 1.24 1.76 0.00 0.00 2.00
Final Sat.: 0 5054 1613 0 3610 0 1226 1521 2157 0 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.25 0.25 0.00 0.55 0.00 0.37 0.51 0.51 0.00 0.00 0.05
Crit Moves: **** ****
Green/Cycle: 0.00 0.47 0.47 0.00 0.47 0.00 0.44 0.44 0.44 0.00 0.00 0.44
Volume/Cap: 0.00 0.52 0.52 0.00 1.16 0.00 0.85 1.16 1.16 0.00 0.00 0.11
Delay/Veh: 0.0 18.7 18.7 0.0 104 0.0 27.7 105 104.8 0.0 0.0 16.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 18.7 18.7 0.0 104 0.0 27.7 105 104.8 0.0 0.0 16.5
LOS by Move: A B B A F A C F A A B
HCM2kAvgQ: 0 10 10 0 52 0 16 34 34 0 0 1
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #23 Sunrise Blvd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.666
Loss Time (sec): 6 Average Delay (sec/veh): 14.7
Optimal Cycle: 39 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 2 1 0 0 0 0 0 2
Volume Module:
Base Vol: 0 1914 371 0 2325 2017 0 0 0 623 0 488
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1914 371 0 2325 2017 0 0 0 623 0 488
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1914 0 0 2325 0 0 0 0 623 0 488
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1914 0 0 2325 0 0 0 0 623 0 488
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1914 0 0 2325 0 0 0 0 623 0 488
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 1.00 1.00 1.00 0.92 1.00 0.75
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 2.00
Final Sat.: 0 5187 0 0 5187 0 0 0 0 3502 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.37 0.00 0.00 0.45 0.00 0.00 0.00 0.00 0.18 0.00 0.17
Crit Moves: **** ****
Green/Cycle: 0.00 0.67 0.00 0.00 0.67 0.00 0.00 0.00 0.00 0.27 0.00 0.27
Volume/Cap: 0.00 0.55 0.00 0.00 0.67 0.00 0.00 0.00 0.00 0.67 0.00 0.64
Delay/Veh: 0.0 8.7 0.0 0.0 10.2 0.0 0.0 0.0 0.0 34.5 0.0 34.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.7 0.0 0.0 10.2 0.0 0.0 0.0 0.0 34.5 0.0 34.3
LOS by Move: A A A A B A A A A C A C
HCM2kAvgQ: 0 11 0 0 16 0 0 0 0 10 0 8
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.793
Loss Time (sec): 6 Average Delay (sec/veh): 20.4
Optimal Cycle: 57 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 1 0 0 0 2 1 0 3 0 0 0 2 0 0 0 0 0 0
Volume Module:
Base Vol: 0 1116 537 0 2487 453 1198 0 757 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1116 537 0 2487 453 1198 0 757 0 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1116 0 0 2487 0 1198 0 757 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1116 0 0 2487 0 1198 0 757 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1116 0 0 2487 0 1198 0 757 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 0.92 1.00 0.75 1.00 1.00 1.00
Lanes: 0.00 4.00 0.00 0.00 3.00 0.00 3.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 6916 0 0 5187 0 5253 0 2842 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.00 0.00 0.48 0.00 0.23 0.00 0.27 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.60 0.00 0.00 0.60 0.00 0.34 0.00 0.34 0.00 0.00 0.00
Volume/Cap: 0.00 0.27 0.00 0.00 0.79 0.00 0.68 0.00 0.79 0.00 0.00 0.00
Delay/Veh: 0.0 9.4 0.0 0.0 16.5 0.0 29.7 0.0 34.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.4 0.0 0.0 16.5 0.0 29.7 0.0 34.7 0.0 0.0 0.0
LOS by Move: A A A A B A C A C A A A
HCM2kAvgQ: 0 4 0 0 23 0 12 0 14 0 0 0 0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Excelsior Rd/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.316
Loss Time (sec): 0 Average Delay (sec/veh): 8.6
Optimal Cycle: 0 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0
Volume Module:
Base Vol: 0 289 0 0 34 0 0 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 289 0 0 34 0 0 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 289 0 0 34 0 0 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 289 0 0 34 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 289 0 0 34 0 0 0 0 0 0 0 0 0 0
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 0.00 0.00 1.00 0.00 0.00 1.00 0.00 0.00 1.00 0.00 0.00
Final Sat.: 0 915 0 0 858 0 0 742 0 0 742 0 0
Capacity Analysis Module:
Vol/Sat: xxxx 0.32 xxxx xxxx 0.04 xxxx xxxx 0.00 xxxx xxxx 0.00 xxxx
Crit Moves: **** **** **** ****
Delay/Veh: 0.0 8.7 0.0 0.0 7.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.7 0.0 0.0 7.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: * A * * A * * * *
ApproachDel: 8.7 7.3 xxxxxx xxxxxx
Delay Adj: 1.00 1.00 xxxxxx xxxxxx
ApprAdjDel: 8.7 7.3 xxxxxx xxxxxx
LOS by Appr: A A * *
AllWayAvgQ: 0.5 0.5 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #30 Zinfandel Rd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.946
Loss Time (sec): 0 Average Delay (sec/veh): 691.2
Optimal Cycle: 0 Level Of Service: F

Table with 5 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Stop Sign), Rights (Include), Min. Green, Lanes.

Volume Module table with 12 columns for volume and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns for saturation flow and 4 rows for Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns for capacity and 12 rows for Vol/Sat, Crit Moves, Delay/Veh, etc.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #31 Zinfandel Rd/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.673
Loss Time (sec): 0 Average Delay (sec/veh): 252.8
Optimal Cycle: 0 Level Of Service: F

Table with 5 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Stop Sign), Rights (Include), Min. Green, Lanes.

Volume Module table with 12 columns for volume and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns for saturation flow and 4 rows for Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns for capacity and 12 rows for Vol/Sat, Crit Moves, Delay/Veh, etc.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #40 Mather Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.348
Loss Time (sec): 0 Average Delay (sec/veh): 346.2
Optimal Cycle: 0 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 132 | 348 | 539 | 0 | 70 | 200 | 50 | 0 | 152 | 230 | 680 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 132 | 348 | 539 | 0 | 70 | 200 | 50 | 0 | 152 | 230 | 680 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 132 | 348 | 539 | 0 | 70 | 200 | 50 | 0 | 152 | 230 | 680 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 132 | 348 | 539 | 0 | 70 | 200 | 50 | 0 | 152 | 230 | 680 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 132 | 348 | 539 | 0 | 70 | 200 | 50 | 0 | 152 | 230 | 680 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.27 | 0.73 | 1.00 | 0.00 | 1.00 | 0.80 | 0.20 | 0.00 | 0.14 | 0.22 | 0.64 |
| Final Sat.: | 0 | 124 | 327 | 395 | 0 | 455 | 311 | 78 | 0 | 65 | 98 | 290 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|-------|------|------|------|------|------|-------|------|-------|
| Vol/Sat: | xxxx | 1.06 | 1.06 | 1.37 | xxxx | 0.15 | 0.64 | 0.64 | xxxx | 2.35 | 2.35 | 2.35 |
| Crit Moves: | **** | | | **** | | | **** | | **** | | | |
| Delay/Veh: | 0.0 | 88.8 | 88.8 | 205.0 | 0.0 | 12.1 | 27.6 | 27.6 | 0.0 | 631.1 | 631 | 631.1 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 88.8 | 88.8 | 205.0 | 0.0 | 12.1 | 27.6 | 27.6 | 0.0 | 631.1 | 631 | 631.1 |
| LOS by Move: | * | F | F | F | * | B | D | D | * | F | F | F |
| ApproachDel: | 88.8 | | | 182.9 | | | 27.6 | | | 631.1 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 88.8 | | | 182.9 | | | 27.6 | | | 631.1 | | |
| LOS by Appr: | F | | | F | | | D | | | F | | |
| AllWayAvgQ: | 9.8 | 9.8 | 9.8 | 21.2 | 0.2 | 0.2 | 1.7 | 1.7 | 1.7 | 77.9 | 77.9 | 77.9 |

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Scenario: Scenario Report
Baseline PM Plus Project

Command: Baseline PM Plus Project
Volume: Baseline PM Plus Project
Geometry: Baseline Plus Project
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Baseline PM Plus Project

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 1 Bradshaw Rd/Old Placerville Rd | E xxxxx | 0.967 | E xxxxx | 0.967 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | D xxxxx | 0.875 | D xxxxx | 0.875 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | E xxxxx | 0.956 | E xxxxx | 0.956 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | B xxxxx | 0.621 | B xxxxx | 0.621 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | F xxxxx | 1.092 | F xxxxx | 1.092 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | C xxxxx | 0.730 | C xxxxx | 0.730 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | D xxxxx | 0.842 | D xxxxx | 0.842 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | C xxxxx | 0.747 | C xxxxx | 0.747 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | F OVRFL | 2.406 | F OVRFL | 2.406 | + 0.000 D/V |
| # 10 Sunrise Blvd/White Rock Rd | A xxxxx | 0.565 | A xxxxx | 0.565 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | A xxxxx | 0.574 | A xxxxx | 0.574 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | C xxxxx | 0.765 | C xxxxx | 0.765 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | E xxxxx | 0.941 | E xxxxx | 0.941 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | F 86.1 | 0.958 | F 86.1 | 0.958 | + 0.000 D/V |
| # 15 Grant Line Rd/Douglas Rd | D 30.0 | 0.592 | D 30.0 | 0.592 | + 0.000 D/V |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | F xxxxx | 1.093 | F xxxxx | 1.093 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B 19.2 | 0.570 | B 19.2 | 0.570 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C 24.1 | 0.765 | C 24.1 | 0.765 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | B 17.5 | 0.593 | B 17.5 | 0.593 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | B 19.9 | 0.753 | B 19.9 | 0.753 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | B 17.3 | 0.599 | B 17.3 | 0.599 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | D 37.5 | 0.989 | D 37.5 | 0.989 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | B 11.1 | 0.752 | B 11.1 | 0.752 | + 0.000 D/V |

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

| Intersection | Base | | Future | | Change in |
|-----------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 24 Sunrise Blvd/US-50 EB Ramps | B 18.6 | 0.601 | B 18.6 | 0.601 | + 0.000 D/V |
| # 29 Excelsior Rd/Kiefer Blvd | B 10.1 | 0.472 | B 10.1 | 0.472 | + 0.000 V/C |
| # 30 Zinfandel Rd/Douglas Rd | F OVRFL | 4.441 | F OVRFL | 4.441 | + 0.000 V/C |
| # 31 Zinfandel Rd/Chrysanthy Blvd | F 425.1 | 2.430 | F 425.1 | 2.430 | + 0.000 V/C |
| # 40 Mather Blvd/Douglas Rd | F 433.4 | 2.358 | F 433.4 | 2.358 | + 0.000 V/C |

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

| | | | |
|------------------|-----|--------------------------|--------|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 0.967 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 180 | Level Of Service: | E |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 3 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 1 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 40 | 1105 | 471 | 330 | 1620 | 57 | 55 | 33 | 20 | 387 | 152 | 759 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 40 | 1105 | 471 | 330 | 1620 | 57 | 55 | 33 | 20 | 387 | 152 | 759 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHP Volume: | 40 | 1105 | 471 | 330 | 1620 | 57 | 55 | 33 | 20 | 387 | 152 | 759 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 40 | 1105 | 471 | 330 | 1620 | 57 | 55 | 33 | 20 | 387 | 152 | 759 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 40 | 1105 | 471 | 330 | 1620 | 57 | 55 | 33 | 20 | 387 | 152 | 759 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 3.00 | 1.00 | 2.00 | 2.90 | 0.10 | 1.00 | 0.62 | 0.38 | 2.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 4500 | 1500 | 3000 | 4347 | 153 | 1500 | 934 | 566 | 3000 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.25 | 0.31 | 0.11 | 0.37 | 0.37 | 0.04 | 0.04 | 0.04 | 0.13 | 0.10 | 0.51 |
| Crit Volume: | | | 471 | 165 | | | 55 | | | | | 759 |
| Crit Moves: | | | **** | **** | | | **** | | | | | **** |

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.875
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:
Base Vol: 75 691 71 0 1552 205 190 81 165 296 121 13
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 75 691 71 0 1552 205 190 81 165 296 121 13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 75 691 71 0 1552 205 190 81 165 296 121 13
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 75 691 71 0 1552 205 190 81 165 296 121 13
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 75 691 71 0 1552 205 190 81 165 296 121 13

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.81 0.19 1.00 2.00 1.00 1.00 1.00 1.00 1.00 1.81 0.19
Final Sat.: 1500 2720 280 1500 3000 1500 1500 1500 1500 1500 2709 291

Capacity Analysis Module:
Vol/Sat: 0.05 0.25 0.25 0.00 0.52 0.14 0.13 0.05 0.11 0.20 0.04 0.04
Crit Volume: 75 776 165 296
Crit Moves: ****

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.956
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 2 | 1 | 1 | 0 | 1 | 0 | 1 |

Volume Module:
Base Vol: 45 661 20 230 1702 295 255 467 14 38 283 102
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 45 661 20 230 1702 295 255 467 14 38 283 102
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 45 661 20 230 1702 295 255 467 14 38 283 102
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 45 661 20 230 1702 295 255 467 14 38 283 102
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 45 661 20 230 1702 295 255 467 14 38 283 102

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.94 0.06 1.00 2.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1500 2912 88 1500 3000 1500 1500 1500 1500 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.03 0.23 0.23 0.15 0.57 0.20 0.17 0.31 0.01 0.03 0.19 0.07
Crit Volume: 45 851 255 283
Crit Moves: ****

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Routier Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.621
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 |

Volume Module:
Base Vol: 0 0 0 259 0 168 161 877 0 0 1267 538
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 259 0 168 161 877 0 0 1267 538
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 259 0 168 161 877 0 0 1267 538
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 259 0 168 161 877 0 0 1267 538
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 259 0 168 161 877 0 0 1267 538

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3100 0 1550 1550 3100 0 0 3100 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.08 0.00 0.11 0.10 0.28 0.00 0.00 0.41 0.35
Crit Volume: 0 168 161 634
Crit Moves: **** **

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Mather Field Rd/Rockingham Dr

Cycle (sec): 100 Critical Vol./Cap. (X): 1.092
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 1 | 0 | 3 | 0 | 1 | 1 | 1 | 0 | 0 |

Volume Module:
Base Vol: 368 1989 26 136 997 553 1248 60 270 18 159 125
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 368 1989 26 136 997 553 1248 60 270 18 159 125
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 368 1989 26 136 997 0 1248 60 270 18 159 125
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 368 1989 26 136 997 0 1248 60 270 18 159 125
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 368 1989 26 136 997 0 1248 60 270 18 159 125

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.96 0.04 1.00 3.00 1.00 1.91 0.09 1.00 0.10 0.90 1.00
Final Sat.: 1500 4442 58 1500 4500 1500 2862 138 1500 153 1347 1500

Capacity Analysis Module:
Vol/Sat: 0.25 0.45 0.45 0.09 0.22 0.00 0.44 0.44 0.18 0.12 0.12 0.08
Crit Volume: 672 136 654 177
Crit Moves: **** **

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.730
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 84 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 3 | 115 | 74 | 12 | 631 | 69 | 80 | 573 | 52 | 79 | 334 | 13 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 3 | 115 | 74 | 12 | 631 | 69 | 80 | 573 | 52 | 79 | 334 | 13 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 3 | 115 | 74 | 12 | 631 | 69 | 80 | 573 | 52 | 79 | 334 | 13 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 3 | 115 | 74 | 12 | 631 | 69 | 80 | 573 | 52 | 79 | 334 | 13 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 3 | 115 | 74 | 12 | 631 | 69 | 80 | 573 | 52 | 79 | 334 | 13 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.61 | 0.39 | 1.00 | 0.90 | 0.10 | 1.00 | 1.83 | 0.17 | 1.00 | 1.93 | 0.07 |
| Final Sat.: | 1500 | 913 | 587 | 1500 | 1352 | 148 | 1500 | 2750 | 250 | 1500 | 2888 | 112 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.13 | 0.13 | 0.01 | 0.47 | 0.47 | 0.05 | 0.21 | 0.21 | 0.05 | 0.12 | 0.12 |
| Crit Volume: | 3 | | | 700 | | | 313 | | | 79 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Zinfandel Dr/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.842
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 144 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 2 | 0 | 3 | 2 | 0 | 2 | 2 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 38 | 2482 | 57 | 121 | 1537 | 311 | 472 | 161 | 14 | 128 | 229 | 130 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 38 | 2482 | 57 | 121 | 1537 | 311 | 472 | 161 | 14 | 128 | 229 | 130 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 38 | 2482 | 57 | 121 | 1537 | 311 | 472 | 161 | 14 | 128 | 229 | 130 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 38 | 2482 | 57 | 121 | 1537 | 311 | 472 | 161 | 14 | 128 | 229 | 130 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 38 | 2482 | 57 | 121 | 1537 | 311 | 472 | 161 | 14 | 128 | 229 | 130 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.93 | 0.07 | 2.00 | 3.00 | 1.00 | 2.00 | 2.76 | 0.24 | 2.00 | 1.91 | 1.09 |
| Final Sat.: | 3000 | 4399 | 101 | 3000 | 4500 | 1500 | 3000 | 4140 | 360 | 3000 | 2870 | 1630 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.01 | 0.56 | 0.56 | 0.04 | 0.34 | 0.21 | 0.16 | 0.04 | 0.04 | 0.04 | 0.08 | 0.08 |
| Crit Volume: | 846 | | | 61 | | | 236 | | | 120 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)
Intersection #8 Zinfandel Dr/International Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.747
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 2 1 0 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 279 1341 76 239 1207 165 218 346 467 112 523 382
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 279 1341 76 239 1207 165 218 346 467 112 523 382
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 279 1341 76 239 1207 165 218 346 467 112 523 382
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 279 1341 76 239 1207 165 218 346 467 112 523 382
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 279 1341 76 239 1207 165 218 346 467 112 523 382
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 2.64 0.36 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 4500 1500 3000 3959 541 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.09 0.30 0.05 0.08 0.30 0.30 0.07 0.12 0.31 0.04 0.17 0.25
Crit Volume: 140 457 467 56
Crit Moves: **** **** **** ****

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0
Volume Module:
Base Vol: 1 349 5 121 343 169 164 538 5 19 283 75
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 349 5 121 343 169 164 538 5 19 283 75
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 349 5 121 343 169 164 538 5 19 283 75
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 1 349 5 121 343 169 164 538 5 19 283 75
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 1483 1265 541 1404 1230 321 358 xxxx xxxxx 543 xxxx xxxxx
Potent Cap.: 104 171 545 118 179 725 1212 xxxx xxxxx 1036 xxxx xxxxx
Move Cap.: 0 145 545 0 152 725 1212 xxxx xxxxx 1036 xxxx xxxxx
Volume/Cap: xxxx 2.41 0.01 xxxx 2.25 0.23 0.14 xxxx xxxx 0.02 xxxx xxxx
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.5 xxxx xxxxx 0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.4 xxxx xxxxx 8.5 xxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 0 xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx
ApproachLOS: F F * *
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.565
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | | | | |
| Rights: | Include | | | Ovl | | | Ovl | | | Ovl | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 31 | 1008 | 359 | 234 | 1005 | 13 | 181 | 237 | 59 | 506 | 235 | 202 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 31 | 1008 | 359 | 234 | 1005 | 13 | 181 | 237 | 59 | 506 | 235 | 202 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 31 | 1008 | 359 | 234 | 1005 | 13 | 181 | 237 | 59 | 506 | 235 | 202 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 31 | 1008 | 359 | 234 | 1005 | 13 | 181 | 237 | 59 | 506 | 235 | 202 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 31 | 1008 | 359 | 234 | 1005 | 13 | 181 | 237 | 59 | 506 | 235 | 202 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 3000 | 1500 | 3000 | 4500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.01 | 0.22 | 0.24 | 0.08 | 0.22 | 0.01 | 0.06 | 0.08 | 0.04 | 0.17 | 0.05 | 0.13 |
| Crit Volume: | 359 | 117 | 119 | 253 | 109 | 333 | 17 | 17 | 17 | 17 | 17 | 17 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.574
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | | | | |
| Rights: | Ovl | | | Include | | | Ovl | | | Ovl | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 219 | 543 | 59 | 198 | 1205 | 253 | 169 | 346 | 320 | 34 | 61 | 27 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 219 | 543 | 59 | 198 | 1205 | 253 | 169 | 346 | 320 | 34 | 61 | 27 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 219 | 543 | 59 | 198 | 1205 | 253 | 169 | 346 | 320 | 34 | 61 | 27 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 219 | 543 | 59 | 198 | 1205 | 253 | 169 | 346 | 320 | 34 | 61 | 27 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 219 | 543 | 59 | 198 | 1205 | 253 | 169 | 346 | 320 | 34 | 61 | 27 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 1.04 | 0.96 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 1559 | 1441 | 3000 | 3000 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.07 | 0.12 | 0.04 | 0.07 | 0.27 | 0.17 | 0.06 | 0.22 | 0.22 | 0.01 | 0.02 | 0.02 |
| Crit Volume: | 109 | 402 | 333 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Sunrise Blvd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.765
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 97 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 126 | 480 | 22 | 71 | 997 | 111 | 264 | 8 | 162 | 9 | 12 | 33 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 126 | 480 | 22 | 71 | 997 | 111 | 264 | 8 | 162 | 9 | 12 | 33 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 126 | 480 | 22 | 71 | 997 | 111 | 264 | 8 | 162 | 9 | 12 | 33 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 126 | 480 | 22 | 71 | 997 | 111 | 264 | 8 | 162 | 9 | 12 | 33 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 126 | 480 | 22 | 71 | 997 | 111 | 264 | 8 | 162 | 9 | 12 | 33 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.80 | 0.20 | 0.61 | 0.02 | 0.37 | 0.43 | 0.57 | 1.00 |
| Final Sat.: | 1500 | 3000 | 1500 | 3000 | 2699 | 301 | 912 | 28 | 560 | 643 | 857 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.08 | 0.16 | 0.01 | 0.02 | 0.37 | 0.37 | 0.29 | 0.29 | 0.29 | 0.01 | 0.01 | 0.02 |
| Crit Volume: | 126 | | | 554 | | | 434 | | | 33 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.941
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 13 | 312 | 27 | 207 | 915 | 82 | 81 | 456 | 21 | 28 | 237 | 179 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 13 | 312 | 27 | 207 | 915 | 82 | 81 | 456 | 21 | 28 | 237 | 179 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 13 | 312 | 27 | 207 | 915 | 82 | 81 | 456 | 21 | 28 | 237 | 179 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 13 | 312 | 27 | 207 | 915 | 82 | 81 | 456 | 21 | 28 | 237 | 179 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 13 | 312 | 27 | 207 | 915 | 82 | 81 | 456 | 21 | 28 | 237 | 179 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.92 | 0.08 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1500 | 1381 | 119 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.01 | 0.23 | 0.23 | 0.14 | 0.61 | 0.05 | 0.05 | 0.30 | 0.01 | 0.02 | 0.16 | 0.12 |
| Crit Volume: | 13 | | | 915 | | | 456 | | | 28 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 Grant Line Rd/White Rock Rd

Average Delay (sec/veh): 22.9 Worst Case Level Of Service: F [86.1]

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Lanes.

Volume Module table with 4 columns (Approaches) and 4 rows (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume).

Critical Gap Module table with 4 columns (Approaches) and 2 rows (Critical Gap, FollowUpTim).

Capacity Module table with 4 columns (Approaches) and 4 rows (Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.).

Level Of Service Module table with 4 columns (Approaches) and 10 rows (2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS).

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #15 Grant Line Rd/Douglas Rd

Average Delay (sec/veh): 6.9 Worst Case Level Of Service: D [30.0]

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Lanes.

Volume Module table with 4 columns (Approaches) and 4 rows (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume).

Critical Gap Module table with 4 columns (Approaches) and 2 rows (Critical Gap, FollowUpTim).

Capacity Module table with 4 columns (Approaches) and 4 rows (Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.).

Level Of Service Module table with 4 columns (Approaches) and 10 rows (2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS).

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 Grant Line Rd/Jackson Rd(SR-16)
Cycle (sec): 100 Critical Vol./Cap. (X): 1.093
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0
Volume Module:
Base Vol: 1 176 40 87 309 68 41 915 4 39 444 9
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 176 40 87 309 68 41 915 4 39 444 9
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 176 40 87 309 68 41 915 4 39 444 9
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1 176 40 87 309 68 41 915 4 39 444 9
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 1 176 40 87 309 68 41 915 4 39 444 9
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.01 0.81 0.18 0.19 0.66 0.15 1.00 0.99 0.01 1.00 0.98 0.02
Final Sat.: 7 1217 276 281 999 220 1500 1493 7 1500 1470 30
Capacity Analysis Module:
Vol/Sat: 0.14 0.14 0.14 0.31 0.31 0.31 0.03 0.61 0.61 0.03 0.30 0.30
Crit Volume: 217 464 919 39
Crit Moves: **** **** **** ****

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 Bradshaw Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.570
Loss Time (sec): 6 Average Delay (sec/veh): 19.2
Optimal Cycle: 31 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 2 1 0 0 0 0 0 2
Volume Module:
Base Vol: 0 836 1272 0 1226 1251 0 0 0 1047 0 667
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 836 1272 0 1226 1251 0 0 0 1047 0 667
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 836 0 0 1226 0 0 0 0 1047 0 667
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 836 0 0 1226 0 0 0 0 1047 0 667
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 836 0 0 1226 0 0 0 0 1047 0 667
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 1.00 1.00 1.00 0.92 1.00 0.75
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 2.00
Final Sat.: 0 5187 0 0 5187 0 0 0 0 3502 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.00 0.00 0.24 0.00 0.00 0.00 0.00 0.30 0.00 0.23
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.42 0.00 0.00 0.42 0.00 0.00 0.00 0.00 0.52 0.00 0.52
Volume/Cap: 0.00 0.39 0.00 0.00 0.57 0.00 0.00 0.00 0.00 0.57 0.00 0.45
Delay/Veh: 0.0 20.5 0.0 0.0 22.8 0.0 0.0 0.0 0.0 16.5 0.0 15.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 20.5 0.0 0.0 22.8 0.0 0.0 0.0 0.0 16.5 0.0 15.0
LOS by Move: A C A A C A A A A B A B
HCM2kAvgQ: 0 7 0 0 11 0 0 0 0 11 0 7

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.765
Loss Time (sec): 6 Average Delay (sec/veh): 24.1
Optimal Cycle: 51 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 2 1 0 2 0 0 0 2 0 0 0 0 0 0
Volume Module:
Base Vol: 0 1565 750 0 1594 663 562 0 1170 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1565 750 0 1594 663 562 0 1170 0 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1565 0 0 1594 0 562 0 1170 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1565 0 0 1594 0 562 0 1170 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1565 0 0 1594 0 562 0 1170 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 0.92 1.00 0.75 1.00 1.00 1.00
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 2.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 5187 0 0 5187 0 3502 0 2842 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.30 0.00 0.00 0.31 0.00 0.16 0.00 0.41 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.40 0.00 0.00 0.40 0.00 0.54 0.00 0.54 0.00 0.00 0.00
Volume/Cap: 0.00 0.75 0.00 0.00 0.76 0.00 0.30 0.00 0.76 0.00 0.00 0.00
Delay/Veh: 0.0 27.2 0.0 0.0 27.6 0.0 12.8 0.0 20.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 27.2 0.0 0.0 27.6 0.0 12.8 0.0 20.5 0.0 0.0 0.0
LOS by Move: A C A A C A B A C A A A
HCM2kAvgQ: 0 16 0 0 17 0 5 0 17 0 0 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.593
Loss Time (sec): 6 Average Delay (sec/veh): 17.5
Optimal Cycle: 33 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 1 0 1 0 0 0
Volume Module:
Base Vol: 0 1109 1329 0 577 274 0 0 0 0 394 0 238
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1109 1329 0 577 274 0 0 0 0 394 0 238
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1109 0 0 577 0 0 0 0 0 394 0 238
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1109 0 0 577 0 0 0 0 0 394 0 238
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1109 0 0 577 0 0 0 0 0 394 0 238
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.95 1.00 0.95 0.95 1.00 1.00 1.00 0.91 1.00 0.91
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 1.45 0.00 0.55
Final Sat.: 0 3610 0 0 3610 0 0 0 0 0 2525 0 951
Capacity Analysis Module:
Vol/Sat: 0.00 0.31 0.00 0.00 0.16 0.00 0.00 0.00 0.00 0.16 0.00 0.25
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.52 0.00 0.00 0.52 0.00 0.00 0.00 0.00 0.42 0.00 0.42
Volume/Cap: 0.00 0.59 0.00 0.00 0.31 0.00 0.00 0.00 0.00 0.37 0.00 0.59
Delay/Veh: 0.0 17.3 0.0 0.0 13.9 0.0 0.0 0.0 0.0 19.9 0.0 23.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 17.3 0.0 0.0 13.9 0.0 0.0 0.0 0.0 19.9 0.0 23.2
LOS by Move: A B A A B A A A A A B A C
HCM2kAvgQ: 0 13 0 0 5 0 0 0 0 6 0 11

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.753
Loss Time (sec): 6 Average Delay (sec/veh): 19.9
Optimal Cycle: 49 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 1 1 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 2123 1227 0 812 146 307 0 866 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 2123 1227 0 812 146 307 0 866 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 2123 0 0 812 0 307 0 866 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2123 0 0 812 0 307 0 866 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 2123 0 0 812 0 307 0 866 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.95 0.95 0.88 1.00 0.88 1.00 1.00 1.00
Lanes: 0.00 3.00 0.00 0.00 2.00 0.00 1.26 0.00 1.74 0.00 0.00 0.00
Final Sat.: 0 5187 0 0 3610 0 2103 0 2898 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.41 0.00 0.00 0.22 0.00 0.15 0.00 0.30 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.54 0.00 0.00 0.54 0.00 0.40 0.00 0.40 0.00 0.00 0.00
Volume/Cap: 0.00 0.75 0.00 0.00 0.41 0.00 0.37 0.00 0.75 0.00 0.00 0.00
Delay/Veh: 0.0 18.8 0.0 0.0 13.6 0.0 21.4 0.0 28.1 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 18.8 0.0 0.0 13.6 0.0 21.4 0.0 28.1 0.0 0.0 0.0
LOS by Move: A B A A B A C A C A A A
HCM2kAvgQ: 0 20 0 0 8 0 5 0 15 0 0 0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.599
Loss Time (sec): 6 Average Delay (sec/veh): 17.3
Optimal Cycle: 33 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 1 1 0 0 0 0 1
Volume Module:
Base Vol: 0 1758 1779 0 734 624 0 0 0 784 0 284
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1758 1779 0 734 624 0 0 0 784 0 284
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1758 0 0 734 0 0 0 0 784 0 284
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1758 0 0 734 0 0 0 0 784 0 284
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1758 0 0 734 0 0 0 0 784 0 284
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.95 0.95 1.00 1.00 1.00 0.92 1.00 0.85
Lanes: 0.00 3.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 5187 0 0 3610 0 0 0 0 3502 0 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.34 0.00 0.00 0.20 0.00 0.00 0.00 0.00 0.22 0.00 0.18
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.57 0.00 0.00 0.57 0.00 0.00 0.00 0.00 0.37 0.00 0.37
Volume/Cap: 0.00 0.60 0.00 0.00 0.36 0.00 0.00 0.00 0.00 0.60 0.00 0.47
Delay/Veh: 0.0 14.6 0.0 0.0 11.9 0.0 0.0 0.0 0.0 26.0 0.0 24.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 14.6 0.0 0.0 11.9 0.0 0.0 0.0 0.0 26.0 0.0 24.4
LOS by Move: A B A A B A A A A C A C
HCM2kAvgQ: 0 13 0 0 6 0 0 0 0 10 0 7
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Zinfandel Dr/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.989
Loss Time (sec): 9 Average Delay (sec/veh): 37.5
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control Rights, Y+R, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sunrise Blvd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.752
Loss Time (sec): 6 Average Delay (sec/veh): 11.1
Optimal Cycle: 49 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control Rights, Y+R, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.601
Loss Time (sec): 6 Average Delay (sec/veh): 18.6
Optimal Cycle: 33 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table showing Base Vol., Growth Adj., Initial Bse., User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., and Final Volume for each approach and movement.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach and movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap., Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for each approach and movement.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Excelsior Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.472
Loss Time (sec): 0 Average Delay (sec/veh): 10.1
Optimal Cycle: 0 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Lanes, and Volume Module.

Volume Module table showing Base Vol., Growth Adj., Initial Bse., User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., and Final Volume for each approach and movement.

Saturation Flow Module table showing Adjustment, Lanes, and Final Sat. for each approach and movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Delay/Veh, AdjDel/Veh, LOS by Appr, and AllWayAvgQ for each approach and movement.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #30 Zinfandel Rd/Douglas Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 4.441
Loss Time (sec): 0 Average Delay (sec/veh): 1084.7
Optimal Cycle: 0 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
Volume Module:
Base Vol: 326 706 237 266 852 673 487 331 278 217 187 171
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 326 706 237 266 852 673 487 331 278 217 187 171
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 326 706 237 266 852 673 487 331 278 217 187 171
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 326 706 237 266 852 673 487 331 278 217 187 171
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 326 706 237 266 852 673 487 331 278 217 187 171
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.26 0.55 0.19 0.15 0.47 0.38 0.45 0.30 0.25 0.38 0.32 0.30
Final Sat.: 102 221 74 60 192 152 177 120 101 151 130 119
Capacity Analysis Module:
Vol/Sat: 3.19 3.19 3.19 4.44 4.44 4.44 2.76 2.76 2.76 1.44 1.44 1.44
Crit Moves: **** **** ****
Delay/Veh: 1013 1013 1013 1572 1572 1572 817.2 817 817.2 236.4 236 236.4
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 1013 1013 1013 1572 1572 1572 817.2 817 817.2 236.4 236 236.4
LOS by Move: F F F F F F F F F F F F
ApproachDel: 1012.6 1572.0 817.2 236.4
Delay Adj: 1.00 1.00
ApprAdjDel: 1012.6 1572.0 817.2 236.4
LOS by Appr: F F F F
AllWayAvgQ: 110 110 110.4 175 175 174.7 88.9 88.9 88.9 24.9 24.9 24.9
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #31 Zinfandel Rd/Chrysanthy Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 2.430
Loss Time (sec): 0 Average Delay (sec/veh): 425.1
Optimal Cycle: 0 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 0 1 0 0 0 1 0 0 0 0 0 0 1! 0 0
Volume Module:
Base Vol: 0 566 209 556 705 0 0 0 0 282 0 548
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 566 209 556 705 0 0 0 0 282 0 548
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 566 209 556 705 0 0 0 0 282 0 548
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 566 209 556 705 0 0 0 0 282 0 548
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 566 209 556 705 0 0 0 0 282 0 548
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.73 0.27 0.44 0.56 0.00 0.00 0.00 0.00 0.34 0.00 0.66
Final Sat.: 0 393 145 229 290 0 0 0 0 190 0 369
Capacity Analysis Module:
Vol/Sat: xxxx 1.44 1.44 2.43 2.43 xxxx xxxx xxxx xxxx 1.48 xxxx 1.48
Crit Moves: **** ****
Delay/Veh: 0.0 227 227.4 665.0 665 0.0 0.0 0.0 0.0 245.1 0.0 245.1
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 227 227.4 665.0 665 0.0 0.0 0.0 0.0 245.1 0.0 245.1
LOS by Move: * F F F F * * * *
ApproachDel: 227.4 665.0 xxxxxx 245.1
Delay Adj: 1.00 1.00 xxxxxx 1.00
ApprAdjDel: 227.4 665.0 xxxxxx 245.1
LOS by Appr: F F F *
AllWayAvgQ: 32.6 32.6 32.6 94.4 94.4 94.4 0.0 0.0 0.0 36.6 36.6 36.6
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Baseline Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #40 Mather Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.358
Loss Time (sec): 0 Average Delay (sec/veh): 433.4
Optimal Cycle: 0 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 8 | 218 | 879 | 127 | 65 | 200 | 50 | 0 | 497 | 260 | 443 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 8 | 218 | 879 | 127 | 65 | 200 | 50 | 0 | 497 | 260 | 443 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 8 | 218 | 879 | 127 | 65 | 200 | 50 | 0 | 497 | 260 | 443 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 8 | 218 | 879 | 127 | 65 | 200 | 50 | 0 | 497 | 260 | 443 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 8 | 218 | 879 | 127 | 65 | 200 | 50 | 0 | 497 | 260 | 443 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.04 | 0.96 | 1.00 | 0.66 | 0.34 | 0.80 | 0.20 | 0.00 | 0.41 | 0.22 | 0.37 |
| Final Sat.: | 0 | 16 | 443 | 440 | 320 | 164 | 349 | 87 | 0 | 211 | 110 | 188 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|-------|------|------|------|------|------|-------|------|-------|
| Vol/Sat: | xxxx | 0.49 | 0.49 | 2.00 | 0.40 | 0.40 | 0.57 | 0.57 | xxxx | 2.36 | 2.36 | 2.36 |
| Crit Moves: | | **** | **** | | | | | **** | | | | **** |
| Delay/Veh: | 0.0 | 17.5 | 17.5 | 476.1 | 15.0 | 15.0 | 21.0 | 21.0 | 0.0 | 633.3 | 633 | 633.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 17.5 | 17.5 | 476.1 | 15.0 | 15.0 | 21.0 | 21.0 | 0.0 | 633.3 | 633 | 633.3 |
| LOS by Move: | * | C | C | F | B | B | C | C | * | F | F | F |
| ApproachDel: | 17.5 | | | 393.4 | | | 21.0 | | | 633.3 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 17.5 | | | 393.4 | | | 21.0 | | | 633.3 | | |
| LOS by Appr: | C | | | F | | | C | | | F | | |
| AllWayAvgQ: | 0.9 | 0.9 | 0.9 | 56.8 | 0.6 | 0.6 | 1.2 | 1.2 | 1.2 | 88.1 | 88.1 | 88.1 |

Note: Queue reported is the number of cars per lane.

04 Future No Project

Mather Specific Plan
Future Plus Project
AM Peak Hour

Scenario: Future AM Plus Project

Scenario Report
Future AM Plus Project

Command: Future AM Plus Project
Volume: Future AM Plus Project
Geometry: Future Plus Project
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Future AM Plus Project

Mather Specific Plan
Future Plus Project
AM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|-------------|-------------|-------------|-------------|--------------|
| | Del/ LOS | V/ Veh | Del/ LOS | V/ Veh | |
| # 1 Bradshaw Rd/Old Placerville Rd | F | xxxxx 2.020 | F | xxxxx 2.020 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | F | xxxxx 2.070 | F | xxxxx 2.070 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | E | xxxxx 0.992 | E | xxxxx 0.992 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | F | xxxxx 1.395 | F | xxxxx 1.395 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | C | xxxxx 0.790 | C | xxxxx 0.790 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | D | xxxxx 0.825 | D | xxxxx 0.825 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | D | xxxxx 0.811 | D | xxxxx 0.811 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | F | xxxxx 1.034 | F | xxxxx 1.034 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | A | xxxxx 0.559 | A | xxxxx 0.559 | + 0.000 V/C |
| # 10 Sunrise Blvd/White Rock Rd | C | xxxxx 0.765 | C | xxxxx 0.765 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | F | xxxxx 1.107 | F | xxxxx 1.107 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | C | xxxxx 0.749 | C | xxxxx 0.749 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | E | xxxxx 0.963 | E | xxxxx 0.963 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | C | xxxxx 0.772 | C | xxxxx 0.772 | + 0.000 V/C |
| # 15 Grant Line Rd/Douglas Rd | D | xxxxx 0.802 | D | xxxxx 0.802 | + 0.000 V/C |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | B | xxxxx 0.685 | B | xxxxx 0.685 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B | 16.6 0.498 | B | 16.6 0.498 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C | 32.3 0.967 | C | 32.3 0.967 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | B | 19.4 0.689 | B | 19.4 0.689 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | D | 43.7 1.043 | D | 43.7 1.043 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | B | 13.6 0.583 | B | 13.6 0.583 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | E | 56.8 1.137 | E | 56.8 1.137 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | B | 17.5 0.866 | B | 17.5 0.866 | + 0.000 D/V |

Mather Specific Plan
Future Plus Project
AM Peak Hour

| Intersection | Base | | Future | | Change in | |
|-------------------------------------|------|-------------|--------|-------------|--------------|-----|
| | LOS | Veh C | LOS | Veh C | | |
| # 24 Sunrise Blvd/US-50 EB Ramps | B | 18.2 0.809 | B | 18.2 0.809 | + 0.000 | D/V |
| # 25 Rancho Cordova Pkwy/US-50 WB R | B | 18.3 0.607 | B | 18.3 0.607 | + 0.000 | D/V |
| # 26 Rancho Cordova Pkwy/US-50 EB R | A | 0.0 0.327 | A | 0.0 0.327 | + 0.000 | D/V |
| # 27 Vineyard Rd/Kiefer Blvd | E | xxxxx 0.961 | E | xxxxx 0.961 | + 0.000 | V/C |
| # 28 Vineyard Rd/Jackson Rd(SR-16) | D | xxxxx 0.802 | D | xxxxx 0.802 | + 0.000 | V/C |
| # 29 Excelsior Rd/Kiefer Blvd | B | xxxxx 0.629 | B | xxxxx 0.629 | + 0.000 | V/C |
| # 30 Excelsior Rd/Kiefer Blvd | F | xxxxx 1.694 | F | xxxxx 1.694 | + 0.000 | V/C |
| # 31 Zinfandel Rd/Chrysanthy Blvd | E | xxxxx 0.985 | E | xxxxx 0.985 | + 0.000 | V/C |
| # 32 Sunrise Blvd/Chrysanthy Blvd | E | xxxxx 0.966 | E | xxxxx 0.966 | + 0.000 | V/C |
| # 33 Rancho Cordova Pkwy/White Rock | E | xxxxx 0.922 | E | xxxxx 0.922 | + 0.000 | V/C |
| # 34 Rancho Cordova Pkwy/Douglas Rd | A | xxxxx 0.535 | A | xxxxx 0.535 | + 0.000 | V/C |
| # 35 Rancho Cordova Pkwy/Chrysanthy | C | xxxxx 0.720 | C | xxxxx 0.720 | + 0.000 | V/C |
| # 36 Rancho Cordova Pkwy/Kiefer Blv | A | xxxxx 0.511 | A | xxxxx 0.511 | + 0.000 | V/C |
| # 37 Grant Line Rd/Chrysanthy Blvd | B | xxxxx 0.650 | B | xxxxx 0.650 | + 0.000 | V/C |
| # 38 Grant Line Rd/Kiefer Blvd | C | xxxxx 0.791 | C | xxxxx 0.791 | + 0.000 | V/C |
| # 39 Rancho Cordova Pkwy/Grant Line | B | xxxxx 0.667 | B | xxxxx 0.667 | + 0.000 | V/C |
| # 40 Mather Blvd/Douglas Rd | F | 607.8 3.262 | F | 607.8 3.262 | + 0.000 | V/C |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

| | | | |
|------------------|-----|--------------------------|--------|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 2.020 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 180 | Level Of Service: | F |

| | | | | |
|-----------|-------------|-------------|------------|------------|
| Approach: | North Bound | South Bound | East Bound | West Bound |
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |

-----|-----|-----|-----|

| | | | | |
|-------------|-------------|-------------|-------------|-------------|
| Control: | Protected | Protected | Split Phase | Split Phase |
| Rights: | Include | Include | Include | Include |
| Min. Green: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Y+R: | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 |
| Lanes: | 1 0 3 0 1 | 2 0 2 1 0 | 1 0 0 1 0 | 2 0 1 0 1 |

-----|-----|-----|-----|

Volume Module:

| | | |
|---------------|-------------------------------|-------------------------------|
| Base Vol: | 48 1735 1307 1114 1119 | 39 59 40 26 791 22 1045 |
| Growth Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| Initial Bse: | 48 1735 1307 1114 1119 39 | 59 40 26 791 22 1045 |
| User Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| PHP Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| PHP Volume: | 48 1735 1307 1114 1119 39 | 59 40 26 791 22 1045 |
| Reduced Vol: | 0 0 0 0 0 0 | 0 0 0 0 0 0 |
| Reduced Vol: | 48 1735 1307 1114 1119 39 | 59 40 26 791 22 1045 |
| PCE Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| MLF Adj: | 1.00 1.00 1.00 1.10 1.00 1.00 | 1.00 1.00 1.00 1.10 1.00 1.00 |
| Final Volume: | 48 1735 1307 1225 1119 39 | 59 40 26 870 22 1045 |

-----|-----|-----|-----|

Saturation Flow Module:

| | | |
|-------------|-------------------------------|-------------------------------|
| Sat/Lane: | 1500 1500 1500 1500 1500 | 1500 1500 1500 1500 1500 |
| Adjustment: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| Lanes: | 1.00 3.00 1.00 2.00 2.90 0.10 | 1.00 0.61 0.39 2.00 1.00 1.00 |
| Final Sat.: | 1500 4500 1500 3000 4348 152 | 1500 909 591 3000 1500 1500 |

-----|-----|-----|-----|

Capacity Analysis Module:

| | | |
|--------------|-------------------------------|-------------------------------|
| Vol/Sat: | 0.03 0.39 0.87 0.41 0.26 0.26 | 0.04 0.04 0.04 0.29 0.01 0.70 |
| Crit Volume: | 1307 613 | 66 1045 |
| Crit Moves: | **** **** | **** **** |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.070
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.76 | 0.24 | 1.00 | 2.33 | 0.67 | 1.00 | 1.90 | 0.10 | 1.00 | 1.46 | 0.54 |
| Final Sat.: | 1500 | 2641 | 359 | 1500 | 3501 | 999 | 1500 | 2844 | 156 | 1500 | 2191 | 809 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.94 | 0.94 | 0.23 | 0.30 | 0.30 | 0.40 | 0.27 | 0.27 | 0.14 | 0.50 | 0.50 |
| Crit Volume: | | 1413 | 345 | | 598 | | | | | | 749 | |
| Crit Moves: | | **** | **** | | **** | | | **** | | | **** | |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.992
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 520 | 1977 | 303 | 173 | 993 | 52 | 256 | 1291 | 405 | 371 | 1780 | 430 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 520 | 1977 | 303 | 173 | 993 | 52 | 256 | 1291 | 405 | 371 | 1780 | 430 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 520 | 1977 | 303 | 173 | 993 | 52 | 256 | 1291 | 405 | 371 | 1780 | 430 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 520 | 1977 | 303 | 173 | 993 | 52 | 256 | 1291 | 405 | 371 | 1780 | 430 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 |
| Final Volume: | 572 | 1977 | 303 | 190 | 993 | 52 | 282 | 1291 | 405 | 408 | 1780 | 430 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.19 | 0.44 | 0.20 | 0.06 | 0.22 | 0.03 | 0.09 | 0.29 | 0.27 | 0.14 | 0.40 | 0.29 |
| Crit Volume: | | 659 | 95 | | 141 | | | 593 | | | 593 | |
| Crit Moves: | | **** | **** | | **** | | | **** | | | **** | |

Mather Specific Plan
Future Plus Project
AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #4 Routier Rd/Old Placerville Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 1.395
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 0 | 0 | 0 | 357 | 0 | 489 | 617 | 2906 | 0 | 0 | 2111 | 270 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 357 | 0 | 489 | 617 | 2906 | 0 | 0 | 2111 | 270 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 0 | 0 | 0 | 357 | 0 | 489 | 617 | 2906 | 0 | 0 | 2111 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 357 | 0 | 489 | 617 | 2906 | 0 | 0 | 2111 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Final Volume: | 0 | 0 | 0 | 393 | 0 | 489 | 617 | 2906 | 0 | 0 | 2111 | 0 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 0 | 0 | 0 | 3100 | 0 | 1550 | 1550 | 3100 | 0 | 0 | 3100 | 1550 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.13 | 0.00 | 0.32 | 0.40 | 0.94 | 0.00 | 0.00 | 0.68 | 0.00 |
| Crit Volume: | 0 | | | 489 | 617 | 1056 | | | | | | |
| Crit Moves: | | | | **** | **** | **** | | | | | | |

Mather Specific Plan
Future Plus Project
AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #5 Mather Field Rd/Rockingham Dr

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.790
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 108 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 1 | 0 | 3 | 0 | 1 | 1 | 0 | 1 | 0 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 47 | 1523 | 14 | 82 | 2225 | 1155 | 415 | 47 | 174 | 23 | 69 | 144 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 47 | 1523 | 14 | 82 | 2225 | 1155 | 415 | 47 | 174 | 23 | 69 | 144 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 47 | 1523 | 14 | 82 | 2225 | 0 | 415 | 47 | 174 | 23 | 69 | 144 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 47 | 1523 | 14 | 82 | 2225 | 0 | 415 | 47 | 174 | 23 | 69 | 144 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 47 | 1523 | 14 | 82 | 2225 | 0 | 457 | 47 | 174 | 23 | 69 | 144 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.97 | 0.03 | 1.00 | 3.00 | 1.00 | 1.81 | 0.19 | 1.00 | 0.25 | 0.75 | 1.00 |
| Final Sat.: | 1500 | 4459 | 41 | 1500 | 4500 | 1500 | 2720 | 280 | 1500 | 375 | 1125 | 1500 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.03 | 0.34 | 0.34 | 0.05 | 0.49 | 0.00 | 0.17 | 0.17 | 0.12 | 0.06 | 0.06 | 0.10 |
| Crit Volume: | 47 | | | 742 | 252 | 144 | | | | | | |
| Crit Moves: | **** | | | **** | **** | **** | | | | | | |

Mather Specific Plan
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AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.825
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 130 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 904 | 938 | 278 | 11 | 254 | 58 | 69 | 537 | 320 | 186 | 1151 | 292 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 904 | 938 | 278 | 11 | 254 | 58 | 69 | 537 | 320 | 186 | 1151 | 292 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 904 | 938 | 278 | 11 | 254 | 58 | 69 | 537 | 320 | 186 | 1151 | 292 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 904 | 938 | 278 | 11 | 254 | 58 | 69 | 537 | 320 | 186 | 1151 | 292 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 |
| Final Volume: | 994 | 938 | 278 | 12 | 254 | 58 | 76 | 537 | 320 | 205 | 1151 | 292 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 4500 | 1500 | 3000 | 3000 | 1500 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.33 | 0.31 | 0.19 | 0.00 | 0.08 | 0.04 | 0.03 | 0.12 | 0.21 | 0.07 | 0.38 | 0.19 |
| Crit Volume: | 497 | | | 127 | | | 38 | | | 576 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
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AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #7 Zinfandel Dr/White Rock Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.811
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 120 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.72 | 0.28 | 2.00 | 1.59 | 1.41 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 4079 | 421 | 3000 | 2385 | 2115 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.01 | 0.45 | 0.04 | 0.09 | 0.53 | 0.54 | 0.13 | 0.04 | 0.04 | 0.05 | 0.14 | 0.14 |
| Crit Volume: | 10 | | | 804 | 197 | | 205 | | | | | |
| Crit Moves: | **** | | | **** | **** | | **** | | | **** | | |

Mather Specific Plan
Future Plus Project
AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #8 Zinfandel Dr/International Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 1.034
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 3 0 1

 Volume Module:
 Base Vol: 1021 1352 122 540 872 435 205 940 438 111 1327 417
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 1021 1352 122 540 872 435 205 940 438 111 1327 417
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 1021 1352 122 540 872 435 205 940 438 111 1327 417
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 1021 1352 122 540 872 435 205 940 438 111 1327 417
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
 Final Volume: 1123 1352 122 594 872 435 226 940 438 122 1327 417

 Saturation Flow Module:
 Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
 Final Sat.: 3000 4500 1500 3000 4500 1500 3000 4500 1500 3000 4500 1500

 Capacity Analysis Module:
 Vol/Sat: 0.37 0.30 0.08 0.20 0.19 0.29 0.08 0.21 0.29 0.04 0.29 0.28
 Crit Volume: 562 435 113 442
 Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.559
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 Level Of Service: A

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Ovl Ovl Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 1 280 7 17 153 81 3 691 0 4 1077 93
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 1 280 7 17 153 81 3 691 0 4 1077 93
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 1 280 7 17 153 81 3 691 0 4 1077 93
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 1 280 7 17 153 81 3 691 0 4 1077 93
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 1 280 7 17 153 81 3 691 0 4 1077 93

 Saturation Flow Module:
 Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00
 Final Sat.: 1500 1500 1500 1500 1500 1500 3000 1500 1500 3000 1500 1500

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.19 0.00 0.01 0.10 0.05 0.00 0.23 0.00 0.00 0.36 0.06
 Crit Volume: 280 17 3 539
 Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd
Cycle (sec): 180 Critical Vol./Cap. (X): 0.765
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 97 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 3 0 1
Volume Module:
Base Vol: 375 1689 298 74 1319 521 198 119 57 481 933 201
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 375 1689 298 74 1319 521 198 119 57 481 933 201
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 375 1689 298 74 1319 521 198 119 57 481 933 201
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 375 1689 298 74 1319 521 198 119 57 481 933 201
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 413 1689 298 81 1319 521 218 119 57 529 933 201
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
Final Sat.: 3000 4500 1500 3000 4500 1500 3000 4500 1500 3000 4500 1500
Capacity Analysis Module:
Vol/Sat: 0.14 0.38 0.20 0.03 0.29 0.35 0.07 0.03 0.04 0.18 0.21 0.13
Crit Volume: 206 521 109 311
Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 1.107
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 3 0 1
Volume Module:
Base Vol: 719 1825 217 239 960 517 279 534 335 161 1241 594
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 719 1825 217 239 960 517 279 534 335 161 1241 594
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 719 1825 217 239 960 517 279 534 335 161 1241 594
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 719 1825 217 239 960 517 279 534 335 161 1241 594
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 791 1825 217 263 960 517 307 534 335 177 1241 594
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 3.00 1.00
Final Sat.: 3000 4500 1500 3000 4500 1500 3000 3000 1500 3000 4500 1500
Capacity Analysis Module:
Vol/Sat: 0.26 0.41 0.14 0.09 0.21 0.34 0.10 0.18 0.22 0.06 0.28 0.40
Crit Volume: 395 517 153 594
Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Sunrise Blvd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.749
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 91 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes values for Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows including Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.963
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes values for Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows including Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future Plus Project
AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #14 Grant Line Rd/White Rock Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.772
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 100 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Ovl | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 17 | 1825 | 0 | 0 | 1405 | 1179 | 467 | 0 | 11 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 17 | 1825 | 0 | 0 | 1405 | 1179 | 467 | 0 | 11 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 17 | 1825 | 0 | 0 | 1405 | 1179 | 467 | 0 | 11 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 17 | 1825 | 0 | 0 | 1405 | 1179 | 467 | 0 | 11 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 17 | 1825 | 0 | 0 | 1405 | 1179 | 514 | 0 | 11 | 0 | 0 | 0 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1550 | 3100 | 0 | 0 | 3100 | 1550 | 3100 | 0 | 1550 | 0 | 0 | 0 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.01 | 0.59 | 0.00 | 0.00 | 0.45 | 0.76 | 0.17 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| Crit Volume: | 17 | | | 1179 | | | 0 | | | 0 | | |
| Crit Moves: | **** | | | **** | | | **** | | | | | |

Mather Specific Plan
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 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #15 Grant Line Rd/Douglas Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.802
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 115 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 0 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 795 | 1456 | 0 | 0 | 1175 | 237 | 396 | 0 | 359 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 795 | 1456 | 0 | 0 | 1175 | 237 | 396 | 0 | 359 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 795 | 1456 | 0 | 0 | 1175 | 237 | 396 | 0 | 359 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 795 | 1456 | 0 | 0 | 1175 | 237 | 396 | 0 | 359 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 875 | 1456 | 0 | 0 | 1175 | 237 | 436 | 0 | 359 | 0 | 0 | 0 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 3100 | 3100 | 0 | 0 | 3100 | 1550 | 3100 | 0 | 1550 | 0 | 0 | 0 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.28 | 0.47 | 0.00 | 0.00 | 0.38 | 0.15 | 0.14 | 0.00 | 0.23 | 0.00 | 0.00 | 0.00 |
| Crit Volume: | 437 | | | 588 | | | 218 | | | 0 | | |
| Crit Moves: | **** | | | **** | | | **** | | | | | |

Mather Specific Plan
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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 Grant Line Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.685
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 0 | 2 | 0 | 2 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 125 | 804 | 19 | 38 | 712 | 409 | 391 | 497 | 131 | 126 | 775 | 108 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 125 | 804 | 19 | 38 | 712 | 409 | 391 | 497 | 131 | 126 | 775 | 108 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 125 | 804 | 19 | 38 | 712 | 409 | 391 | 497 | 131 | 126 | 775 | 108 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 125 | 804 | 19 | 38 | 712 | 409 | 391 | 497 | 131 | 126 | 775 | 108 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 |
| Final Volume: | 138 | 804 | 19 | 42 | 712 | 409 | 430 | 497 | 131 | 139 | 775 | 108 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.05 | 0.27 | 0.01 | 0.01 | 0.24 | 0.27 | 0.14 | 0.17 | 0.09 | 0.05 | 0.26 | 0.07 |
| Crit Volume: | 69 | | | 356 | | | 215 | | | 388 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
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AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 Bradshaw Rd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.498
Loss Time (sec): 0 Average Delay (sec/veh): 16.6
Optimal Cycle: 45 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 1171 | 1349 | 0 | 765 | 363 | 0 | 0 | 0 | 861 | 0 | 774 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1171 | 1349 | 0 | 765 | 363 | 0 | 0 | 0 | 861 | 0 | 774 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1171 | 0 | 0 | 765 | 0 | 0 | 0 | 0 | 861 | 0 | 774 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1171 | 0 | 0 | 765 | 0 | 0 | 0 | 0 | 861 | 0 | 774 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 1171 | 0 | 0 | 765 | 0 | 0 | 0 | 0 | 861 | 0 | 774 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.91 | 0.91 | 1.00 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.75 |
| Lanes: | 0.00 | 3.00 | 0.00 | 0.00 | 3.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 |
| Final Sat.: | 0 | 5187 | 0 | 0 | 5187 | 0 | 0 | 0 | 0 | 3502 | 0 | 2842 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.23 | 0.00 | 0.00 | 0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.27 |
| Crit Moves: | **** | | | **** | | | | | | **** | | |
| Green/Cycle: | 0.00 | 0.45 | 0.00 | 0.00 | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.55 | 0.00 | 0.55 |
| Volume/Cap: | 0.00 | 0.50 | 0.00 | 0.00 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.45 | 0.00 | 0.50 |
| Delay/Veh: | 0.0 | 19.5 | 0.0 | 0.0 | 17.6 | 0.0 | 0.0 | 0.0 | 0.0 | 13.8 | 0.0 | 14.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 19.5 | 0.0 | 0.0 | 17.6 | 0.0 | 0.0 | 0.0 | 0.0 | 13.8 | 0.0 | 14.4 |
| LOS by Move: | A | B | A | A | B | A | A | A | A | B | A | B |
| HCM2kAvgQ: | 0 | 9 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 8 | 0 | 9 |

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
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AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.967
Loss Time (sec): 0 Average Delay (sec/veh): 32.3
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.689
Loss Time (sec): 0 Average Delay (sec/veh): 19.4
Optimal Cycle: 73 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
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AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 1.043
Loss Time (sec): 0 Average Delay (sec/veh): 43.7
Optimal Cycle: 180 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 2 0 1 1 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 1297 836 0 2083 213 201 0 1434 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1297 836 0 2083 213 201 0 1434 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1297 836 0 2083 0 201 0 1434 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1297 836 0 2083 0 201 0 1434 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1297 836 0 2083 0 201 0 1434 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 1.00 0.95 1.00 0.86 1.00 0.86 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 0.00 2.00 1.00 1.12 0.00 1.88 0.00 0.00 0.00
Final Sat.: 0 5187 1615 0 3610 1900 1841 0 3077 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.25 0.52 0.00 0.58 0.00 0.11 0.00 0.47 0.00 0.00 0.00
Crit Moves: **** **** ****
Green/Cycle: 0.00 0.55 0.55 0.00 0.55 0.00 0.45 0.00 0.45 0.00 0.00 0.00
Volume/Cap: 0.00 0.45 0.94 0.00 1.04 0.00 0.24 0.00 1.04 0.00 0.00 0.00
Delay/Veh: 0.0 13.4 37.4 0.0 54.8 0.0 17.2 0.0 62.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 13.4 37.4 0.0 54.8 0.0 17.2 0.0 62.5 0.0 0.0 0.0
LOS by Move: A B D A D A B A E A A A
HCM2kAvgQ: 0 9 29 0 45 0 3 0 33 0 0 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.583
Loss Time (sec): 0 Average Delay (sec/veh): 13.6
Optimal Cycle: 55 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 2 0 1 0 0 0 0 0 2 0 0 0 1
Volume Module:
Base Vol: 0 2004 560 0 1288 321 0 0 0 689 0 282
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 2004 560 0 1288 321 0 0 0 689 0 282
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 2004 0 0 1288 0 0 0 0 689 0 282
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2004 0 0 1288 0 0 0 0 689 0 282
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2004 0 0 1288 0 0 0 0 689 0 282
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.92 1.00 0.85
Lanes: 0.00 3.00 1.00 0.00 2.00 1.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 5187 1900 0 3610 1900 0 0 0 3502 0 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.39 0.00 0.00 0.36 0.00 0.00 0.00 0.00 0.20 0.00 0.17
Crit Moves: **** **** ****
Green/Cycle: 0.00 0.66 0.00 0.00 0.66 0.00 0.00 0.00 0.00 0.34 0.00 0.34
Volume/Cap: 0.00 0.58 0.00 0.00 0.54 0.00 0.00 0.00 0.00 0.58 0.00 0.52
Delay/Veh: 0.0 9.5 0.0 0.0 9.1 0.0 0.0 0.0 0.0 28.1 0.0 27.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.5 0.0 0.0 9.1 0.0 0.0 0.0 0.0 28.1 0.0 27.5
LOS by Move: A A A A A A A A A C A C
HCM2kAvgQ: 0 13 0 0 11 0 0 0 0 9 0 7

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Zinfandel Dr/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 1.137
Loss Time (sec): 0 Average Delay (sec/veh): 56.8
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns and 11 rows showing traffic volume and adjustment factors.

Saturation Flow Module table with 11 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module table with 11 columns and 11 rows showing capacity and delay metrics.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
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AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sunrise Blvd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.866
Loss Time (sec): 0 Average Delay (sec/veh): 17.5
Optimal Cycle: 171 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns and 11 rows showing traffic volume and adjustment factors.

Saturation Flow Module table with 11 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module table with 11 columns and 11 rows showing capacity and delay metrics.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
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AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.809
Loss Time (sec): 0 Average Delay (sec/veh): 18.2
Optimal Cycle: 119 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 2040 | 328 | 0 | 2679 | 453 | 1322 | 0 | 832 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 2040 | 328 | 0 | 2679 | 453 | 1322 | 0 | 832 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 2040 | 0 | 0 | 2679 | 0 | 1322 | 0 | 832 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 2040 | 0 | 0 | 2679 | 0 | 1322 | 0 | 832 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 2040 | 0 | 0 | 2679 | 0 | 1322 | 0 | 832 | 0 | 0 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 | 0.92 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 4.00 | 1.00 | 0.00 | 3.00 | 1.00 | 3.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 6916 | 1900 | 0 | 5187 | 1900 | 5253 | 0 | 2842 | 0 | 0 | 0 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.29 | 0.00 | 0.00 | 0.52 | 0.00 | 0.25 | 0.00 | 0.29 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | **** | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.64 | 0.00 | 0.00 | 0.64 | 0.00 | 0.36 | 0.00 | 0.36 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 0.46 | 0.00 | 0.00 | 0.81 | 0.00 | 0.70 | 0.00 | 0.81 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 9.4 | 0.0 | 0.0 | 15.1 | 0.0 | 28.4 | 0.0 | 33.7 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 9.4 | 0.0 | 0.0 | 15.1 | 0.0 | 28.4 | 0.0 | 33.7 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | A | A | A | A | B | A | C | A | C | A | A | A |
| HCM2kAvgQ: | 0 | 9 | 0 | 0 | 24 | 0 | 13 | 0 | 15 | 0 | 0 | 0 |

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Rancho Cordova Pkwy/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.607
Loss Time (sec): 0 Average Delay (sec/veh): 18.3
Optimal Cycle: 58 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 948 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1179 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 948 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1179 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 948 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1179 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 948 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1179 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 948 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1179 | 0 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 1.00 |
| Lanes: | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 1.00 | 0.00 |
| Final Sat.: | 3502 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3502 | 1900 | 0 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.34 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | | | | | | **** | | |
| Green/Cycle: | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 |
| Volume/Cap: | 0.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.61 | 0.00 | 0.00 |
| Delay/Veh: | 21.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.5 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 21.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.5 | 0.0 | 0.0 |
| LOS by Move: | C | A | A | A | A | A | A | A | A | B | A | A |
| HCM2kAvgQ: | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 |

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Rancho Cordova Pkwy/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.327
Loss Time (sec): 0 Average Delay (sec/veh): 0.0
Optimal Cycle: 34 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 2 0 0 0 0 0
Volume Module:
Base Vol: 0 948 1196 0 1179 0 0 0 346 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 948 1196 0 1179 0 0 0 346 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 0 948 0 0 1179 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 948 0 0 1179 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Volume: 0 948 0 0 1179 0 0 0 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 1.00 0.88 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 1.00 2.00 0.00 0.00 0.00
Final Sat.: 0 3610 1900 1900 3610 0 0 1900 3344 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.26 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A A A A A A A A A A A A
HCM2kAvgQ: 0 0 0 0 0 0 0 0 0 0 0 0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Vineyard Rd/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.961
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 2 0 1 1 0 2 0 1
Volume Module:
Base Vol: 216 1311 2 100 700 101 145 583 79 3 1173 394
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 216 1311 2 100 700 101 145 583 79 3 1173 394
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 216 1311 2 100 700 101 145 583 79 3 1173 394
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 216 1311 2 100 700 101 145 583 79 3 1173 394
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 216 1311 2 110 700 101 145 583 79 3 1173 394
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 3000 1500 3000 3000 1500 1500 3000 1500 1500 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.14 0.44 0.00 0.04 0.23 0.07 0.10 0.19 0.05 0.00 0.39 0.26
Crit Volume: 656 55 145 587
Crit Moves: ****
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #28 Vineyard Rd/Jackson Rd(SR-16)

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.802
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 115 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 0 | 1 | 1 | 1 | 0 | 3 | 0 | 1 | 1 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 584 | 1033 | 93 | 164 | 440 | 40 | 71 | 704 | 349 | 117 | 1576 | 351 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 584 | 1033 | 93 | 164 | 440 | 40 | 71 | 704 | 349 | 117 | 1576 | 351 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 584 | 1033 | 93 | 164 | 440 | 40 | 71 | 704 | 349 | 117 | 1576 | 351 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 584 | 1033 | 93 | 164 | 440 | 40 | 71 | 704 | 349 | 117 | 1576 | 351 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 642 | 1033 | 93 | 180 | 440 | 40 | 71 | 704 | 349 | 117 | 1576 | 351 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 1500 | 4500 | 1500 | 1500 | 4500 | 1500 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.21 | 0.34 | 0.06 | 0.06 | 0.15 | 0.03 | 0.05 | 0.16 | 0.23 | 0.08 | 0.35 | 0.23 |
| Crit Volume: | 517 | | 90 | | | 71 | | | 525 | | | 525 |
| Crit Moves: | *** | | *** | | | *** | | | *** | | | *** |

Mather Specific Plan
Future Plus Project
AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #29 Excelsior Rd/Kiefer Blvd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.629
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 61 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 1 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 314 | 449 | 0 | 0 | 118 | 141 | 132 | 528 | 26 | 0 | 1114 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 314 | 449 | 0 | 0 | 118 | 141 | 132 | 528 | 26 | 0 | 1114 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 314 | 449 | 0 | 0 | 118 | 141 | 132 | 528 | 26 | 0 | 1114 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 314 | 449 | 0 | 0 | 118 | 141 | 132 | 528 | 26 | 0 | 1114 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 |
| FinalVolume: | 345 | 449 | 0 | 0 | 118 | 141 | 145 | 528 | 26 | 0 | 1114 | 0 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 3000 | 0 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.12 | 0.15 | 0.00 | 0.00 | 0.04 | 0.09 | 0.05 | 0.18 | 0.02 | 0.00 | 0.37 | 0.00 |
| Crit Volume: | 173 | | | | | 141 | 73 | | | | | 557 |
| Crit Moves: | *** | | | | | *** | *** | | | | | *** |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #30 Excelsior Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.694
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | 1 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 227 | 744 | 240 | 475 | 308 | 262 | 536 | 432 | 138 | 334 | 988 | 1158 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 227 | 744 | 240 | 475 | 308 | 262 | 536 | 432 | 138 | 334 | 988 | 1158 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 227 | 744 | 240 | 475 | 308 | 262 | 536 | 432 | 138 | 334 | 988 | 1158 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 227 | 744 | 240 | 475 | 308 | 262 | 536 | 432 | 138 | 334 | 988 | 1158 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 227 | 744 | 240 | 475 | 308 | 262 | 536 | 432 | 138 | 334 | 988 | 1158 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1500 | 3000 | 1500 | 1500 | 3000 | 1500 | 1500 | 3000 | 1500 | 1500 | 3000 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.15 | 0.25 | 0.16 | 0.32 | 0.10 | 0.17 | 0.36 | 0.14 | 0.09 | 0.22 | 0.33 | 0.77 |
| Crit Volume: | 372 | | 475 | | | 536 | | | | | | 1158 |
| Crit Moves: | *** | | *** | | | *** | | | | | | *** |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #31 Zinfandel Rd/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.985
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 681 | 282 | 397 | 296 | 0 | 0 | 0 | 0 | 181 | 0 | 448 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 681 | 282 | 397 | 296 | 0 | 0 | 0 | 0 | 181 | 0 | 448 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 681 | 282 | 397 | 296 | 0 | 0 | 0 | 0 | 181 | 0 | 448 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 681 | 282 | 397 | 296 | 0 | 0 | 0 | 0 | 181 | 0 | 448 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 681 | 282 | 397 | 296 | 0 | 0 | 0 | 0 | 181 | 0 | 448 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.44 | 0.18 | 0.26 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.00 | 0.29 |
| Crit Volume: | 681 | | 397 | | | 0 | | | | | | 448 |
| Crit Moves: | *** | | *** | | | | | | | | | *** |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #32 Sunrise Blvd/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.966
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 1952 128 444 947 0 0 0 0 271 0 603
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1952 128 444 947 0 0 0 0 271 0 603
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1952 128 444 947 0 0 0 0 271 0 603
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1952 128 444 947 0 0 0 0 271 0 603
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00
FinalVolume: 0 1952 128 488 947 0 0 0 0 298 0 603

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 4650 1550 3100 4650 0 0 0 0 3100 0 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.42 0.08 0.16 0.20 0.00 0.00 0.00 0.00 0.10 0.00 0.39
Crit Volume: 651 244 0
Crit Moves: **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #33 Rancho Cordova Pkwy/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.922
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 3 0 1 1 0 3 0 1

Volume Module:
Base Vol: 284 1130 0 20 1117 1017 406 506 37 0 951 19
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 284 1130 0 20 1117 1017 406 506 37 0 951 19
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 284 1130 0 20 1117 0 406 506 0 0 951 19
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 284 1130 0 20 1117 0 406 506 0 0 951 19
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.10 1.00 0.00 1.00 1.00 1.00
FinalVolume: 284 1130 0 20 1117 0 447 506 0 0 951 19

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 3.00 1.00 1.00 3.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 3000 4500 1500 1500 4500 1500

Capacity Analysis Module:
Vol/Sat: 0.19 0.38 0.00 0.01 0.37 0.00 0.15 0.11 0.00 0.00 0.21 0.01
Crit Volume: 284 559 223 317
Crit Moves: **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #34 Rancho Cordova Pkwy/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.535
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 691 | 830 | 80 | 84 | 358 | 0 | 0 | 397 | 269 | 100 | 729 | 205 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 691 | 830 | 80 | 84 | 358 | 0 | 0 | 397 | 269 | 100 | 729 | 205 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 691 | 830 | 80 | 84 | 358 | 0 | 0 | 397 | 269 | 100 | 729 | 205 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 691 | 830 | 80 | 84 | 358 | 0 | 0 | 397 | 269 | 100 | 729 | 205 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 |
| Final Volume: | 760 | 830 | 80 | 84 | 358 | 0 | 0 | 397 | 269 | 110 | 729 | 205 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 1.82 | 0.18 | 1.00 | 2.00 | 0.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3000 | 2736 | 264 | 1500 | 3000 | 0 | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.25 | 0.30 | 0.30 | 0.06 | 0.12 | 0.00 | 0.00 | 0.09 | 0.18 | 0.04 | 0.16 | 0.14 |
| Crit Volume: | 380 | | | 179 | | | 0 | | | 243 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #35 Rancho Cordova Pkwy/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.720
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 81 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 1 | 2 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 77 | 692 | 96 | 250 | 300 | 84 | 154 | 435 | 64 | 110 | 497 | 512 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 77 | 692 | 96 | 250 | 300 | 84 | 154 | 435 | 64 | 110 | 497 | 512 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 77 | 692 | 96 | 250 | 300 | 84 | 154 | 435 | 64 | 110 | 497 | 512 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 77 | 692 | 96 | 250 | 300 | 84 | 154 | 435 | 64 | 110 | 497 | 512 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 |
| Final Volume: | 85 | 692 | 96 | 275 | 300 | 84 | 169 | 435 | 64 | 121 | 497 | 512 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.23 | 0.06 | 0.09 | 0.10 | 0.06 | 0.06 | 0.15 | 0.04 | 0.04 | 0.17 | 0.34 |
| Crit Volume: | 346 | | | 138 | | | 85 | | | 512 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #36 Rancho Cordova Pkwy/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.511
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 440 430 17 11 343 46 66 312 293 32 632 96
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 440 430 17 11 343 46 66 312 293 32 632 96
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 440 430 17 11 343 46 66 312 293 32 632 96
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 440 430 17 11 343 46 66 312 293 32 632 96
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 484 430 17 12 343 46 73 312 293 35 632 96
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.16 0.14 0.01 0.00 0.11 0.03 0.02 0.10 0.20 0.01 0.21 0.06
Crit Volume: 242 172 36 316
Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #37 Grant Line Rd/Chrysanthy Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.650
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 65 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 429 884 170 133 763 275 351 319 300 104 324 74
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 429 884 170 133 763 275 351 319 300 104 324 74
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 429 884 170 133 763 275 351 319 300 104 324 74
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 429 884 170 133 763 275 351 319 300 104 324 74
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 472 884 170 146 763 275 386 319 300 114 324 74
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.16 0.29 0.11 0.05 0.25 0.18 0.13 0.11 0.20 0.04 0.11 0.05
Crit Volume: 236 382 300 57
Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #38 Grant Line Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.791
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 109 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
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AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #39 Rancho Cordova Pkwy/Grant Line Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.667
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
 Future Plus Project
 AM Peak Hour

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #40 Mather Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 3.262
 Loss Time (sec): 0 Average Delay (sec/veh): 607.8
 Optimal Cycle: 0 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 123 | 621 | 478 | 5 | 70 | 200 | 50 | 0 | 493 | 230 | 730 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 123 | 621 | 478 | 5 | 70 | 200 | 50 | 0 | 493 | 230 | 730 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 123 | 621 | 478 | 5 | 70 | 200 | 50 | 0 | 493 | 230 | 730 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 123 | 621 | 478 | 5 | 70 | 200 | 50 | 0 | 493 | 230 | 730 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 123 | 621 | 478 | 5 | 70 | 200 | 50 | 0 | 493 | 230 | 730 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.17 | 0.83 | 1.00 | 0.07 | 0.93 | 0.80 | 0.20 | 0.00 | 0.34 | 0.16 | 0.50 |
| Final Sat.: | 0 | 75 | 380 | 395 | 30 | 422 | 311 | 78 | 0 | 151 | 71 | 224 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|-------|------|-------|-------|------|------|------|------|------|--------|------|-------|
| Vol/Sat: | xxxx | 1.64 | 1.64 | 1.21 | 0.17 | 0.17 | 0.64 | 0.64 | xxxx | 3.26 | 3.26 | 3.26 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Delay/Veh: | 0.0 | 316 | 316.0 | 144.1 | 12.2 | 12.2 | 27.6 | 27.6 | 0.0 | 1040 | 1040 | 1040 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 316 | 316.0 | 144.1 | 12.2 | 12.2 | 27.6 | 27.6 | 0.0 | 1040 | 1040 | 1040 |
| LOS by Move: | * | F | F | F | B | B | D | D | * | F | F | F |
| ApproachDel: | 316.0 | | | 126.2 | | | 27.6 | | | 1040.4 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 316.0 | | | 126.2 | | | 27.6 | | | 1040.4 | | |
| LOS by Appr: | F | | | F | | | D | | | F | | |
| AllWayAvgQ: | 38.6 | 38.6 | 38.6 | 14.5 | 0.2 | 0.2 | 1.7 | 1.7 | 1.7 | 127 | 127 | 127.4 |

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Scenario Report
Scenario: Future PM No Project

Command: Future PM No Project
Volume: Future PM No Project
Geometry: Future No Project
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Future PM No Project

Mather Specific Plan
Future No Project
PM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|-----------------|---------|-----------------|---------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 1 Bradshaw Rd/Old Placerville Rd | F xxxxx | 1.735 | F xxxxx | 1.735 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | F xxxxx | 1.461 | F xxxxx | 1.461 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | F xxxxx | 1.174 | F xxxxx | 1.174 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | F xxxxx | 1.760 | F xxxxx | 1.760 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | F xxxxx | 1.142 | F xxxxx | 1.142 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | E xxxxx | 0.955 | E xxxxx | 0.955 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | F xxxxx | 1.283 | F xxxxx | 1.283 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | F xxxxx | 1.071 | F xxxxx | 1.071 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | A xxxxx | 0.600 | A xxxxx | 0.600 | + 0.000 V/C |
| # 10 Sunrise Blvd/White Rock Rd | C xxxxx | 0.705 | C xxxxx | 0.705 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | F xxxxx | 1.058 | F xxxxx | 1.058 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | B xxxxx | 0.664 | B xxxxx | 0.664 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | D xxxxx | 0.828 | D xxxxx | 0.828 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | D xxxxx | 0.872 | D xxxxx | 0.872 | + 0.000 V/C |
| # 15 Grant Line Rd/Douglas Rd | E xxxxx | 0.909 | E xxxxx | 0.909 | + 0.000 V/C |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | B xxxxx | 0.631 | B xxxxx | 0.631 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B 17.4 | 0.582 | B 17.4 | 0.582 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C 26.5 | 0.874 | C 26.5 | 0.874 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | B 13.3 | 0.923 | B 13.3 | 0.923 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | D 43.5 | 1.172 | D 43.5 | 1.172 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | B 16.9 | 0.736 | B 16.9 | 0.736 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | F 115.4 | 1.319 | F 115.4 | 1.319 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | B 19.1 | 0.944 | B 19.1 | 0.944 | + 0.000 D/V |

Mather Specific Plan
Future No Project
PM Peak Hour

| Intersection | Base | | Future | | Change in | |
|-------------------------------------|-----------------|---------|-----------------|---------|--------------|-----|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | | |
| # 24 Sunrise Blvd/US-50 EB Ramps | B 17.0 | 0.663 | B 17.0 | 0.663 | + 0.000 | D/V |
| # 25 Rancho Cordova Pkwy/US-50 WB R | C 21.8 | 0.750 | C 21.8 | 0.750 | + 0.000 | D/V |
| # 26 Rancho Cordova Pkwy/US-50 EB R | A 0.1 | 0.375 | A 0.1 | 0.375 | + 0.000 | D/V |
| # 27 Vineyard Rd/Kiefer Blvd | E xxxxx | 0.916 | E xxxxx | 0.916 | + 0.000 | V/C |
| # 28 Vineyard Rd/Jackson Rd(SR-16) | E xxxxx | 0.906 | E xxxxx | 0.906 | + 0.000 | V/C |
| # 29 Excelsior Rd/Kiefer Blvd | A xxxxx | 0.487 | A xxxxx | 0.487 | + 0.000 | V/C |
| # 30 Zinfandel Rd/Douglas Rd | F xxxxx | 1.504 | F xxxxx | 1.504 | + 0.000 | V/C |
| # 32 Sunrise Blvd/Chrysanthy Blvd | D xxxxx | 0.809 | D xxxxx | 0.809 | + 0.000 | V/C |
| # 33 Rancho Cordova Pkwy/White Rock | F xxxxx | 1.034 | F xxxxx | 1.034 | + 0.000 | V/C |
| # 34 Rancho Cordova Pkwy/Douglas Rd | C xxxxx | 0.769 | C xxxxx | 0.769 | + 0.000 | V/C |
| # 35 Rancho Cordova Pkwy/Chrysanthy | A xxxxx | 0.586 | A xxxxx | 0.586 | + 0.000 | V/C |
| # 36 Rancho Cordova Pkwy/Kiefer Blv | A xxxxx | 0.550 | A xxxxx | 0.550 | + 0.000 | V/C |
| # 37 Grant Line Rd/Chrysanthy Blvd | C xxxxx | 0.729 | C xxxxx | 0.729 | + 0.000 | V/C |
| # 38 Grant Line Rd/Kiefer Blvd | D xxxxx | 0.856 | D xxxxx | 0.856 | + 0.000 | V/C |
| # 39 Rancho Cordova Pkwy/Grant Line | A xxxxx | 0.500 | A xxxxx | 0.500 | + 0.000 | V/C |
| # 40 Mather Blvd/Douglas Rd | F 345.7 | 2.534 | F 345.7 | 2.534 | + 0.000 | V/C |

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

| | | | |
|------------------|-----|--------------------------|--------|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 1.735 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 180 | Level Of Service: | F |

| | | | | |
|-----------|-------------|-------------|------------|------------|
| Approach: | North Bound | South Bound | East Bound | West Bound |
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |

-----|-----|-----|-----|

| | | | | |
|----------|-----------|-----------|-------------|-------------|
| Control: | Protected | Protected | Split Phase | Split Phase |
| Rights: | Include | Include | Include | Include |

| | | | | |
|-------------|-------------|-------------|-------------|-------------|
| Min. Green: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Y+R: | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 |
| Lanes: | 1 0 3 0 1 | 2 0 2 1 0 | 1 0 0 1 0 | 2 0 1 0 1 |

-----|-----|-----|-----|

Volume Module:

| | | | | |
|---------------|----------------|----------------|----------------|------------------|
| Base Vol: | 40 1455 1009 | 775 2089 | 57 55 33 | 20 1086 152 1151 |
| Growth Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| Initial Bse: | 40 1455 1009 | 775 2089 | 57 55 33 | 20 1086 152 1151 |
| User Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| PHP Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| PHP Volume: | 40 1455 1009 | 775 2089 | 57 55 33 | 20 1086 152 1151 |
| Reduced Vol: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Reduced Vol: | 40 1455 1009 | 775 2089 | 57 55 33 | 20 1086 152 1151 |
| PCE Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| MLF Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| Final Volume: | 40 1455 1009 | 775 2089 | 57 55 33 | 20 1086 152 1151 |

-----|-----|-----|-----|

Saturation Flow Module:

| | | | | |
|-------------|----------------|----------------|----------------|----------------|
| Sat/Lane: | 1500 1500 1500 | 1500 1500 1500 | 1500 1500 1500 | 1500 1500 1500 |
| Adjustment: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| Lanes: | 1.00 3.00 1.00 | 2.00 2.92 0.08 | 1.00 0.62 0.38 | 2.00 1.00 1.00 |
| Final Sat.: | 1500 4500 1500 | 3000 4380 120 | 1500 934 566 | 3000 1500 1500 |

-----|-----|-----|-----|

Capacity Analysis Module:

| | | | | |
|--------------|----------------|----------------|----------------|----------------|
| Vol/Sat: | 0.03 0.32 0.67 | 0.26 0.48 0.48 | 0.04 0.04 0.04 | 0.36 0.10 0.77 |
| Crit Volume: | 1009 388 | 55 | | 1151 |
| Crit Moves: | **** | **** | **** | **** |

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.461
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns representing different traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 10 columns for Sat/Lane and 10 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for Vol/Sat and 10 rows for Crit Volume, Crit Moves, etc.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 1.174
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns representing different traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 10 columns for Sat/Lane and 10 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for Vol/Sat and 10 rows for Crit Volume, Crit Moves, etc.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Routier Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.760
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 0 | 0 | 289 | 0 | 749 | 660 | 2264 | 0 | 0 | 2638 | 332 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 289 | 0 | 749 | 660 | 2264 | 0 | 0 | 2638 | 332 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 0 | 0 | 0 | 289 | 0 | 749 | 660 | 2264 | 0 | 0 | 2638 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 289 | 0 | 749 | 660 | 2264 | 0 | 0 | 2638 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Final Volume: | 0 | 0 | 0 | 289 | 0 | 749 | 660 | 2264 | 0 | 0 | 2638 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 0 | 0 | 0 | 3100 | 0 | 1550 | 1550 | 3100 | 0 | 0 | 3100 | 1550 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 0.48 | 0.43 | 0.73 | 0.00 | 0.00 | 0.85 | 0.00 |
| Crit Volume: | 0 | 0 | 0 | 749 | 660 | 1319 | 0 | 0 | 0 | 0 | 0 | 0 |
| Crit Moves: | | | | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Mather Field Rd/Rockingham Dr

Cycle (sec): 100 Critical Vol./Cap. (X): 1.142
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 1 | 0 | 3 | 0 | 1 | 1 | 1 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 50 | 2463 | 26 | 136 | 1496 | 647 | 1082 | 60 | 95 | 18 | 159 | 125 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 50 | 2463 | 26 | 136 | 1496 | 647 | 1082 | 60 | 95 | 18 | 159 | 125 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 50 | 2463 | 26 | 136 | 1496 | 0 | 1082 | 60 | 95 | 18 | 159 | 125 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 2463 | 26 | 136 | 1496 | 0 | 1082 | 60 | 95 | 18 | 159 | 125 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 50 | 2463 | 26 | 136 | 1496 | 0 | 1082 | 60 | 95 | 18 | 159 | 125 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.97 | 0.03 | 1.00 | 3.00 | 1.00 | 1.89 | 0.11 | 1.00 | 0.10 | 0.90 | 1.00 |
| Final Sat.: | 1500 | 4453 | 47 | 1500 | 4500 | 1500 | 2842 | 158 | 1500 | 153 | 1347 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.55 | 0.55 | 0.09 | 0.33 | 0.00 | 0.38 | 0.38 | 0.06 | 0.12 | 0.12 | 0.08 |
| Crit Volume: | 830 | 136 | 571 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.955
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Ovl Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 3 0 1 2 0 2 0 1

Volume Module:
Base Vol: 497 313 164 143 953 90 180 1001 833 247 622 17
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 497 313 164 143 953 90 180 1001 833 247 622 17
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 497 313 164 143 953 90 180 1001 833 247 622 17
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 497 313 164 143 953 90 180 1001 833 247 622 17
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 497 313 164 143 953 90 180 1001 833 247 622 17

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 4500 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.17 0.10 0.11 0.05 0.32 0.06 0.06 0.22 0.56 0.08 0.21 0.01
Crit Volume: 0 477 833 123
Crit Moves: **** **** **** ****

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Zinfandel Dr/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.283
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 2 1 0 2 0 1 1 1

Volume Module:
Base Vol: 38 2464 117 339 2174 508 764 241 14 139 283 13
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 38 2464 117 339 2174 508 764 241 14 139 283 13
User Adj: 1.00 1.50 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 38 3696 117 339 2174 508 764 241 14 139 283 13
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 38 3696 117 339 2174 508 764 241 14 139 283 13
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 38 3696 117 339 2174 508 764 241 14 139 283 13

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.84 0.16 2.00 2.00 1.00
Final Sat.: 3000 4500 1500 3000 4500 1500 3000 4253 247 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.01 0.82 0.08 0.11 0.48 0.34 0.25 0.06 0.06 0.05 0.09 0.01
Crit Volume: 1232 170 382 142
Crit Moves: **** **** **** ****

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Zinfandel Dr/International Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.071
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity analysis metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.600
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 57 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity analysis metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd

Cycle (sec): 180 Critical Vol./Cap. (X): 0.705
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 77 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.058
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
 Future No Project
 PM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #12 Sunrise Blvd/Kiefer Blvd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.664
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 68 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 |

 Volume Module:
 Base Vol: 68 895 19 466 1683 7 212 777 121 26 465 240
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 68 895 19 466 1683 7 212 777 121 26 465 240
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 68 895 19 466 1683 7 212 777 121 26 465 240
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 68 895 19 466 1683 7 212 777 121 26 465 240
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 68 895 19 466 1683 7 212 777 121 26 465 240

 Saturation Flow Module:
 Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3000 4500 1500 3000 4500 1500 3000 3000 1500 3000 3000 1500

 Capacity Analysis Module:
 Vol/Sat: 0.02 0.20 0.01 0.16 0.37 0.00 0.07 0.26 0.08 0.01 0.16 0.16
 Crit Volume: 34 561 389 13
 Crit Moves: **** **** **** ****

Mather Specific Plan
 Future No Project
 PM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.828
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 133 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lanes: | 2 | 0 | 2 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 2 |

 Volume Module:
 Base Vol: 8 710 282 155 1461 154 132 1204 20 298 713 117
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 8 710 282 155 1461 154 132 1204 20 298 713 117
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 8 710 282 155 1461 154 132 1204 20 298 713 117
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 8 710 282 155 1461 154 132 1204 20 298 713 117
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 8 710 282 155 1461 154 132 1204 20 298 713 117

 Saturation Flow Module:
 Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3000 3000 1500 3000 4500 1500 3000 3000 1500 3000 3000 1500

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.24 0.19 0.05 0.32 0.10 0.04 0.40 0.01 0.10 0.24 0.08
 Crit Volume: 4 487 602 149
 Crit Moves: **** **** **** ****

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #14 Grant Line Rd/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.872
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 178 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes values for Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for capacity values and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #15 Grant Line Rd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.909
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes values for Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for capacity values and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 Grant Line Rd/Jackson Rd(SR-16)
Cycle (sec): 100 Critical Vol./Cap. (X): 0.631
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 140 675 44 44 739 368 343 966 135 48 526 42
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 140 675 44 44 739 368 343 966 135 48 526 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 140 675 44 44 739 368 343 966 135 48 526 42
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 140 675 44 44 739 368 343 966 135 48 526 42
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 140 675 44 44 739 368 343 966 135 48 526 42
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.05 0.23 0.03 0.01 0.25 0.25 0.11 0.32 0.09 0.02 0.18 0.03
Crit Volume: 70 370 483 24
Crit Moves: **** **** **** ****

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 Bradshaw Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.582
Loss Time (sec): 0 Average Delay (sec/veh): 17.4
Optimal Cycle: 55 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 2.0 0 0 2
Lanes: 0 0 2 1 0 0 0 2 1 0 0 0 0 0 0 2
Volume Module:
Base Vol: 0 669 1480 0 1237 1276 0 0 0 1202 0 601
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 669 1480 0 1237 1276 0 0 0 1202 0 601
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 669 0 0 1237 0 0 0 0 1202 0 601
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 669 0 0 1237 0 0 0 0 1202 0 601
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 669 0 0 1237 0 0 0 0 1202 0 601
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 1.00 1.00 1.00 0.92 1.00 0.75
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 2.00
Final Sat.: 0 5187 0 0 5187 0 0 0 0 3502 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.13 0.00 0.00 0.24 0.00 0.00 0.00 0.00 0.34 0.00 0.21
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.41 0.00 0.00 0.41 0.00 0.00 0.00 0.00 0.59 0.00 0.59
Volume/Cap: 0.00 0.31 0.00 0.00 0.58 0.00 0.00 0.00 0.00 0.58 0.00 0.36
Delay/Veh: 0.0 20.1 0.0 0.0 23.3 0.0 0.0 0.0 0.0 13.2 0.0 10.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 20.1 0.0 0.0 23.3 0.0 0.0 0.0 0.0 13.2 0.0 10.8
LOS by Move: A C A A C A A A A B A B
HCM2kAvgQ: 0 5 0 0 11 0 0 0 0 12 0 5

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.874
Loss Time (sec): 0 Average Delay (sec/veh): 26.5
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.923
Loss Time (sec): 0 Average Delay (sec/veh): 13.3
Optimal Cycle: 180 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 1.172
Loss Time (sec): 0 Average Delay (sec/veh): 43.5
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Growth Adj, Initial Bse, User Adj, etc.).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.736
Loss Time (sec): 0 Average Delay (sec/veh): 16.9
Optimal Cycle: 86 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Growth Adj, Initial Bse, User Adj, etc.).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Zinfandel Dr/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 1.319
Loss Time (sec): 0 Average Delay (sec/veh): 115.4
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sunrise Blvd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.944
Loss Time (sec): 0 Average Delay (sec/veh): 19.1
Optimal Cycle: 180 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol., Growth Adj., Initial Bse, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.663
Loss Time (sec): 0 Average Delay (sec/veh): 17.0
Optimal Cycle: 68 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 0 0 3 0 1 3 0 0 0 2 0 0 0 0 0
Volume Module:
Base Vol: 0 2637 393 0 1484 489 1482 0 480 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 2637 393 0 1484 489 1482 0 480 0 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 2637 0 0 1484 0 1482 0 480 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2637 0 0 1484 0 1482 0 480 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 2637 0 0 1484 0 1482 0 480 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 1.00 1.00 0.91 1.00 0.92 1.00 0.75 1.00 1.00 1.00
Lanes: 0.00 4.00 1.00 0.00 3.00 1.00 3.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 6916 1900 0 5187 1900 5253 0 2842 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.38 0.00 0.00 0.29 0.00 0.28 0.00 0.17 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.57 0.00 0.00 0.57 0.00 0.43 0.00 0.43 0.00 0.00 0.00
Volume/Cap: 0.00 0.66 0.00 0.00 0.50 0.00 0.66 0.00 0.40 0.00 0.00 0.00
Delay/Veh: 0.0 15.0 0.0 0.0 12.8 0.0 23.8 0.0 20.1 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 15.0 0.0 0.0 12.8 0.0 23.8 0.0 20.1 0.0 0.0 0.0
LOS by Move: A B A A B A C A C A A A
HCM2kAvgQ: 0 16 0 0 10 0 13 0 6 0 0 0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Rancho Cordova Pkwy/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.750
Loss Time (sec): 0 Average Delay (sec/veh): 21.8
Optimal Cycle: 91 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 0 0 0 0 0 0 0 0 2 0 1 0 0
Volume Module:
Base Vol: 1273 0 0 0 0 0 0 0 0 0 1353 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1273 0 0 0 0 0 0 0 0 0 1353 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1273 0 0 0 0 0 0 0 0 0 1353 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1273 0 0 0 0 0 0 0 0 0 1353 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 1273 0 0 0 0 0 0 0 0 0 1353 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.92 1.00 1.00
Lanes: 2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 0.00
Final Sat.: 3502 0 0 0 0 0 0 0 0 0 3502 1900 0
Capacity Analysis Module:
Vol/Sat: 0.36 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.39 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.48 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.52 0.00 0.00
Volume/Cap: 0.75 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.75 0.00 0.00
Delay/Veh: 22.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.9 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 22.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.9 0.0 0.0
LOS by Move: C A A A A A A A A C A A
HCM2kAvgQ: 17 0 0 0 0 0 0 0 0 18 0 0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Rancho Cordova Pkwy/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.375
Loss Time (sec): 0 Average Delay (sec/veh): 0.1
Optimal Cycle: 36 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 2 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Vineyard Rd/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.916
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 2 0 1 1 0 2 0 1
Volume Module:
Base Vol: 144 1097 1 388 1319 205 166 1138 257 1 624 137
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 144 1097 1 388 1319 205 166 1138 257 1 624 137
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 144 1097 1 388 1319 205 166 1138 257 1 624 137
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 144 1097 1 388 1319 205 166 1138 257 1 624 137
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 144 1097 1 388 1319 205 166 1138 257 1 624 137
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 3000 1500 3000 3000 1500 1500 3000 1500 1500 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.10 0.37 0.00 0.13 0.44 0.14 0.11 0.38 0.17 0.00 0.21 0.09
Crit Volume: 144 660 569 1
Crit Moves: ****

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #28 Vineyard Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.906
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns representing traffic volumes for different movements and adjustments.

Saturation Flow Module table with 11 columns representing saturation flow rates for different movements.

Capacity Analysis Module table with 11 columns representing capacity analysis metrics.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #29 Excelsior Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.487
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns representing traffic volumes for different movements and adjustments.

Saturation Flow Module table with 11 columns representing saturation flow rates for different movements.

Capacity Analysis Module table with 11 columns representing capacity analysis metrics.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #30 Zinfandel Rd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.504
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #32 Sunrise Blvd/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.809
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 119 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns for traffic volumes and 10 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #33 Rancho Cordova Pkwy/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.034
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns for traffic volume and 10 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 10 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for capacity analysis and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #34 Rancho Cordova Pkwy/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.769
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 99 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns for traffic volume and 10 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 10 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for capacity analysis and 4 rows for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #35 Rancho Cordova Pkwy/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.586
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #36 Rancho Cordova Pkwy/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.550
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow values and 5 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 11 columns for capacity metrics and 4 rows for Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #37 Grant Line Rd/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.729
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 84 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing different traffic flows and 10 rows of adjustment factors (Base Vol, Growth Adj, etc.)

Saturation Flow Module table with 12 columns and 5 rows (Sat/Lane, Adjustment, Lanes, Final Sat.)

Capacity Analysis Module table with 12 columns and 4 rows (Vol/Sat, Crit Volume, Crit Moves)

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #38 Grant Line Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.856
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 158 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing different traffic flows and 10 rows of adjustment factors (Base Vol, Growth Adj, etc.)

Saturation Flow Module table with 12 columns and 5 rows (Sat/Lane, Adjustment, Lanes, Final Sat.)

Capacity Analysis Module table with 12 columns and 4 rows (Vol/Sat, Crit Volume, Crit Moves)

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #39 Rancho Cordova Pkwy/Grant Line Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.500
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: A

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 6 | 1056 | 0 | 0 | 1177 | 448 | 360 | 0 | 4 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 6 | 1056 | 0 | 0 | 1177 | 448 | 360 | 0 | 4 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 6 | 1056 | 0 | 0 | 1177 | 448 | 360 | 0 | 4 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 6 | 1056 | 0 | 0 | 1177 | 448 | 360 | 0 | 4 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 6 | 1056 | 0 | 0 | 1177 | 448 | 360 | 0 | 4 | 0 | 0 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1550 | 3100 | 0 | 0 | 3100 | 1550 | 3100 | 0 | 1550 | 0 | 0 | 0 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.34 | 0.00 | 0.00 | 0.38 | 0.29 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Crit Volume: | 6 | 589 | | | 180 | | | | | 0 | | |
| Crit Moves: | **** | **** | | | **** | | | | | | | |

Mather Specific Plan
Future No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #40 Mather Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.534
Loss Time (sec): 0 Average Delay (sec/veh): 345.7
Optimal Cycle: 0 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 0 | 527 | 620 | 0 | 65 | 200 | 50 | 0 | 713 | 260 | 120 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 527 | 620 | 0 | 65 | 200 | 50 | 0 | 713 | 260 | 120 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 527 | 620 | 0 | 65 | 200 | 50 | 0 | 713 | 260 | 120 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 527 | 620 | 0 | 65 | 200 | 50 | 0 | 713 | 260 | 120 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 527 | 620 | 0 | 65 | 200 | 50 | 0 | 713 | 260 | 120 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.00 | 1.00 | 1.81 | 0.00 | 0.19 | 0.80 | 0.20 | 0.00 | 0.65 | 0.24 | 0.11 |
| Final Sat.: | 0 | 0 | 463 | 1089 | -383 | 73 | 310 | 78 | 0 | 281 | 103 | 47 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|-------|------|-------|------|------|------|------|------|------|-------|------|-------|
| Vol/Sat: | xxxx | xxxx | 1.14 | 0.57 | 0.00 | 0.89 | 0.64 | 0.64 | xxxx | 2.53 | 2.53 | 2.53 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| Delay/Veh: | 0.0 | 0.0 | 112.7 | 52.0 | 53.9 | 53.9 | 27.4 | 27.4 | 0.0 | 715.3 | 715 | 715.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 112.7 | 52.0 | 53.9 | 53.9 | 27.4 | 27.4 | 0.0 | 715.3 | 715 | 715.3 |
| LOS by Move: | * | * | F | F | F | F | D | D | * | F | F | F |
| ApproachDel: | 112.7 | | | 51.3 | | | 27.4 | | | 715.3 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 112.7 | | | 51.3 | | | 27.4 | | | 715.3 | | |
| LOS by Appr: | F | | | F | | | D | | | F | | |
| AllWayAvgQ: | 13.1 | 13.1 | 13.1 | 4.5 | 4.5 | 4.5 | 1.6 | 1.6 | 1.6 | 84.3 | 84.3 | 84.3 |

Note: Queue reported is the number of cars per lane.

05 Future Plus Project

Mather Specific Plan
Future Plus Project
AM Peak Hour

Scenario: Future AM Plus Project

Scenario Report
Future AM Plus Project

Command: Future AM Plus Project
Volume: Future AM Plus Project
Geometry: Future Plus Project
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Future AM Plus Project

Mather Specific Plan
Future Plus Project
AM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|-------------|-------------|-------------|-------------|--------------|
| | Del/ LOS | V/ Veh | Del/ LOS | V/ Veh | |
| # 1 Bradshaw Rd/Old Placerville Rd | F | xxxxx 2.020 | F | xxxxx 2.020 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | F | xxxxx 2.070 | F | xxxxx 2.070 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | E | xxxxx 0.992 | E | xxxxx 0.992 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | F | xxxxx 1.395 | F | xxxxx 1.395 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | C | xxxxx 0.790 | C | xxxxx 0.790 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | D | xxxxx 0.825 | D | xxxxx 0.825 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | D | xxxxx 0.811 | D | xxxxx 0.811 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | F | xxxxx 1.034 | F | xxxxx 1.034 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | A | xxxxx 0.559 | A | xxxxx 0.559 | + 0.000 V/C |
| # 10 Sunrise Blvd/White Rock Rd | C | xxxxx 0.765 | C | xxxxx 0.765 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | F | xxxxx 1.107 | F | xxxxx 1.107 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | C | xxxxx 0.749 | C | xxxxx 0.749 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | E | xxxxx 0.963 | E | xxxxx 0.963 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | C | xxxxx 0.772 | C | xxxxx 0.772 | + 0.000 V/C |
| # 15 Grant Line Rd/Douglas Rd | D | xxxxx 0.802 | D | xxxxx 0.802 | + 0.000 V/C |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | B | xxxxx 0.685 | B | xxxxx 0.685 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B | 16.6 0.498 | B | 16.6 0.498 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C | 32.3 0.967 | C | 32.3 0.967 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | B | 19.4 0.689 | B | 19.4 0.689 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | D | 43.7 1.043 | D | 43.7 1.043 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | B | 13.6 0.583 | B | 13.6 0.583 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | E | 56.8 1.137 | E | 56.8 1.137 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | B | 17.5 0.866 | B | 17.5 0.866 | + 0.000 D/V |

Mather Specific Plan
Future Plus Project
AM Peak Hour

| Intersection | Base | | Future | | Change in | |
|-------------------------------------|------|-------------|--------|-------------|--------------|-----|
| | LOS | Veh C | LOS | Veh C | | |
| # 24 Sunrise Blvd/US-50 EB Ramps | B | 18.2 0.809 | B | 18.2 0.809 | + 0.000 | D/V |
| # 25 Rancho Cordova Pkwy/US-50 WB R | B | 18.3 0.607 | B | 18.3 0.607 | + 0.000 | D/V |
| # 26 Rancho Cordova Pkwy/US-50 EB R | A | 0.0 0.327 | A | 0.0 0.327 | + 0.000 | D/V |
| # 27 Vineyard Rd/Kiefer Blvd | E | xxxxx 0.961 | E | xxxxx 0.961 | + 0.000 | V/C |
| # 28 Vineyard Rd/Jackson Rd(SR-16) | D | xxxxx 0.802 | D | xxxxx 0.802 | + 0.000 | V/C |
| # 29 Excelsior Rd/Kiefer Blvd | B | xxxxx 0.629 | B | xxxxx 0.629 | + 0.000 | V/C |
| # 30 Excelsior Rd/Kiefer Blvd | F | xxxxx 1.694 | F | xxxxx 1.694 | + 0.000 | V/C |
| # 31 Zinfandel Rd/Chrysanthy Blvd | E | xxxxx 0.985 | E | xxxxx 0.985 | + 0.000 | V/C |
| # 32 Sunrise Blvd/Chrysanthy Blvd | E | xxxxx 0.966 | E | xxxxx 0.966 | + 0.000 | V/C |
| # 33 Rancho Cordova Pkwy/White Rock | E | xxxxx 0.922 | E | xxxxx 0.922 | + 0.000 | V/C |
| # 34 Rancho Cordova Pkwy/Douglas Rd | A | xxxxx 0.535 | A | xxxxx 0.535 | + 0.000 | V/C |
| # 35 Rancho Cordova Pkwy/Chrysanthy | C | xxxxx 0.720 | C | xxxxx 0.720 | + 0.000 | V/C |
| # 36 Rancho Cordova Pkwy/Kiefer Blv | A | xxxxx 0.511 | A | xxxxx 0.511 | + 0.000 | V/C |
| # 37 Grant Line Rd/Chrysanthy Blvd | B | xxxxx 0.650 | B | xxxxx 0.650 | + 0.000 | V/C |
| # 38 Grant Line Rd/Kiefer Blvd | C | xxxxx 0.791 | C | xxxxx 0.791 | + 0.000 | V/C |
| # 39 Rancho Cordova Pkwy/Grant Line | B | xxxxx 0.667 | B | xxxxx 0.667 | + 0.000 | V/C |
| # 40 Mather Blvd/Douglas Rd | F | 607.8 3.262 | F | 607.8 3.262 | + 0.000 | V/C |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

| | | | |
|------------------|-----|--------------------------|--------|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 2.020 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 180 | Level Of Service: | F |

| | | | | |
|-----------|-------------|-------------|------------|------------|
| Approach: | North Bound | South Bound | East Bound | West Bound |
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |

-----|-----|-----|-----|

| | | | | |
|-------------|-------------|-------------|-------------|-------------|
| Control: | Protected | Protected | Split Phase | Split Phase |
| Rights: | Include | Include | Include | Include |
| Min. Green: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Y+R: | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 |
| Lanes: | 1 0 3 0 1 | 2 0 2 1 0 | 1 0 0 1 0 | 2 0 1 0 1 |

-----|-----|-----|-----|

Volume Module:

| | | |
|---------------|-------------------------------|-------------------------------|
| Base Vol: | 48 1735 1307 1114 1119 | 39 59 40 26 791 22 1045 |
| Growth Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| Initial Bse: | 48 1735 1307 1114 1119 39 | 59 40 26 791 22 1045 |
| User Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| PHP Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| PHP Volume: | 48 1735 1307 1114 1119 39 | 59 40 26 791 22 1045 |
| Reduced Vol: | 0 0 0 0 0 0 | 0 0 0 0 0 0 |
| Reduced Vol: | 48 1735 1307 1114 1119 39 | 59 40 26 791 22 1045 |
| PCE Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| MLF Adj: | 1.00 1.00 1.00 1.10 1.00 1.00 | 1.00 1.00 1.00 1.10 1.00 1.00 |
| Final Volume: | 48 1735 1307 1225 1119 39 | 59 40 26 870 22 1045 |

-----|-----|-----|-----|

Saturation Flow Module:

| | | |
|-------------|-------------------------------|-------------------------------|
| Sat/Lane: | 1500 1500 1500 1500 1500 1500 | 1500 1500 1500 1500 1500 1500 |
| Adjustment: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| Lanes: | 1.00 3.00 1.00 2.00 2.90 0.10 | 1.00 0.61 0.39 2.00 1.00 1.00 |
| Final Sat.: | 1500 4500 1500 3000 4348 152 | 1500 909 591 3000 1500 1500 |

-----|-----|-----|-----|

Capacity Analysis Module:

| | | |
|--------------|-------------------------------|-------------------------------|
| Vol/Sat: | 0.03 0.39 0.87 0.41 0.26 0.26 | 0.04 0.04 0.04 0.29 0.01 0.70 |
| Crit Volume: | 1307 613 | 66 1045 |
| Crit Moves: | **** **** | **** **** |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 2.070
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 51 | 2488 | 338 | 345 | 1041 | 297 | 598 | 764 | 42 | 217 | 1094 | 404 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.76 | 0.24 | 1.00 | 2.33 | 0.67 | 1.00 | 1.90 | 0.10 | 1.00 | 1.46 | 0.54 |
| Final Sat.: | 1500 | 2641 | 359 | 1500 | 3501 | 999 | 1500 | 2844 | 156 | 1500 | 2191 | 809 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.03 | 0.94 | 0.94 | 0.23 | 0.30 | 0.30 | 0.40 | 0.27 | 0.27 | 0.14 | 0.50 | 0.50 |
| Crit Volume: | | 1413 | 345 | | 598 | | | | | | 749 | |
| Crit Moves: | | **** | **** | | **** | | | **** | | | **** | |

Mather Specific Plan
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AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.992
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 520 | 1977 | 303 | 173 | 993 | 52 | 256 | 1291 | 405 | 371 | 1780 | 430 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 520 | 1977 | 303 | 173 | 993 | 52 | 256 | 1291 | 405 | 371 | 1780 | 430 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 520 | 1977 | 303 | 173 | 993 | 52 | 256 | 1291 | 405 | 371 | 1780 | 430 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 520 | 1977 | 303 | 173 | 993 | 52 | 256 | 1291 | 405 | 371 | 1780 | 430 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 |
| Final Volume: | 572 | 1977 | 303 | 190 | 993 | 52 | 282 | 1291 | 405 | 408 | 1780 | 430 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.19 | 0.44 | 0.20 | 0.06 | 0.22 | 0.03 | 0.09 | 0.29 | 0.27 | 0.14 | 0.40 | 0.29 |
| Crit Volume: | | 659 | 95 | | 141 | | | 593 | | | 593 | |
| Crit Moves: | | **** | **** | | **** | | | **** | | | **** | |

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Routier Rd/Old Placerville Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 1.395
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 2 0 0 0 0 2 0 1
Volume Module:
Base Vol: 0 0 0 357 0 489 617 2906 0 0 2111 270
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 357 0 489 617 2906 0 0 2111 270
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 0 0 0 357 0 489 617 2906 0 0 2111 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 357 0 489 617 2906 0 0 2111 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Volume: 0 0 0 393 0 489 617 2906 0 0 2111 0
Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3100 0 1550 1550 3100 0 0 3100 1550
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.13 0.00 0.32 0.40 0.94 0.00 0.00 0.68 0.00
Crit Volume: 0 489 617 1056
Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Mather Field Rd/Rockingham Dr
Cycle (sec): 100 Critical Vol./Cap. (X): 0.790
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 108 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Split Phase Split Phase
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 1 0 1 0 3 0 1 1 1 0 0 1 0 1 0 0 1
Volume Module:
Base Vol: 47 1523 14 82 2225 1155 415 47 174 23 69 144
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 47 1523 14 82 2225 1155 415 47 174 23 69 144
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 47 1523 14 82 2225 0 415 47 174 23 69 144
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 47 1523 14 82 2225 0 415 47 174 23 69 144
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.10 1.00 1.00 1.00 1.00 1.00
Final Volume: 47 1523 14 82 2225 0 457 47 174 23 69 144
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.97 0.03 1.00 3.00 1.00 1.81 0.19 1.00 0.25 0.75 1.00
Final Sat.: 1500 4459 41 1500 4500 1500 2720 280 1500 375 1125 1500
Capacity Analysis Module:
Vol/Sat: 0.03 0.34 0.34 0.05 0.49 0.00 0.17 0.17 0.12 0.06 0.06 0.10
Crit Volume: 47 742 252 144
Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.825
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 130 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 904 | 938 | 278 | 11 | 254 | 58 | 69 | 537 | 320 | 186 | 1151 | 292 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 904 | 938 | 278 | 11 | 254 | 58 | 69 | 537 | 320 | 186 | 1151 | 292 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 904 | 938 | 278 | 11 | 254 | 58 | 69 | 537 | 320 | 186 | 1151 | 292 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 904 | 938 | 278 | 11 | 254 | 58 | 69 | 537 | 320 | 186 | 1151 | 292 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 |
| Final Volume: | 994 | 938 | 278 | 12 | 254 | 58 | 76 | 537 | 320 | 205 | 1151 | 292 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 4500 | 1500 | 3000 | 3000 | 1500 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.33 | 0.31 | 0.19 | 0.00 | 0.08 | 0.04 | 0.03 | 0.12 | 0.21 | 0.07 | 0.38 | 0.19 |
| Crit Volume: | 497 | | | 127 | | | 38 | | | 576 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Future Plus Project
AM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #7 Zinfandel Dr/White Rock Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.811
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 120 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 20 | 2013 | 56 | 258 | 2376 | 804 | 394 | 155 | 16 | 148 | 326 | 289 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.72 | 0.28 | 2.00 | 1.59 | 1.41 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 4079 | 421 | 3000 | 2385 | 2115 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.01 | 0.45 | 0.04 | 0.09 | 0.53 | 0.54 | 0.13 | 0.04 | 0.04 | 0.05 | 0.14 | 0.14 |
| Crit Volume: | 10 | | | 804 | 197 | | 205 | | | | | |
| Crit Moves: | **** | | | **** | **** | | **** | | | **** | | |

Mather Specific Plan
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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Zinfandel Dr/International Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.034
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns representing traffic volumes for different movements and approaches.

Saturation Flow Module table with 11 columns representing saturation flow rates for different movements and approaches.

Capacity Analysis Module table with 11 columns representing capacity analysis metrics for different movements and approaches.

Mather Specific Plan
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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.559
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 11 columns representing traffic volumes for different movements and approaches.

Saturation Flow Module table with 11 columns representing saturation flow rates for different movements and approaches.

Capacity Analysis Module table with 11 columns representing capacity analysis metrics for different movements and approaches.

Mather Specific Plan
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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd

Cycle (sec): 180 Critical Vol./Cap. (X): 0.765
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 97 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 3 0 1

Volume Module:
Base Vol: 375 1689 298 74 1319 521 198 119 57 481 933 201
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 375 1689 298 74 1319 521 198 119 57 481 933 201
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 375 1689 298 74 1319 521 198 119 57 481 933 201
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 375 1689 298 74 1319 521 198 119 57 481 933 201
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 413 1689 298 81 1319 521 218 119 57 529 933 201

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
Final Sat.: 3000 4500 1500 3000 4500 1500 3000 4500 1500 3000 4500 1500

Capacity Analysis Module:
Vol/Sat: 0.14 0.38 0.20 0.03 0.29 0.35 0.07 0.03 0.04 0.18 0.21 0.13
Crit Volume: 206 521 109 311
Crit Moves: **** **** ****

Mather Specific Plan
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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.107
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 3 0 1

Volume Module:
Base Vol: 719 1825 217 239 960 517 279 534 335 161 1241 594
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 719 1825 217 239 960 517 279 534 335 161 1241 594
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 719 1825 217 239 960 517 279 534 335 161 1241 594
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 719 1825 217 239 960 517 279 534 335 161 1241 594
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 791 1825 217 263 960 517 307 534 335 177 1241 594

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 3.00 1.00
Final Sat.: 3000 4500 1500 3000 4500 1500 3000 3000 1500 3000 4500 1500

Capacity Analysis Module:
Vol/Sat: 0.26 0.41 0.14 0.09 0.21 0.34 0.10 0.18 0.22 0.06 0.28 0.40
Crit Volume: 395 517 153 594
Crit Moves: **** **** ****

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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Sunrise Blvd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.749
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 91 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 196 1491 60 185 857 381 77 394 92 27 858 482
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 196 1491 60 185 857 381 77 394 92 27 858 482
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 196 1491 60 185 857 381 77 394 92 27 858 482
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 196 1491 60 185 857 381 77 394 92 27 858 482
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 216 1491 60 204 857 381 85 394 92 30 858 482

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 4500 1500 3000 4500 1500 3000 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.07 0.33 0.04 0.07 0.19 0.25 0.03 0.13 0.06 0.01 0.29 0.32
Crit Volume: 497 102 42
Crit Moves: **** **

Mather Specific Plan
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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.963
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Ovl Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 11 1255 332 154 696 176 180 566 1 300 1266 151
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 11 1255 332 154 696 176 180 566 1 300 1266 151
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 11 1255 332 154 696 176 180 566 1 300 1266 151
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 11 1255 332 154 696 176 180 566 1 300 1266 151
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 12 1255 332 169 696 176 198 566 1 330 1266 151

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 4500 1500 3000 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.42 0.22 0.06 0.15 0.12 0.07 0.19 0.00 0.11 0.42 0.10
Crit Volume: 628 85 99 633
Crit Moves: **** **

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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #14 Grant Line Rd/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.772
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for volume and adjustment factors across four approaches.

Saturation Flow Module table with 12 columns for saturation flow factors across four approaches.

Capacity Analysis Module table with 12 columns for capacity analysis factors across four approaches.

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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #15 Grant Line Rd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.802
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 115 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for volume and adjustment factors across four approaches.

Saturation Flow Module table with 12 columns for saturation flow factors across four approaches.

Capacity Analysis Module table with 12 columns for capacity analysis factors across four approaches.

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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 Grant Line Rd/Jackson Rd(SR-16)
Cycle (sec): 100 Critical Vol./Cap. (X): 0.685
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 125 804 19 38 712 409 391 497 131 126 775 108
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 125 804 19 38 712 409 391 497 131 126 775 108
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 125 804 19 38 712 409 391 497 131 126 775 108
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 125 804 19 38 712 409 391 497 131 126 775 108
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
FinalVolume: 138 804 19 42 712 409 430 497 131 139 775 108
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.05 0.27 0.01 0.01 0.24 0.27 0.14 0.17 0.09 0.05 0.26 0.07
Crit Volume: 69 356 215 388
Crit Moves: **** **** **** ****

Mather Specific Plan
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AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 Bradshaw Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.498
Loss Time (sec): 0 Average Delay (sec/veh): 16.6
Optimal Cycle: 45 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 2 1 0 0 0 0 0 2
Volume Module:
Base Vol: 0 1171 1349 0 765 363 0 0 0 861 0 774
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1171 1349 0 765 363 0 0 0 861 0 774
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1171 0 0 765 0 0 0 0 861 0 774
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1171 0 0 765 0 0 0 0 861 0 774
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1171 0 0 765 0 0 0 0 861 0 774
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 1.00 1.00 1.00 0.92 1.00 0.75
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 2.00
Final Sat.: 0 5187 0 0 5187 0 0 0 0 3502 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.23 0.00 0.00 0.15 0.00 0.00 0.00 0.00 0.25 0.00 0.27
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.45 0.00 0.00 0.45 0.00 0.00 0.00 0.00 0.55 0.00 0.55
Volume/Cap: 0.00 0.50 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.45 0.00 0.50
Delay/Veh: 0.0 19.5 0.0 0.0 17.6 0.0 0.0 0.0 0.0 13.8 0.0 14.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 19.5 0.0 0.0 17.6 0.0 0.0 0.0 0.0 13.8 0.0 14.4
LOS by Move: A B A A B A A A A B A B
HCM2kAvgQ: 0 9 0 0 5 0 0 0 0 8 0 9

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.967
Loss Time (sec): 0 Average Delay (sec/veh): 32.3
Optimal Cycle: 180 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 3 0 1 2 0 0 0 2 0 0 0 0 0 0
Volume Module:
Base Vol: 0 2018 1041 0 1041 411 536 0 1642 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 2018 1041 0 1041 411 536 0 1642 0 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 2018 0 0 1041 0 536 0 1642 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2018 0 0 1041 0 536 0 1642 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 2018 0 0 1041 0 536 0 1642 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 1.00 1.00 0.91 1.00 0.92 1.00 0.75 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 0.00 3.00 1.00 2.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 5187 1900 0 5187 1900 3502 0 2842 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.39 0.00 0.00 0.20 0.00 0.15 0.00 0.58 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.40 0.00 0.00 0.40 0.00 0.60 0.00 0.60 0.00 0.00 0.00
Volume/Cap: 0.00 0.97 0.00 0.00 0.50 0.00 0.26 0.00 0.97 0.00 0.00 0.00
Delay/Veh: 0.0 42.0 0.0 0.0 22.5 0.0 9.6 0.0 33.9 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 42.0 0.0 0.0 22.5 0.0 9.6 0.0 33.9 0.0 0.0 0.0
LOS by Move: A D A A C A A A C A A A
HCM2kAvgQ: 0 28 0 0 9 0 4 0 34 0 0 0 0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
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AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.689
Loss Time (sec): 0 Average Delay (sec/veh): 19.4
Optimal Cycle: 73 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 3 0 1 0 0 0 0 0 1 0 1 0 0 0
Volume Module:
Base Vol: 0 891 620 0 899 262 0 0 0 1409 0 216
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 891 620 0 899 262 0 0 0 1409 0 216
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 891 620 0 899 262 0 0 0 1409 0 216
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 891 620 0 899 262 0 0 0 1409 0 216
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 891 620 0 899 262 0 0 0 1409 0 216
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 1.00 0.91 0.85 1.00 1.00 1.00 0.94 1.00 0.94
Lanes: 0.00 3.00 1.00 0.00 3.00 1.00 0.00 0.00 0.00 1.77 0.00 0.23
Final Sat.: 0 5187 1615 0 5187 1615 0 0 0 3149 0 419
Capacity Analysis Module:
Vol/Sat: 0.00 0.17 0.38 0.00 0.17 0.16 0.00 0.00 0.00 0.45 0.00 0.52
Crit Moves: **** ****
Green/Cycle: 0.00 0.25 1.00 0.00 0.25 0.25 0.00 0.00 0.00 0.75 0.00 0.75
Volume/Cap: 0.00 0.68 0.38 0.00 0.69 0.65 0.00 0.00 0.00 0.60 0.00 0.69
Delay/Veh: 0.0 35.3 0.2 0.0 35.5 37.0 0.0 0.0 0.0 6.1 0.0 7.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 35.3 0.2 0.0 35.5 37.0 0.0 0.0 0.0 6.1 0.0 7.4
LOS by Move: A D A A D D A A A A A A
HCM2kAvgQ: 0 10 1 0 10 8 0 0 0 12 0 15
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 1.043
Loss Time (sec): 0 Average Delay (sec/veh): 43.7
Optimal Cycle: 180 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 2 0 1 1 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 1297 836 0 2083 213 201 0 1434 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1297 836 0 2083 213 201 0 1434 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1297 836 0 2083 0 201 0 1434 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1297 836 0 2083 0 201 0 1434 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1297 836 0 2083 0 201 0 1434 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 1.00 0.95 1.00 0.86 1.00 0.86 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 0.00 2.00 1.00 1.12 0.00 1.88 0.00 0.00 0.00
Final Sat.: 0 5187 1615 0 3610 1900 1841 0 3077 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.25 0.52 0.00 0.58 0.00 0.11 0.00 0.47 0.00 0.00 0.00
Crit Moves: **** **** ****
Green/Cycle: 0.00 0.55 0.55 0.00 0.55 0.00 0.45 0.00 0.45 0.00 0.00 0.00
Volume/Cap: 0.00 0.45 0.94 0.00 1.04 0.00 0.24 0.00 1.04 0.00 0.00 0.00
Delay/Veh: 0.0 13.4 37.4 0.0 54.8 0.0 17.2 0.0 62.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 13.4 37.4 0.0 54.8 0.0 17.2 0.0 62.5 0.0 0.0 0.0
LOS by Move: A B D A D A B A E A A A
HCM2kAvgQ: 0 9 29 0 45 0 3 0 33 0 0 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.583
Loss Time (sec): 0 Average Delay (sec/veh): 13.6
Optimal Cycle: 55 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 2 0 1 0 0 0 0 0 2 0 0 0 1
Volume Module:
Base Vol: 0 2004 560 0 1288 321 0 0 0 689 0 282
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 2004 560 0 1288 321 0 0 0 689 0 282
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 2004 0 0 1288 0 0 0 0 689 0 282
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2004 0 0 1288 0 0 0 0 689 0 282
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 2004 0 0 1288 0 0 0 0 689 0 282
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.92 1.00 0.85
Lanes: 0.00 3.00 1.00 0.00 2.00 1.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 5187 1900 0 3610 1900 0 0 0 3502 0 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.39 0.00 0.00 0.36 0.00 0.00 0.00 0.00 0.20 0.00 0.17
Crit Moves: **** **** ****
Green/Cycle: 0.00 0.66 0.00 0.00 0.66 0.00 0.00 0.00 0.00 0.34 0.00 0.34
Volume/Cap: 0.00 0.58 0.00 0.00 0.54 0.00 0.00 0.00 0.00 0.58 0.00 0.52
Delay/Veh: 0.0 9.5 0.0 0.0 9.1 0.0 0.0 0.0 0.0 28.1 0.0 27.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.5 0.0 0.0 9.1 0.0 0.0 0.0 0.0 28.1 0.0 27.5
LOS by Move: A A A A A A A A A C A C
HCM2kAvgQ: 0 13 0 0 11 0 0 0 0 9 0 7

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Zinfandel Dr/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 1.137
Loss Time (sec): 0 Average Delay (sec/veh): 56.8
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns for volume and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 11 columns for capacity and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sunrise Blvd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.866
Loss Time (sec): 0 Average Delay (sec/veh): 17.5
Optimal Cycle: 171 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns for volume and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 11 columns for capacity and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.809
Loss Time (sec): 0 Average Delay (sec/veh): 18.2
Optimal Cycle: 119 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 0 0 3 0 1 3 0 0 0 2 0 0 0 0 0 0
Volume Module:
Base Vol: 0 2040 328 0 2679 453 1322 0 832 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 2040 328 0 2679 453 1322 0 832 0 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 2040 0 0 2679 0 1322 0 832 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2040 0 0 2679 0 1322 0 832 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2040 0 0 2679 0 1322 0 832 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 1.00 1.00 0.91 1.00 0.92 1.00 0.75 1.00 1.00 1.00
Lanes: 0.00 4.00 1.00 0.00 3.00 1.00 3.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 6916 1900 0 5187 1900 5253 0 2842 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.29 0.00 0.00 0.52 0.00 0.25 0.00 0.29 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.64 0.00 0.00 0.64 0.00 0.36 0.00 0.36 0.00 0.00 0.00
Volume/Cap: 0.00 0.46 0.00 0.00 0.81 0.00 0.70 0.00 0.81 0.00 0.00 0.00
Delay/Veh: 0.0 9.4 0.0 0.0 15.1 0.0 28.4 0.0 33.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.4 0.0 0.0 15.1 0.0 28.4 0.0 33.7 0.0 0.0 0.0
LOS by Move: A A A A B A C A C A A A
HCM2kAvgQ: 0 9 0 0 24 0 13 0 15 0 0 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Rancho Cordova Pkwy/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.607
Loss Time (sec): 0 Average Delay (sec/veh): 18.3
Optimal Cycle: 58 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 0 0 0 0 0 0 0 0 2 0 1 0 0
Volume Module:
Base Vol: 948 0 0 0 0 0 0 0 0 0 1179 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 948 0 0 0 0 0 0 0 0 0 1179 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 948 0 0 0 0 0 0 0 0 0 1179 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 948 0 0 0 0 0 0 0 0 0 1179 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 948 0 0 0 0 0 0 0 0 0 1179 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.92 1.00 1.00
Lanes: 2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 0.00
Final Sat.: 3502 0 0 0 0 0 0 0 0 0 3502 1900 0
Capacity Analysis Module:
Vol/Sat: 0.27 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.34 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.45 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.55 0.00 0.00
Volume/Cap: 0.61 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.61 0.00 0.00
Delay/Veh: 21.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.5 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 21.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.5 0.0 0.0
LOS by Move: C A A A A A A A A A B A A
HCM2kAvgQ: 12 0 0 0 0 0 0 0 0 0 13 0 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Rancho Cordova Pkwy/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.327
Loss Time (sec): 0 Average Delay (sec/veh): 0.0
Optimal Cycle: 34 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 2 0 0 0 0 0 0
Volume Module:
Base Vol: 0 948 1196 0 1179 0 0 0 346 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 948 1196 0 1179 0 0 0 346 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 0 948 0 0 1179 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 948 0 0 1179 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Volume: 0 948 0 0 1179 0 0 0 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 1.00 0.88 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 1.00 2.00 0.00 0.00 0.00
Final Sat.: 0 3610 1900 1900 3610 0 0 1900 3344 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.26 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A A A A A A A A A A A A
HCM2kAvgQ: 0 0 0 0 0 0 0 0 0 0 0 0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Vineyard Rd/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.961
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 2 0 1 1 0 2 0 1
Volume Module:
Base Vol: 216 1311 2 100 700 101 145 583 79 3 1173 394
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 216 1311 2 100 700 101 145 583 79 3 1173 394
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 216 1311 2 100 700 101 145 583 79 3 1173 394
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 216 1311 2 100 700 101 145 583 79 3 1173 394
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 216 1311 2 110 700 101 145 583 79 3 1173 394
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 3000 1500 3000 3000 1500 1500 3000 1500 1500 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.14 0.44 0.00 0.04 0.23 0.07 0.10 0.19 0.05 0.00 0.39 0.26
Crit Volume: 656 55 145 587
Crit Moves: ****

Mather Specific Plan
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Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #28 Vineyard Rd/Jackson Rd(SR-16)
Cycle (sec): 100 Critical Vol./Cap. (X): 0.802
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 115 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 3 0 1 1 0 3 0 1
Volume Module:
Base Vol: 584 1033 93 164 440 40 71 704 349 117 1576 351
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 584 1033 93 164 440 40 71 704 349 117 1576 351
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 584 1033 93 164 440 40 71 704 349 117 1576 351
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 584 1033 93 164 440 40 71 704 349 117 1576 351
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 642 1033 93 180 440 40 71 704 349 117 1576 351
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 1500 4500 1500 1500 4500 1500
Capacity Analysis Module:
Vol/Sat: 0.21 0.34 0.06 0.06 0.15 0.03 0.05 0.16 0.23 0.08 0.35 0.23
Crit Volume: 517 90 71 525
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #29 Excelsior Rd/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.629
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 61 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 1 1 0 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 314 449 0 0 118 141 132 528 26 0 1114 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 314 449 0 0 118 141 132 528 26 0 1114 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 314 449 0 0 118 141 132 528 26 0 1114 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 314 449 0 0 118 141 132 528 26 0 1114 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 345 449 0 0 118 141 145 528 26 0 1114 0
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 0.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 0 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.12 0.15 0.00 0.00 0.04 0.09 0.05 0.18 0.02 0.00 0.37 0.00
Crit Volume: 173 141 73 557
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #30 Excelsior Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.694
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns for volume and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 11 columns for capacity and 4 rows for Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #31 Zinfandel Rd/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.985
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 11 columns for volume and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 11 columns for capacity and 4 rows for Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #32 Sunrise Blvd/Chrysanthy Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.966
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 1
Volume Module:
Base Vol: 0 1952 128 444 947 0 0 0 0 271 0 603
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1952 128 444 947 0 0 0 0 271 0 603
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1952 128 444 947 0 0 0 0 271 0 603
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1952 128 444 947 0 0 0 0 271 0 603
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00
Final Volume: 0 1952 128 488 947 0 0 0 0 298 0 603
Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 4650 1550 3100 4650 0 0 0 0 3100 0 1550
Capacity Analysis Module:
Vol/Sat: 0.00 0.42 0.08 0.16 0.20 0.00 0.00 0.00 0.00 0.10 0.00 0.39
Crit Volume: 651 244 0
Crit Moves: **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #33 Rancho Cordova Pkwy/White Rock Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.922
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Ignore Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 3 0 1 1 0 3 0 1
Volume Module:
Base Vol: 284 1130 0 20 1117 1017 406 506 37 0 951 19
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 284 1130 0 20 1117 1017 406 506 37 0 951 19
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 284 1130 0 20 1117 0 406 506 0 0 951 19
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 284 1130 0 20 1117 0 406 506 0 0 951 19
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.10 1.00 0.00 1.00 1.00 1.00
Final Volume: 284 1130 0 20 1117 0 447 506 0 0 951 19
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 3.00 1.00 1.00 3.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 3000 4500 1500 1500 4500 1500
Capacity Analysis Module:
Vol/Sat: 0.19 0.38 0.00 0.01 0.37 0.00 0.15 0.11 0.00 0.00 0.21 0.01
Crit Volume: 284 559 223 317
Crit Moves: **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #34 Rancho Cordova Pkwy/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.535
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 1 1 0 1 0 1 1 0 2 0 3 0 1 2 0 3 0 1

Volume Module:
Base Vol: 691 830 80 84 358 0 0 397 269 100 729 205
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 691 830 80 84 358 0 0 397 269 100 729 205
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 691 830 80 84 358 0 0 397 269 100 729 205
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 691 830 80 84 358 0 0 397 269 100 729 205
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 760 830 80 84 358 0 0 397 269 110 729 205

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.82 0.18 1.00 2.00 0.00 2.00 3.00 1.00 2.00 3.00 1.00
Final Sat.: 3000 2736 264 1500 3000 0 3000 4500 1500 3000 4500 1500

Capacity Analysis Module:
Vol/Sat: 0.25 0.30 0.30 0.06 0.12 0.00 0.00 0.09 0.18 0.04 0.16 0.14
Crit Volume: 380 179 0 243
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #35 Rancho Cordova Pkwy/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.720
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 81 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 77 692 96 250 300 84 154 435 64 110 497 512
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 77 692 96 250 300 84 154 435 64 110 497 512
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 77 692 96 250 300 84 154 435 64 110 497 512
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 77 692 96 250 300 84 154 435 64 110 497 512
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 85 692 96 275 300 84 169 435 64 121 497 512

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.03 0.23 0.06 0.09 0.10 0.06 0.06 0.15 0.04 0.04 0.17 0.34
Crit Volume: 346 138 85 512
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #36 Rancho Cordova Pkwy/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.511
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 440 430 17 11 343 46 66 312 293 32 632 96
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 440 430 17 11 343 46 66 312 293 32 632 96
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 440 430 17 11 343 46 66 312 293 32 632 96
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 440 430 17 11 343 46 66 312 293 32 632 96
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 484 430 17 12 343 46 73 312 293 35 632 96

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.16 0.14 0.01 0.00 0.11 0.03 0.02 0.10 0.20 0.01 0.21 0.06
Crit Volume: 242 172 36 316
Crit Moves: **** **

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #37 Grant Line Rd/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.650
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 65 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 429 884 170 133 763 275 351 319 300 104 324 74
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 429 884 170 133 763 275 351 319 300 104 324 74
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 429 884 170 133 763 275 351 319 300 104 324 74
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 429 884 170 133 763 275 351 319 300 104 324 74
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
Final Volume: 472 884 170 146 763 275 386 319 300 114 324 74

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.16 0.29 0.11 0.05 0.25 0.18 0.13 0.11 0.20 0.04 0.11 0.05
Crit Volume: 236 382 300 57
Crit Moves: **** **

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #38 Grant Line Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.791
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 109 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows including Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan
Future Plus Project
AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #39 Rancho Cordova Pkwy/Grant Line Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.667
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows including Vol/Sat, Crit Volume, Crit Moves.

Mather Specific Plan
 Future Plus Project
 AM Peak Hour

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #40 Mather Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 3.262
 Loss Time (sec): 0 Average Delay (sec/veh): 607.8
 Optimal Cycle: 0 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |

Volume Module:
 Base Vol: 0 123 621 478 5 70 200 50 0 493 230 730
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 123 621 478 5 70 200 50 0 493 230 730
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 123 621 478 5 70 200 50 0 493 230 730
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 123 621 478 5 70 200 50 0 493 230 730
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 123 621 478 5 70 200 50 0 493 230 730

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 0.17 0.83 1.00 0.07 0.93 0.80 0.20 0.00 0.34 0.16 0.50
 Final Sat.: 0 75 380 395 30 422 311 78 0 151 71 224

Capacity Analysis Module:
 Vol/Sat: xxxx 1.64 1.64 1.21 0.17 0.17 0.64 0.64 xxxx 3.26 3.26 3.26
 Crit Moves: **** **** **** ****
 Delay/Veh: 0.0 316 316.0 144.1 12.2 12.2 27.6 27.6 0.0 1040 1040 1040
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 316 316.0 144.1 12.2 12.2 27.6 27.6 0.0 1040 1040 1040
 LOS by Move: * F F F B B D D * F F F
 ApproachDel: 316.0 126.2 27.6 1040.4
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 316.0 126.2 27.6 1040.4
 LOS by Appr: F F D F
 AllWayAvgQ: 38.6 38.6 38.6 14.5 0.2 0.2 1.7 1.7 1.7 127 127 127.4

 Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Scenario: Future PM Plus Project

Scenario Report
Future PM Plus Project

Command: Future PM Plus Project
Volume: Future PM Plus Project
Geometry: Future Plus Project
Impact Fee: Default Impact Fee
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default Route
Configuration: Future PM Plus Project

Mather Specific Plan
Future Plus Project
PM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | Future | | Change in |
|-------------------------------------|-------------|-----------|-------------|-----------|--------------|
| | Del/ LOS | V/ Veh | Del/ LOS | V/ Veh | |
| # 1 Bradshaw Rd/Old Placerville Rd | F xxxxx | 1.831 | F xxxxx | 1.831 | + 0.000 V/C |
| # 2 Bradshaw Rd/Kiefer Blvd | F xxxxx | 1.497 | F xxxxx | 1.497 | + 0.000 V/C |
| # 3 Bradshaw Rd/Jackson Rd(SR-16) | F xxxxx | 1.156 | F xxxxx | 1.156 | + 0.000 V/C |
| # 4 Routier Rd/Old Placerville Rd | F xxxxx | 1.869 | F xxxxx | 1.869 | + 0.000 V/C |
| # 5 Mather Field Rd/Rockingham Dr | F xxxxx | 1.213 | F xxxxx | 1.213 | + 0.000 V/C |
| # 6 Excelsior Rd/Jackson Rd(SR-16) | E xxxxx | 0.977 | E xxxxx | 0.977 | + 0.000 V/C |
| # 7 Zinfandel Dr/White Rock Rd | F xxxxx | 1.439 | F xxxxx | 1.439 | + 0.000 V/C |
| # 8 Zinfandel Dr/International Rd | F xxxxx | 1.061 | F xxxxx | 1.061 | + 0.000 V/C |
| # 9 Eagles Nest Rd/Jackson Rd(SR-1 | C xxxxx | 0.708 | C xxxxx | 0.708 | + 0.000 V/C |
| # 10 Sunrise Blvd/White Rock Rd | C xxxxx | 0.783 | C xxxxx | 0.783 | + 0.000 V/C |
| # 11 Sunrise Blvd/Douglas Rd | F xxxxx | 1.146 | F xxxxx | 1.146 | + 0.000 V/C |
| # 12 Sunrise Blvd/Kiefer Blvd | C xxxxx | 0.781 | C xxxxx | 0.781 | + 0.000 V/C |
| # 13 Sunrise Blvd/Jackson Rd(SR-16) | D xxxxx | 0.836 | D xxxxx | 0.836 | + 0.000 V/C |
| # 14 Grant Line Rd/White Rock Rd | E xxxxx | 0.918 | E xxxxx | 0.918 | + 0.000 V/C |
| # 15 Grant Line Rd/Douglas Rd | E xxxxx | 0.915 | E xxxxx | 0.915 | + 0.000 V/C |
| # 16 Grant Line Rd/Jackson Rd(SR-16 | B xxxxx | 0.623 | B xxxxx | 0.623 | + 0.000 V/C |
| # 17 Bradshaw Rd/US-50 WB Ramps | B 17.7 | 0.605 | B 17.7 | 0.605 | + 0.000 D/V |
| # 18 Bradshaw Rd/US-50 EB Ramps | C 27.3 | 0.894 | C 27.3 | 0.894 | + 0.000 D/V |
| # 19 Mather Field Rd/US-50 WB Ramps | B 14.2 | 0.964 | B 14.2 | 0.964 | + 0.000 D/V |
| # 20 Mather Field Rd/US-50 EB Ramps | E 58.0 | 1.265 | E 58.0 | 1.265 | + 0.000 D/V |
| # 21 Zinfandel Dr/US-50 WB Ramps | B 17.0 | 0.694 | B 17.0 | 0.694 | + 0.000 D/V |
| # 22 Zinfandel Dr/US-50 EB Ramps | F 144.5 | 1.409 | F 144.5 | 1.409 | + 0.000 D/V |
| # 23 Sunrise Blvd/US-50 WB Ramps | C 20.2 | 0.956 | C 20.2 | 0.956 | + 0.000 D/V |

Mather Specific Plan
Future Plus Project
PM Peak Hour

| Intersection | Base | | Future | | Change in |
|-------------------------------------|-----------------|-------------|-----------------|-------------|--------------|
| | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 24 Sunrise Blvd/US-50 EB Ramps | B | 17.7 0.679 | B | 17.7 0.679 | + 0.000 D/V |
| # 25 Rancho Cordova Pkwy/US-50 WB R | C | 21.9 0.753 | C | 21.9 0.753 | + 0.000 D/V |
| # 26 Rancho Cordova Pkwy/US-50 EB R | A | 0.1 0.365 | A | 0.1 0.365 | + 0.000 D/V |
| # 27 Vineyard Rd/Kiefer Blvd | E | xxxxx 0.919 | E | xxxxx 0.919 | + 0.000 V/C |
| # 28 Vineyard Rd/Jackson Rd(SR-16) | E | xxxxx 0.937 | E | xxxxx 0.937 | + 0.000 V/C |
| # 29 Excelsior Rd/Kiefer Blvd | A | xxxxx 0.582 | A | xxxxx 0.582 | + 0.000 V/C |
| # 30 Excelsior Rd/Kiefer Blvd | F | xxxxx 1.937 | F | xxxxx 1.937 | + 0.000 V/C |
| # 31 Zinfandel Rd/Chrysanthy Blvd | E | xxxxx 0.996 | E | xxxxx 0.996 | + 0.000 V/C |
| # 32 Sunrise Blvd/Chrysanthy Blvd | C | xxxxx 0.799 | C | xxxxx 0.799 | + 0.000 V/C |
| # 33 Rancho Cordova Pkwy/White Rock | F | xxxxx 1.016 | F | xxxxx 1.016 | + 0.000 V/C |
| # 34 Rancho Cordova Pkwy/Douglas Rd | C | xxxxx 0.789 | C | xxxxx 0.789 | + 0.000 V/C |
| # 35 Rancho Cordova Pkwy/Chrysanthy | B | xxxxx 0.618 | B | xxxxx 0.618 | + 0.000 V/C |
| # 36 Rancho Cordova Pkwy/Kiefer Blv | A | xxxxx 0.568 | A | xxxxx 0.568 | + 0.000 V/C |
| # 37 Grant Line Rd/Chrysanthy Blvd | C | xxxxx 0.724 | C | xxxxx 0.724 | + 0.000 V/C |
| # 38 Grant Line Rd/Kiefer Blvd | D | xxxxx 0.865 | D | xxxxx 0.865 | + 0.000 V/C |
| # 39 Rancho Cordova Pkwy/Grant Line | A | xxxxx 0.508 | A | xxxxx 0.508 | + 0.000 V/C |
| # 40 Mather Blvd/Douglas Rd | F | 723.7 3.576 | F | 723.7 3.576 | + 0.000 V/C |

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #1 Bradshaw Rd/Old Placerville Rd

| | | | |
|------------------|-----|--------------------------|--------|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 1.831 |
| Loss Time (sec): | 0 | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 180 | Level Of Service: | F |

| | | | | |
|-----------|-------------|-------------|------------|------------|
| Approach: | North Bound | South Bound | East Bound | West Bound |
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |

-----|-----|-----|-----|

| | | | | |
|-------------|-------------|-------------|-------------|-------------|
| Control: | Protected | Protected | Split Phase | Split Phase |
| Rights: | Include | Include | Include | Include |
| Min. Green: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Y+R: | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 |
| Lanes: | 1 0 3 0 1 | 2 0 2 1 0 | 1 0 0 1 0 | 2 0 1 0 1 |

-----|-----|-----|-----|

Volume Module:

| | | | | |
|---------------|----------------|----------------|----------------|---------------------|
| Base Vol: | 40 1407 1032 | 786 2091 | 57 55 33 | 20 1152 152 1267 |
| Growth Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 |
| Initial Bse: | 40 1407 1032 | 786 2091 | 57 55 33 | 20 1152 152 1267 |
| User Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 |
| PHP Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 |
| PHP Volume: | 40 1407 1032 | 786 2091 | 57 55 33 | 20 1152 152 1267 |
| Reduced Vol: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 0 |
| Reduced Vol: | 40 1407 1032 | 786 2091 | 57 55 33 | 20 1152 152 1267 |
| PCE Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 |
| MLF Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 |
| Final Volume: | 40 1407 1032 | 786 2091 | 57 55 33 | 20 1152 152 1267 |

-----|-----|-----|-----|

Saturation Flow Module:

| | | | | |
|-------------|----------------|----------------|----------------|---------------------|
| Sat/Lane: | 1500 1500 1500 | 1500 1500 1500 | 1500 1500 1500 | 1500 1500 1500 |
| Adjustment: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 |
| Lanes: | 1.00 3.00 1.00 | 2.00 2.92 0.08 | 1.00 0.62 0.38 | 2.00 1.00 1.00 |
| Final Sat.: | 1500 4500 1500 | 3000 4381 119 | 1500 934 566 | 3000 1500 1500 |

-----|-----|-----|-----|

Capacity Analysis Module:

| | | | | |
|--------------|----------------|----------------|----------------|----------------|
| Vol/Sat: | 0.03 0.31 0.69 | 0.26 0.48 0.48 | 0.04 0.04 0.04 | 0.38 0.10 0.84 |
| Crit Volume: | 1032 393 | 55 | | 1267 |
| Crit Moves: | **** | **** | **** | **** |

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #2 Bradshaw Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.497
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 1 0 1 0 1 1 0

Volume Module:
Base Vol: 28 1445 194 361 2585 511 341 1188 63 440 873 457
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 28 1445 194 361 2585 511 341 1188 63 440 873 457
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 28 1445 194 361 2585 511 341 1188 63 440 873 457
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 28 1445 194 361 2585 511 341 1188 63 440 873 457
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 28 1445 194 361 2585 511 341 1188 63 440 873 457

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.76 0.24 1.00 2.50 0.50 1.00 1.90 0.10 1.00 1.31 0.69
Final Sat.: 1500 2645 355 1500 3757 743 1500 2849 151 1500 1969 1031

Capacity Analysis Module:
Vol/Sat: 0.02 0.55 0.55 0.24 0.69 0.69 0.23 0.42 0.42 0.29 0.44 0.44
Crit Volume: 820 361 626 440
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Bradshaw Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 1.156
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Ovl Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 3 0 1

Volume Module:
Base Vol: 326 1139 395 383 2250 319 148 1884 359 386 1563 216
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 326 1139 395 383 2250 319 148 1884 359 386 1563 216
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 326 1139 395 383 2250 319 148 1884 359 386 1563 216
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 326 1139 395 383 2250 319 148 1884 359 386 1563 216
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 326 1139 395 383 2250 319 148 1884 359 386 1563 216

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
Final Sat.: 3000 4500 1500 3000 4500 1500 3000 4500 1500 3000 4500 1500

Capacity Analysis Module:
Vol/Sat: 0.11 0.25 0.26 0.13 0.50 0.21 0.05 0.42 0.24 0.13 0.35 0.14
Crit Volume: 163 750 628 193
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Routier Rd/Old Placerville Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.869
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 2 0 0 0 0 2 0 1

Volume Module:
Base Vol: 0 0 0 334 0 792 665 2374 0 0 2879 504
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 334 0 792 665 2374 0 0 2879 504
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 0 0 0 334 0 792 665 2374 0 0 2879 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 334 0 792 665 2374 0 0 2879 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Volume: 0 0 0 334 0 792 665 2374 0 0 2879 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3100 0 1550 1550 3100 0 0 3100 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.11 0.00 0.51 0.43 0.77 0.00 0.00 0.93 0.00
Crit Volume: 0 792 665 1440
Crit Moves: **** **

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Mather Field Rd/Rockingham Dr

Cycle (sec): 100 Critical Vol./Cap. (X): 1.213
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 1 0 1 0 3 0 1 1 1 0 0 1 0 1 0 0 1

Volume Module:
Base Vol: 68 2602 26 136 1457 738 1202 60 99 18 159 125
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 68 2602 26 136 1457 738 1202 60 99 18 159 125
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 68 2602 26 136 1457 0 1202 60 99 18 159 125
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 68 2602 26 136 1457 0 1202 60 99 18 159 125
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 68 2602 26 136 1457 0 1202 60 99 18 159 125

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.97 0.03 1.00 3.00 1.00 1.90 0.10 1.00 0.10 0.90 1.00
Final Sat.: 1500 4455 45 1500 4500 1500 2857 143 1500 153 1347 1500

Capacity Analysis Module:
Vol/Sat: 0.05 0.58 0.58 0.09 0.32 0.00 0.42 0.42 0.07 0.12 0.12 0.08
Crit Volume: 876 136 631 177
Crit Moves: **** **

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Excelsior Rd/Jackson Rd(SR-16)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.977
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 0 | 1 | 2 | 0 | 2 | 0 | 1 | 2 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 479 | 384 | 200 | 85 | 1090 | 109 | 174 | 1116 | 772 | 296 | 740 | 14 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 479 | 384 | 200 | 85 | 1090 | 109 | 174 | 1116 | 772 | 296 | 740 | 14 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 479 | 384 | 200 | 85 | 1090 | 109 | 174 | 1116 | 772 | 296 | 740 | 14 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 479 | 384 | 200 | 85 | 1090 | 109 | 174 | 1116 | 772 | 296 | 740 | 14 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 479 | 384 | 200 | 85 | 1090 | 109 | 174 | 1116 | 772 | 296 | 740 | 14 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 4500 | 1500 | 3000 | 3000 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.16 | 0.13 | 0.13 | 0.03 | 0.36 | 0.07 | 0.06 | 0.25 | 0.51 | 0.10 | 0.25 | 0.01 |
| Crit Volume: | 0 | | | 545 | | | 772 | 148 | | | | |
| Crit Moves: | **** | | | **** | | | **** | **** | | | | |

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Zinfandel Dr/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.439
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 38 | 2741 | 103 | 489 | 2136 | 437 | 798 | 301 | 14 | 133 | 290 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 38 | 2741 | 103 | 489 | 2136 | 437 | 798 | 301 | 14 | 133 | 290 | 1 |
| User Adj: | 1.00 | 1.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 38 | 4112 | 103 | 489 | 2136 | 437 | 798 | 301 | 14 | 133 | 290 | 1 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 38 | 4112 | 103 | 489 | 2136 | 437 | 798 | 301 | 14 | 133 | 290 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 38 | 4112 | 103 | 489 | 2136 | 437 | 798 | 301 | 14 | 133 | 290 | 1 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.87 | 0.13 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 4300 | 200 | 3000 | 3000 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.01 | 0.91 | 0.07 | 0.16 | 0.47 | 0.29 | 0.27 | 0.07 | 0.07 | 0.04 | 0.10 | 0.00 |
| Crit Volume: | 1371 | | | 245 | | | 399 | | | 145 | | |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Zinfandel Dr/International Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 1.061
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 3 0 1
Volume Module:
Base Vol: 726 1139 108 413 1458 361 615 1379 1003 205 1220 537
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 726 1139 108 413 1458 361 615 1379 1003 205 1220 537
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 726 1139 108 413 1458 361 615 1379 1003 205 1220 537
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 726 1139 108 413 1458 361 615 1379 1003 205 1220 537
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 726 1139 108 413 1458 361 615 1379 1003 205 1220 537
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
Final Sat.: 3000 4500 1500 3000 4500 1500 3000 4500 1500 3000 4500 1500
Capacity Analysis Module:
Vol/Sat: 0.24 0.25 0.07 0.14 0.32 0.24 0.21 0.31 0.67 0.07 0.27 0.36
Crit Volume: 0 486 1003 103
Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Eagles Nest Rd/Jackson Rd(SR-16)
Cycle (sec): 100 Critical Vol./Cap. (X): 0.708
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1
Volume Module:
Base Vol: 0 228 5 132 315 10 102 1361 4 21 915 32
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 228 5 132 315 10 102 1361 4 21 915 32
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 228 5 132 315 10 102 1361 4 21 915 32
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 228 5 132 315 10 102 1361 4 21 915 32
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 228 5 132 315 10 102 1361 4 21 915 32
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 1500 1500 1500 1500 1500 3000 1500 1500 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.00 0.15 0.00 0.09 0.21 0.01 0.07 0.45 0.00 0.01 0.31 0.02
Crit Volume: 228 132 681 21
Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 Sunrise Blvd/White Rock Rd

Cycle (sec): 180 Critical Vol./Cap. (X): 0.783
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 105 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns representing different traffic movements and 10 rows of adjustment factors (Base Vol, Growth Adj, Initial Bse, etc.).

Saturation Flow Module table with 10 columns representing different traffic movements and 10 rows of adjustment factors (Sat/Lane, Adjustment, Lanes, etc.).

Capacity Analysis Module table with 10 columns representing different traffic movements and 10 rows of adjustment factors (Vol/Sat, Crit Volume, Crit Moves).

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 Sunrise Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.146
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns representing different traffic movements and 10 rows of adjustment factors (Base Vol, Growth Adj, Initial Bse, etc.).

Saturation Flow Module table with 10 columns representing different traffic movements and 10 rows of adjustment factors (Sat/Lane, Adjustment, Lanes, etc.).

Capacity Analysis Module table with 10 columns representing different traffic movements and 10 rows of adjustment factors (Vol/Sat, Crit Volume, Crit Moves).

Mather Specific Plan
Future Plus Project
PM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #12 Sunrise Blvd/Kiefer Blvd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.781
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 104 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 136 | 983 | 19 | 470 | 1796 | 150 | 425 | 839 | 212 | 6 | 563 | 292 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 136 | 983 | 19 | 470 | 1796 | 150 | 425 | 839 | 212 | 6 | 563 | 292 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 136 | 983 | 19 | 470 | 1796 | 150 | 425 | 839 | 212 | 6 | 563 | 292 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 136 | 983 | 19 | 470 | 1796 | 150 | 425 | 839 | 212 | 6 | 563 | 292 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 136 | 983 | 19 | 470 | 1796 | 150 | 425 | 839 | 212 | 6 | 563 | 292 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.05 | 0.22 | 0.01 | 0.16 | 0.40 | 0.10 | 0.14 | 0.28 | 0.14 | 0.00 | 0.19 | 0.19 |
| Crit Volume: | 68 | 599 | 213 | 599 | 213 | 292 | 213 | 599 | 292 | 292 | 213 | 599 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Future Plus Project
PM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #13 Sunrise Blvd/Jackson Rd(SR-16)

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.836
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 139 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 4 | 735 | 272 | 228 | 1519 | 208 | 225 | 1152 | 13 | 339 | 714 | 178 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 735 | 272 | 228 | 1519 | 208 | 225 | 1152 | 13 | 339 | 714 | 178 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 735 | 272 | 228 | 1519 | 208 | 225 | 1152 | 13 | 339 | 714 | 178 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 735 | 272 | 228 | 1519 | 208 | 225 | 1152 | 13 | 339 | 714 | 178 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 4 | 735 | 272 | 228 | 1519 | 208 | 225 | 1152 | 13 | 339 | 714 | 178 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 3000 | 1500 | 3000 | 4500 | 1500 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.00 | 0.25 | 0.18 | 0.08 | 0.34 | 0.14 | 0.08 | 0.38 | 0.01 | 0.11 | 0.24 | 0.12 |
| Crit Volume: | 2 | 506 | 576 | 506 | 576 | 170 | 576 | 506 | 170 | 170 | 506 | 576 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Future Plus Project
PM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #14 Grant Line Rd/White Rock Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.918
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Ovl Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 2 0 0 0 1 0 0 0 0 0

 Volume Module:
 Base Vol: 1 1428 0 0 1668 691 1176 0 13 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 1 1428 0 0 1668 691 1176 0 13 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 1 1428 0 0 1668 691 1176 0 13 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 1 1428 0 0 1668 691 1176 0 13 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 1 1428 0 0 1668 691 1176 0 13 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 1550 3100 0 0 3100 1550 3100 0 1550 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.46 0.00 0.00 0.54 0.45 0.38 0.00 0.01 0.00 0.00 0.00
 Crit Volume: 1 834 588 0
 Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #15 Grant Line Rd/Douglas Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.915
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 0 0 0 2 0 1 2 0 0 0 1 0 0 0 0 0

 Volume Module:
 Base Vol: 545 1142 0 0 1318 415 233 0 760 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 545 1142 0 0 1318 415 233 0 760 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 545 1142 0 0 1318 415 233 0 760 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 545 1142 0 0 1318 415 233 0 760 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 545 1142 0 0 1318 415 233 0 760 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.00 0.00 0.00 2.00 1.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 3100 3100 0 0 3100 1550 3100 0 1550 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.18 0.37 0.00 0.00 0.43 0.27 0.08 0.00 0.49 0.00 0.00 0.00
 Crit Volume: 0 659 760 0
 Crit Moves: **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 Grant Line Rd/Jackson Rd(SR-16)
Cycle (sec): 100 Critical Vol./Cap. (X): 0.623
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 61 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 137 674 42 49 726 412 345 962 133 45 550 35
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 137 674 42 49 726 412 345 962 133 45 550 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 137 674 42 49 726 412 345 962 133 45 550 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 137 674 42 49 726 412 345 962 133 45 550 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 137 674 42 49 726 412 345 962 133 45 550 35
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.05 0.22 0.03 0.02 0.24 0.27 0.12 0.32 0.09 0.02 0.18 0.02
Crit Volume: 69 363 481 23
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 Bradshaw Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.605
Loss Time (sec): 0 Average Delay (sec/veh): 17.7
Optimal Cycle: 58 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 2 1 0 0 0 0 0 2
Volume Module:
Base Vol: 0 666 1536 0 1315 1316 0 0 0 1230 0 591
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 666 1536 0 1315 1316 0 0 0 1230 0 591
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 666 0 0 1315 0 0 0 0 1230 0 591
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 666 0 0 1315 0 0 0 0 1230 0 591
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 666 0 0 1315 0 0 0 0 1230 0 591
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 0.91 0.91 1.00 1.00 1.00 0.92 1.00 0.75
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 2.00
Final Sat.: 0 5187 0 0 5187 0 0 0 0 3502 0 2842
Capacity Analysis Module:
Vol/Sat: 0.00 0.13 0.00 0.00 0.25 0.00 0.00 0.00 0.00 0.35 0.00 0.21
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.42 0.00 0.00 0.42 0.00 0.00 0.00 0.00 0.58 0.00 0.58
Volume/Cap: 0.00 0.31 0.00 0.00 0.60 0.00 0.00 0.00 0.00 0.60 0.00 0.36
Delay/Veh: 0.0 19.4 0.0 0.0 23.1 0.0 0.0 0.0 0.0 14.1 0.0 11.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 19.4 0.0 0.0 23.1 0.0 0.0 0.0 0.0 14.1 0.0 11.2
LOS by Move: A B A A C A A A B A B
HCM2kAvgQ: 0 5 0 0 12 0 0 0 0 13 0 5

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Bradshaw Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.894
Loss Time (sec): 0 Average Delay (sec/veh): 27.3
Optimal Cycle: 180 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 3 0 1 2 0 0 0 2 0 0 0 0 0 0
Volume Module:
Base Vol: 0 1904 897 0 2028 499 434 0 1429 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1904 897 0 2028 499 434 0 1429 0 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1904 0 0 2028 0 434 0 1429 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1904 0 0 2028 0 434 0 1429 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1904 0 0 2028 0 434 0 1429 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 1.00 1.00 0.91 1.00 0.92 1.00 0.75 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 0.00 3.00 1.00 2.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 5187 1900 0 5187 1900 3502 0 2842 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.37 0.00 0.00 0.39 0.00 0.12 0.00 0.50 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.44 0.00 0.00 0.44 0.00 0.56 0.00 0.56 0.00 0.00 0.00
Volume/Cap: 0.00 0.84 0.00 0.00 0.89 0.00 0.22 0.00 0.89 0.00 0.00 0.00
Delay/Veh: 0.0 27.9 0.0 0.0 31.0 0.0 11.0 0.0 26.1 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 27.9 0.0 0.0 31.0 0.0 11.0 0.0 26.1 0.0 0.0 0.0
LOS by Move: A C A A C A B A C A A A
HCM2kAvgQ: 0 21 0 0 25 0 3 0 26 0 0 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Mather Field Rd/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.964
Loss Time (sec): 0 Average Delay (sec/veh): 14.2
Optimal Cycle: 180 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 3 0 1 0 0 0 0 0 1 0 1 0 0 0
Volume Module:
Base Vol: 0 1447 1403 0 922 197 0 0 0 875 0 271
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1447 1403 0 922 197 0 0 0 875 0 271
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1447 1403 0 922 197 0 0 0 875 0 271
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1447 1403 0 922 197 0 0 0 875 0 271
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1447 1403 0 922 197 0 0 0 875 0 271
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 1.00 0.91 0.85 1.00 1.00 1.00 0.93 1.00 0.93
Lanes: 0.00 3.00 1.00 0.00 3.00 1.00 0.00 0.00 0.00 1.62 0.00 0.38
Final Sat.: 0 5187 1615 0 5187 1615 0 0 0 2856 0 675
Capacity Analysis Module:
Vol/Sat: 0.00 0.28 0.87 0.00 0.18 0.12 0.00 0.00 0.00 0.31 0.00 0.40
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.58 1.00 0.00 0.58 0.58 0.00 0.00 0.00 0.42 0.00 0.42
Volume/Cap: 0.00 0.48 0.87 0.00 0.30 0.21 0.00 0.00 0.00 0.74 0.00 0.96
Delay/Veh: 0.0 12.1 5.3 0.0 10.6 10.0 0.0 0.0 0.0 26.4 0.0 46.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 12.1 5.3 0.0 10.6 10.0 0.0 0.0 0.0 26.4 0.0 46.4
LOS by Move: A B A A B A A A A C A D
HCM2kAvgQ: 0 9 5 0 5 3 0 0 0 15 0 27

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Mather Field Rd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 1.265
Loss Time (sec): 0 Average Delay (sec/veh): 58.0
Optimal Cycle: 180 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 2 0 1 1 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 2340 1577 0 1537 247 506 0 786 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 2340 1577 0 1537 247 506 0 786 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 2340 1577 0 1537 0 506 0 786 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2340 1577 0 1537 0 506 0 786 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 2340 1577 0 1537 0 506 0 786 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 1.00 0.95 1.00 0.89 1.00 0.89 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 0.00 2.00 1.00 1.39 0.00 1.61 0.00 0.00 0.00
Final Sat.: 0 5187 1615 0 3610 1900 2358 0 2725 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.45 0.98 0.00 0.43 0.00 0.21 0.00 0.29 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.77 0.77 0.00 0.77 0.00 0.23 0.00 0.23 0.00 0.00 0.00
Volume/Cap: 0.00 0.58 1.26 0.00 0.55 0.00 0.94 0.00 1.26 0.00 0.00 0.00
Delay/Veh: 0.0 5.0 137.1 0.0 4.8 0.0 50.7 0.0 165.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 5.0 137.1 0.0 4.8 0.0 50.7 0.0 165.7 0.0 0.0 0.0
LOS by Move: A A F A A A D A F A A A
HCM2kAvgQ: 0 11 89 0 10 0 15 0 30 0 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Zinfandel Dr/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.694
Loss Time (sec): 0 Average Delay (sec/veh): 17.0
Optimal Cycle: 75 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 0 0 2 0 1 0 0 0 0 0 1
Volume Module:
Base Vol: 0 2099 1535 0 1499 938 0 0 0 709 0 451
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 2099 1535 0 1499 938 0 0 0 709 0 451
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 2099 0 0 1499 0 0 0 0 709 0 451
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2099 0 0 1499 0 0 0 0 709 0 451
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 2099 0 0 1499 0 0 0 0 709 0 451
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.92 1.00 0.85
Lanes: 0.00 3.00 1.00 0.00 2.00 1.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 5187 1900 0 3610 1900 0 0 0 3502 0 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.40 0.00 0.00 0.42 0.00 0.00 0.00 0.00 0.20 0.00 0.28
Crit Moves: **** ****
Green/Cycle: 0.00 0.60 0.00 0.00 0.60 0.00 0.00 0.00 0.00 0.40 0.00 0.40
Volume/Cap: 0.00 0.68 0.00 0.00 0.69 0.00 0.00 0.00 0.00 0.50 0.00 0.69
Delay/Veh: 0.0 14.2 0.0 0.0 14.8 0.0 0.0 0.0 0.0 22.7 0.0 28.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 14.2 0.0 0.0 14.8 0.0 0.0 0.0 0.0 22.7 0.0 28.1
LOS by Move: A B A A B A A A A C A C
HCM2kAvgQ: 0 16 0 0 17 0 0 0 0 9 0 12

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Zinfandel Dr/US-50 EB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 1.409
Loss Time (sec): 0 Average Delay (sec/veh): 144.5
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 13 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sunrise Blvd/US-50 WB Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.956
Loss Time (sec): 0 Average Delay (sec/veh): 20.2
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with 10 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 13 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Sunrise Blvd/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.679
Loss Time (sec): 0 Average Delay (sec/veh): 17.7
Optimal Cycle: 71 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 0 0 3 0 1 3 0 0 0 2 0 0 0 0 0 0
Volume Module:
Base Vol: 0 2623 407 0 1410 501 1572 0 564 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 2623 407 0 1410 501 1572 0 564 0 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 2623 0 0 1410 0 1572 0 564 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2623 0 0 1410 0 1572 0 564 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 2623 0 0 1410 0 1572 0 564 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 1.00 1.00 0.91 1.00 0.92 1.00 0.75 1.00 1.00 1.00
Lanes: 0.00 4.00 1.00 0.00 3.00 1.00 3.00 0.00 2.00 0.00 0.00 0.00
Final Sat.: 0 6916 1900 0 5187 1900 5253 0 2842 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.38 0.00 0.00 0.27 0.00 0.30 0.00 0.20 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.56 0.00 0.00 0.56 0.00 0.44 0.00 0.44 0.00 0.00 0.00
Volume/Cap: 0.00 0.68 0.00 0.00 0.49 0.00 0.68 0.00 0.45 0.00 0.00 0.00
Delay/Veh: 0.0 16.2 0.0 0.0 13.5 0.0 23.1 0.0 19.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 16.2 0.0 0.0 13.5 0.0 23.1 0.0 19.7 0.0 0.0 0.0
LOS by Move: A B A A B A C A B A A A
HCM2kAvgQ: 0 16 0 0 10 0 14 0 7 0 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Rancho Cordova Pkwy/US-50 WB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.753
Loss Time (sec): 0 Average Delay (sec/veh): 21.9
Optimal Cycle: 92 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 0 0 0 0 0 0 0 0 2 0 1 0 0
Volume Module:
Base Vol: 1317 0 0 0 0 0 0 0 0 0 1319 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1317 0 0 0 0 0 0 0 0 0 1319 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1317 0 0 0 0 0 0 0 0 0 1319 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1317 0 0 0 0 0 0 0 0 0 1319 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 1317 0 0 0 0 0 0 0 0 0 1319 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.92 1.00 1.00
Lanes: 2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 0.00
Final Sat.: 3502 0 0 0 0 0 0 0 0 0 3502 1900 0
Capacity Analysis Module:
Vol/Sat: 0.38 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.38 0.00 0.00
Crit Moves: **** ****
Green/Cycle: 0.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.50 0.00 0.00
Volume/Cap: 0.75 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.75 0.00 0.00
Delay/Veh: 22.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.9 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 22.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.9 0.0 0.0
LOS by Move: C A A A A A A A A A C A A
HCM2kAvgQ: 18 0 0 0 0 0 0 0 0 18 0 0

Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Rancho Cordova Pkwy/US-50 EB Ramps
Cycle (sec): 100 Critical Vol./Cap. (X): 0.365
Loss Time (sec): 0 Average Delay (sec/veh): 0.1
Optimal Cycle: 36 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ignore Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 2 0 0 0 0 0
Volume Module:
Base Vol: 0 1317 1183 0 1319 0 0 0 841 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1317 1183 0 1319 0 0 0 841 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 0 1317 0 0 1319 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1317 0 0 1319 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Volume: 0 1317 0 0 1319 0 0 0 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 1.00 1.00 0.95 1.00 1.00 1.00 0.88 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 1.00 2.00 0.00 0.00 0.00
Final Sat.: 0 3610 1900 1900 3610 0 0 1900 3344 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.36 0.00 0.00 0.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.36 0.00 0.00 0.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 0.1 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.1 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A A A A A A A A A A A A
HCM2kAvgQ: 0 1 0 0 1 0 0 0 0 0 0 0
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Vineyard Rd/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.919
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 2 0 1 1 0 2 0 1
Volume Module:
Base Vol: 124 1121 2 452 1298 197 134 1183 269 1 819 158
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 124 1121 2 452 1298 197 134 1183 269 1 819 158
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 124 1121 2 452 1298 197 134 1183 269 1 819 158
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 124 1121 2 452 1298 197 134 1183 269 1 819 158
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 124 1121 2 452 1298 197 134 1183 269 1 819 158
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 3000 1500 3000 3000 1500 1500 3000 1500 1500 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.08 0.37 0.00 0.15 0.43 0.13 0.09 0.39 0.18 0.00 0.27 0.11
Crit Volume: 561 226 592 1
Crit Moves: ****
Note: Queue reported is the number of cars per lane.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #28 Vineyard Rd/Jackson Rd(SR-16)
Cycle (sec): 100 Critical Vol./Cap. (X): 0.937
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 3 0 1 1 0 3 0 1
Volume Module:
Base Vol: 459 714 119 312 1070 98 64 1583 536 113 909 318
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 459 714 119 312 1070 98 64 1583 536 113 909 318
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 459 714 119 312 1070 98 64 1583 536 113 909 318
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 459 714 119 312 1070 98 64 1583 536 113 909 318
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 459 714 119 312 1070 98 64 1583 536 113 909 318
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 1500 4500 1500 1500 4500 1500
Capacity Analysis Module:
Vol/Sat: 0.15 0.24 0.08 0.10 0.36 0.07 0.04 0.35 0.36 0.08 0.20 0.21
Crit Volume: 230 535 528 113
Crit Moves: ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #29 Excelsior Rd/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.582
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 1 1 0 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 48 250 0 0 604 194 157 1095 382 0 736 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 48 250 0 0 604 194 157 1095 382 0 736 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 48 250 0 0 604 194 157 1095 382 0 736 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 48 250 0 0 604 194 157 1095 382 0 736 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 48 250 0 0 604 194 157 1095 382 0 736 0
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 0.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 0 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.02 0.08 0.00 0.00 0.20 0.13 0.05 0.37 0.25 0.00 0.25 0.00
Crit Volume: 24 302 547 0
Crit Moves: ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #30 Excelsior Rd/Kiefer Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.937
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns for volume and 10 columns for adjustment factors (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #31 Zinfandel Rd/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.996
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 10 columns for volume and 10 columns for adjustment factors (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Saturation Flow Module table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns for Vol/Sat, Crit Volume, and Crit Moves.

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #32 Sunrise Blvd/Chrysanthy Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.799
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 114 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 0 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 1250 | 298 | 513 | 2180 | 0 | 0 | 0 | 0 | 197 | 0 | 512 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1250 | 298 | 513 | 2180 | 0 | 0 | 0 | 0 | 197 | 0 | 512 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1250 | 298 | 513 | 2180 | 0 | 0 | 0 | 0 | 197 | 0 | 512 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1250 | 298 | 513 | 2180 | 0 | 0 | 0 | 0 | 197 | 0 | 512 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 1250 | 298 | 513 | 2180 | 0 | 0 | 0 | 0 | 197 | 0 | 512 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 3.00 | 1.00 | 2.00 | 3.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 4650 | 1550 | 3100 | 4650 | 0 | 0 | 0 | 0 | 3100 | 0 | 1550 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.27 | 0.19 | 0.17 | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.33 |
| Crit Volume: | 0 | | | 727 | | 0 | | | | 512 | | |
| Crit Moves: | **** | | | **** | | **** | | | | **** | | **** |

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #33 Rancho Cordova Pkwy/White Rock Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 1.016
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Ignore | | | Ignore | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 2 | 0 | 3 | 0 | 1 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 67 | 1179 | 0 | 28 | 1306 | 669 | 963 | 1407 | 162 | 0 | 969 | 23 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 67 | 1179 | 0 | 28 | 1306 | 669 | 963 | 1407 | 162 | 0 | 969 | 23 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 67 | 1179 | 0 | 28 | 1306 | 0 | 963 | 1407 | 0 | 0 | 969 | 23 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 67 | 1179 | 0 | 28 | 1306 | 0 | 963 | 1407 | 0 | 0 | 969 | 23 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 67 | 1179 | 0 | 28 | 1306 | 0 | 963 | 1407 | 0 | 0 | 969 | 23 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1500 | 3000 | 1500 | 1500 | 3000 | 1500 | 3000 | 4500 | 1500 | 1500 | 4500 | 1500 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.04 | 0.39 | 0.00 | 0.02 | 0.44 | 0.00 | 0.32 | 0.31 | 0.00 | 0.00 | 0.22 | 0.02 |
| Crit Volume: | 67 | | | 653 | | 482 | | | | 323 | | |
| Crit Moves: | **** | | | **** | | **** | | | | **** | | **** |

Mather Specific Plan
Future Plus Project
PM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #34 Rancho Cordova Pkwy/Douglas Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.789
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 108 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 507 | 488 | 124 | 167 | 978 | 0 | 0 | 843 | 661 | 68 | 583 | 111 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 507 | 488 | 124 | 167 | 978 | 0 | 0 | 843 | 661 | 68 | 583 | 111 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 507 | 488 | 124 | 167 | 978 | 0 | 0 | 843 | 661 | 68 | 583 | 111 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 507 | 488 | 124 | 167 | 978 | 0 | 0 | 843 | 661 | 68 | 583 | 111 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 507 | 488 | 124 | 167 | 978 | 0 | 0 | 843 | 661 | 68 | 583 | 111 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 1.59 | 0.41 | 1.00 | 2.00 | 0.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3000 | 2392 | 608 | 1500 | 3000 | 0 | 3000 | 4500 | 1500 | 3000 | 4500 | 1500 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.17 | 0.20 | 0.20 | 0.11 | 0.33 | 0.00 | 0.00 | 0.19 | 0.44 | 0.02 | 0.13 | 0.07 |
| Crit Volume: | 0 | 489 | 489 | 489 | 489 | 0 | 661 | 34 | 34 | 661 | 34 | 34 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Future Plus Project
PM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #35 Rancho Cordova Pkwy/Chrysanthy Blvd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.618
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 2 | 0 | 1 | 2 | 0 | 2 | 0 | 1 | 2 | 0 |

| Volume Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol: | 69 | 454 | 104 | 472 | 767 | 212 | 123 | 519 | 88 | 102 | 489 | 403 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 69 | 454 | 104 | 472 | 767 | 212 | 123 | 519 | 88 | 102 | 489 | 403 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 69 | 454 | 104 | 472 | 767 | 212 | 123 | 519 | 88 | 102 | 489 | 403 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 69 | 454 | 104 | 472 | 767 | 212 | 123 | 519 | 88 | 102 | 489 | 403 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 69 | 454 | 104 | 472 | 767 | 212 | 123 | 519 | 88 | 102 | 489 | 403 |

| Saturation Flow Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane: | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 | 3000 | 3000 | 1500 |

| Capacity Analysis Module: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat: | 0.02 | 0.15 | 0.07 | 0.16 | 0.26 | 0.14 | 0.04 | 0.17 | 0.06 | 0.03 | 0.16 | 0.27 |
| Crit Volume: | 227 | 236 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Crit Moves: | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #36 Rancho Cordova Pkwy/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.568
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 53 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 376 382 45 119 485 73 58 746 412 18 409 23
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 376 382 45 119 485 73 58 746 412 18 409 23
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 376 382 45 119 485 73 58 746 412 18 409 23
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 376 382 45 119 485 73 58 746 412 18 409 23
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 376 382 45 119 485 73 58 746 412 18 409 23
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.13 0.13 0.03 0.04 0.16 0.05 0.02 0.25 0.27 0.01 0.14 0.02
Crit Volume: 188 242 412 9
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #37 Grant Line Rd/Chrysanthy Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.724
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 83 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1
Volume Module:
Base Vol: 356 645 145 102 640 293 328 476 482 211 479 130
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 356 645 145 102 640 293 328 476 482 211 479 130
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 356 645 145 102 640 293 328 476 482 211 479 130
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 356 645 145 102 640 293 328 476 482 211 479 130
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 356 645 145 102 640 293 328 476 482 211 479 130
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 3000 3000 1500 3000 3000 1500
Capacity Analysis Module:
Vol/Sat: 0.12 0.22 0.10 0.03 0.21 0.20 0.11 0.16 0.32 0.07 0.16 0.09
Crit Volume: 178 320 482 106
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #38 Grant Line Rd/Kiefer Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.865
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 168 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 2 0 1 1 0 1 0 1
Volume Module:
Base Vol: 301 1140 30 147 1300 280 358 250 316 30 103 80
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 301 1140 30 147 1300 280 358 250 316 30 103 80
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 301 1140 30 147 1300 280 358 250 316 30 103 80
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 301 1140 30 147 1300 280 358 250 316 30 103 80
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 301 1140 30 147 1300 280 358 250 316 30 103 80
Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 1.00 1.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 3000 3000 1500 1500 1500 1500
Capacity Analysis Module:
Vol/Sat: 0.20 0.38 0.02 0.10 0.43 0.19 0.12 0.08 0.21 0.02 0.07 0.05
Crit Volume: 301 650 316 30
Crit Moves: **** **** **** ****

Mather Specific Plan
Future Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #39 Rancho Cordova Pkwy/Grant Line Rd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.508
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 0 0 0 2 0 1 2 0 0 0 1 0 0 0 0 0
Volume Module:
Base Vol: 7 1049 0 0 1208 439 352 0 5 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 7 1049 0 0 1208 439 352 0 5 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 7 1049 0 0 1208 439 352 0 5 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 7 1049 0 0 1208 439 352 0 5 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 7 1049 0 0 1208 439 352 0 5 0 0 0
Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 2.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 1550 3100 0 0 3100 1550 3100 0 1550 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.34 0.00 0.00 0.39 0.28 0.11 0.00 0.00 0.00 0.00 0.00
Crit Volume: 7 604 176 0
Crit Moves: **** **** ****

Mather Specific Plan
 Future Plus Project
 PM Peak Hour

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #40 Mather Blvd/Douglas Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 3.576
 Loss Time (sec): 0 Average Delay (sec/veh): 723.7
 Optimal Cycle: 0 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | |
|-------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | | |
| Rights: | Include | | | Include | | | Include | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 60 | 661 | 918 | 124 | 65 | 200 | 50 | 0 | 901 | 260 | 394 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 60 | 661 | 918 | 124 | 65 | 200 | 50 | 0 | 901 | 260 | 394 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 60 | 661 | 918 | 124 | 65 | 200 | 50 | 0 | 901 | 260 | 394 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 60 | 661 | 918 | 124 | 65 | 200 | 50 | 0 | 901 | 260 | 394 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 60 | 661 | 918 | 124 | 65 | 200 | 50 | 0 | 901 | 260 | 394 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.08 | 0.92 | 1.00 | 0.66 | 0.34 | 0.80 | 0.20 | 0.00 | 0.58 | 0.17 | 0.25 |
| Final Sat.: | 0 | 38 | 420 | 395 | 282 | 148 | 310 | 78 | 0 | 252 | 73 | 110 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|-------|------|-------|-------|------|------|------|------|------|--------|------|-------|
| Vol/Sat: | xxxx | 1.58 | 1.58 | 2.32 | 0.44 | 0.44 | 0.64 | 0.64 | xxxx | 3.58 | 3.58 | 3.58 |
| Crit Moves: | **** | | | **** | | | **** | | **** | | | |
| Delay/Veh: | 0.0 | 290 | 289.7 | 623.6 | 17.5 | 17.5 | 27.6 | 27.6 | 0.0 | 1182 | 1182 | 1182 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 290 | 289.7 | 623.6 | 17.5 | 17.5 | 27.6 | 27.6 | 0.0 | 1182 | 1182 | 1182 |
| LOS by Move: | * | F | F | F | C | C | D | D | * | F | F | F |
| ApproachDel: | 289.7 | | | 520.1 | | | 27.6 | | | 1181.9 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 289.7 | | | 520.1 | | | 27.6 | | | 1181.9 | | |
| LOS by Appr: | F | | | F | | | D | | | F | | |
| AllWayAvgQ: | 35.5 | 35.5 | 35.5 | 67.1 | 0.8 | 0.8 | 1.7 | 1.7 | 1.7 | 141 | 141 | 141.4 |

Note: Queue reported is the number of cars per lane.

Appendix F

Green Building and Development Measures

APPENDIX F

Green Building and Development Measures

To comply with **Mitigation Measure 4.4.1-8a**, each increment of new development within the project site requiring a discretionary approval from the County (e.g., proposed tentative subdivision map, conditional use permit), would demonstrate that GHG emissions from construction and operation would be reduced by 30 percent from business-as-usual 2006 emissions levels.

For each increment of new development, the project proponent would submit to the County a proposed mitigation plan that lists the measures selected to be implemented as part of the development and/or consideration of previously implemented measures, including analysis demonstrating the associated reduction in GHG emissions. The list would reflect the then-current state of the regulation of GHG emissions and climate change, which is expected to continue to evolve under the mandate of AB 32. The County would review, in consultation with the SMAQMD, the mitigation report for the applicable increment of development and approve the report (with modifications, if considered necessary and feasible) prior to granting any requested discretionary approval for that increment of development. In determining what sort of measures should appropriately be imposed to attain the overall, project-wide 30 percent emissions reduction requirement, the County would consider the following factors:

- The extent to which rates of GHG emissions generated by motor vehicles traveling to, from, and within the project site are projected to decrease over time as a result of regulations, policies, and/or plans that have already been adopted or may be adopted in the future by ARB or other public agency pursuant to AB 32, or by the EPA;
- The extent to which mobile-source GHG emissions can also be reduced through measures that result in trip reductions and reductions in trip length;
- The extent to which GHG emissions resulting from power generation by SMUD (that would serve the project site) are projected to decrease pursuant to existing and any future regulations, policies, and/or plans adopted by the federal and state governments to reduce GHG emissions from power generation;
- The extent to which replacement of CCR Title 24 with the California Green Building Standards Code or other similar requirements would result in new buildings being more energy efficient and consequently more GHG efficient;
- The extent to which any stationary sources of GHG emissions that would be associated with a proposed land use are already subject to regulations, policies, and/or plans that reduce GHG emissions, particularly any future regulations that would have the indirect effect of reducing GHG emissions;
- The extent to which the feasibility of existing GHG reduction technologies may change in the future, and to which innovation in GHG reduction technologies would continue, affecting cost-benefit analyses that determine economic feasibility; and

- Whether the total costs of proposed mitigation for GHG emissions, together with other mitigation measures, required for the proposed development, are so great that a reasonably prudent property owner would not proceed with the development in the face of such costs.

The project proponent would consider the following options to meet the 30 percent reduction requirement, though this list is not intended to be exhaustive of GHG reduction strategies.

Energy Efficiency

- Include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems).
- Site buildings to take advantage of shade and prevailing winds and design landscaping and sun screens to reduce energy use.
- Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Use daylight as an integral part of lighting systems in all buildings.
- Install Energy Star compliant highly reflective roofing materials.
- Install light-colored “cool” pavements, and strategically located shade trees along all bicycle and pedestrian routes.
- Incorporate “green building” points into the design and construction of all projects for which “green building” points are available. Such points may be achieved through conformity with the checklists identified by New Home Construction Green Building Guidelines available at www.builditgreen.org (which were developed to apply to residential construction, but include measures that are also pertinent to commercial buildings).
- Incorporate methods to reduce heat gain of the non-roof impervious site landscape (including roads, sidewalks, courtyards, parking lots, and driveways) into the construction and design of all new projects. Methods include shading (within five years of occupancy), paving materials with a Solar Reflective Index (SRI) of at least 29, open grid pavement system (pavement that is less than 50% impervious and contains vegetation in the open cells), parking spaces under cover (any roof used to shade or cover parking should have an SRI of at least 29),
- Obtain Leadership in Energy and Environmental Design (LEED) certification, such as silver or gold, which can allow for further reductions in energy consumption and GHG emissions.

Water Conservation and Efficiency

- With the exception of ornamental shade trees, use water-efficient landscapes with native, drought-resistant species in all public areas.
- Install infrastructure to use recycled water for landscape irrigation.
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Design buildings and lots to be water-efficient. Install water-efficient fixtures and appliances (e.g., ultra low-flow toilets, no flow urinals).

- Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces). Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces unless required to mitigate health and safety concerns.

Solid Waste Measures

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste at buildings.
- Provide adequate recycling containers in public areas, including parks, school grounds, and pedestrian zones.
- Provide education about reducing waste and available recycling services.

Transportation and Motor Vehicles

- Promote ride-sharing programs at employment centers (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, or designating adequate passenger loading and unloading zones and waiting areas for ride share vehicles.)
- Provide necessary facilities and infrastructure in all land use types to encourage the use of low or zero emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).
- Allow for prioritized parking within new commercial and retail areas for electric vehicles, hybrid vehicles, and alternative fuel vehicles.
- Incorporate bicycle lanes, routes, and intersection improvements into street systems.
- For commercial land uses, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience.
- Create Class II bicycle lanes and walking paths directed to the location of schools, parks, and other destination points.
- Construct public transit amenities (bus shelters, bicycle lockers/racks, etc.) near transit stops.
- Provide secure bicycle storage at public parking facilities.
- Integrate the project site with the surrounding development and circulation pattern by creating street and pedestrian/bicycle access throughout the project site to enable trips without depending exclusively on major roads, secondary roads, or the automobile.
- Design roadways to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming features.

Appendix G

VELB Mitigation

APPENDIX G

Valley Elderberry Longhorn Beetle Mitigation Measures.

These guidelines comply with habitat creation and mitigation measures described in the U.S. Fish and Wildlife Services' (USFWS) Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS, 1999) and the Programmatic Formal Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office (USFWS, 1996).

Avoid and Protect Habitat Whenever Possible: If suitable habitat for the beetle occurs on the project site or within close proximity where beetles will be affected by the project, these areas must be designated as avoidance areas and must be protected from disturbance during the construction and operation of the project. When possible, projects should be designed such that avoidance areas are connected with adjacent habitat to prevent fragmentation and isolation of beetle populations. Any beetle habitat that cannot be avoided as described below should be considered impacted and appropriate minimization measures should be proposed as described below.

Avoidance: Establishment and Maintenance of a Buffer Zone: Complete avoidance (i.e., no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. Firebreaks may not be included in the buffer zone. In buffer areas, construction-related disturbance should be minimized, and any damaged area should be promptly restored following construction. The USFWS must be consulted before any disturbances within the buffer area are considered. In addition, the USFWS must be provided with a map identifying the avoidance area and written details describing avoidance measures.

Protective Measures

1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by USFWS, provide a minimum setback of at least 20 feet from the drip line of each elderberry plant.
2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.
3. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution,

finer, and imprisonment.” The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.

4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.

Restoration and Maintenance: Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants.

Buffer areas must continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding, and trash removal are usually appropriate.

No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.

The applicant must provide a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed.

Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five (5) feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment).

Transplant Elderberry Plants That Cannot Be Avoided: Elderberry plants must be transplanted if they cannot be avoided by the proposed project. All elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level must be transplanted to a conservation area. At the discretion of the USFWS, a plant that is unlikely to survive transplantation because of poor condition or location, or a plant that would be extremely difficult to move because of access problems, may be exempted from transplantation. In cases where transplantation is not possible, the minimization ratios may be increased to offset the additional habitat loss.

Trimming of elderberry plants (e.g., pruning along roadways, bike paths, or trails) with one or more stems 1.0 inch or greater in diameter at ground level, may result in take of beetles. Therefore, trimming is subject to appropriate minimization measures.

1. **Monitor.** A qualified biologist (monitor) must be on-site for the duration of the transplanting of the elderberry plants to insure that no unauthorized take of the valley elderberry longhorn beetle occurs. If unauthorized take occurs, the monitor must have the authority to stop work until corrective measures have been completed. The monitor must immediately report any unauthorized take of the beetle or its habitat to the USFWS.
2. **Timing.** Transplant elderberry plants when the plants are dormant, approximately November through the first two weeks in February, after they have lost their leaves. Transplanting during the non-growing season will reduce shock to the plant and increase transplantation success.
3. **Transplanting Procedure.**

- a. Cut the plant back 3 to 6 feet from the ground or to 50 percent of its height (whichever is taller) by removing branches and stems above this height. The trunk and all stems measuring 1.0 inch or greater in diameter at ground level should be replanted. Any leaves remaining on the plant should be removed.
- b. Excavate a hole of adequate size to receive the transplant.
- c. Excavate the plant using a Vemeer spade, backhoe, front end loader, or other suitable equipment, taking as much of the root ball as possible, and replant immediately at the conservation area. Move the plant only by the root ball. If the plant is to be moved and transplanted off site, secure the root ball with wire and wrap it with burlap. Dampen the burlap with water, as necessary, to keep the root ball wet. Do not let the roots dry out. Care should be taken to ensure that the soil is not dislodged from around the roots of the transplant. If the site receiving the transplant does not have adequate soil moisture, pre-wet the soil a day or two before transplantation.
- d. The planting area must be at least 1,800 square feet for each elderberry transplant. The root ball should be planted so that its top is level with the existing ground. Compact the soil sufficiently so that settlement does not occur. As many as five (5) additional elderberry plantings (cuttings or seedlings) and up to five (5) associated native species plantings may also be planted within the 1,800 square foot area with the transplant. The transplant and each new planting should have its own watering basin measuring at least three (3) feet in diameter. Watering basins should have a continuous berm measuring approximately eight (8) inches wide at the base and six (6) inches high.
- e. Saturate the soil with water. Do not use fertilizers or other supplements or paint the tips of stems with pruning substances, as the effects of these compounds on the beetle are unknown.
- f. Monitor to ascertain if additional watering is necessary. If the soil is sandy and well-drained, plants may need to be watered weekly or twice monthly. If the soil is clayey and poorly-drained, it may not be necessary to water after the initial saturation. However, most transplants require watering through the first summer. A drip watering system and timer is ideal. However, in situations where this is not possible, a water truck or other apparatus may be used.

Plant Additional Seedlings or Cuttings: Each elderberry stem measuring 1.0 inch or greater in diameter at ground level that is adversely affected (i.e., transplanted or destroyed) must be replaced, in the conservation area, with elderberry seedlings or cuttings at a ratio ranging from 1:1 to 8:1 (new plantings to affected stems). Stock of either seedlings or cuttings should be obtained from local sources. Cuttings may be obtained from the plants to be transplanted if the project site is in the vicinity of the conservation area. If the USFWS determines that the elderberry plants on the proposed project site are unsuitable candidates for transplanting, they may allow the applicant to plant seedlings or cuttings at higher than the stated ratios for each elderberry plant that cannot be transplanted.

Plant Associated Native Species: Studies have found that the beetle is more abundant in dense native plant communities with a mature overstory and a mixed understory. Therefore, a mix of native plants associated with the elderberry plants at the project site or similar sites will be planted at ratios ranging from 1:1 to 2:1 (native tree/plant species to each elderberry seedling or cutting). These native plantings must be monitored with the same survival criteria used for the elderberry seedlings. Stock of saplings, cuttings, and seedlings should be obtained from local sources. If the parent stock is obtained from a distance greater than

one mile from the conservation area, approval by the USFWS of the native plant donor sites must be obtained prior to initiation of the revegetation work. Planting or seeding the conservation area with native herbaceous species is encouraged. Establishing native grasses and forbs may discourage unwanted non-native species from becoming established or persisting at the conservation area. Only stock from local sources should be used.