PUBLIC REVIEW DRAFT

DIXON RANCH RESIDENTIAL PROJECT ENVIRONMENTAL IMPACT REPORT TECHNICAL APPENDICES-VOLUME ONE: APPENDICES A & B

STATE CLEARINGHOUSE # 2012062023

LSA

November 2014

PUBLIC REVIEW DRAFT

DIXON RANCH RESIDENTIAL PROJECT ENVIRONMENTAL IMPACT REPORT

TECHNICAL APPENDICES-VOLUME ONE:

APPENDICES A & B

STATE CLEARINGHOUSE # 2012062023

Submitted to:

County of El Dorado Community Development Agency Planning Services Division 2850 Fairlane Court Placerville, California 95667

Prepared by:

LSA Associates, Inc. 2215 Fifth Street Berkeley, California 94710 510.540.7331

LSA

November 2014

APPENDIX A

NOTICE OF PREPARATION AND SCOPING COMMENT LETTERS



County of El Dorado Notice of Preparation Dixon Ranch Residential Project

Date:

December 14, 2012

To:

Public Agencies, Interested Organizations, and Individuals

From:

Pierre Rivas, Principal Planner, El Dorado County

Subject:

Notice of Preparation of an Environmental Impact Report for the Dixon

Ranch Residential Project (File Nos. A11-0006, Z11-0008, PD11-0006, & TM11-

1505)

This Notice of Preparation (NOP) is intended to initiate the environmental review process in accordance with the California Environmental Quality Act for a land development project in El Dorado County. El Dorado County will be the Lead Agency and will prepare the Environmental Impact Report (EIR) for the project described below. A new project, which includes development of 605 units, has been proposed for the project site, and with this NOP a new CEQA review process has been initiated. Therefore, this NOP supersedes the NOP (SCH #2012062023) sent out on June 6, 2012 for the former 709 unit Dixon Ranch Residential Project.

The project description, location, and probable environmental effects of the Dixon Ranch Residential Project are described in the attached materials. The County of El Dorado is soliciting comments from public agencies, private organizations, and individuals regarding the scope and content of the environmental documentation. Note that other public agencies may need to use the EIR when considering permitting or other approvals. Because of time limits mandated by State law, your response to this NOP must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please note that your written response to this NOP must be addressed to Pierre Rivas, Principal Planner, at the address shown below by 5 p.m., January 17, 2013 to be included as a comment during the scoping period.

1

Mr. Pierre Rivas, Principal Planner

El Dorado County
Development Services Department
2850 Fairlane Court Placerville, CA 95667
Email: pierre.rivas@edcgov.us

County of El Dorado December 14, 2012

Dixon Ranch Residential Project EIR Notice of Preparation **Project Location:** The Dixon Ranch project site encompasses approximately 280 acres and is located north of US Highway 50 in the unincorporated community of El Dorado Hills in western El Dorado County. The property is located south of Green Valley Road, near its intersection with Malcolm Dixon Road. Access to the project is proposed from Green Valley Road. Existing or approved adjacent subdivisions include Green Springs Ranch to the east and southeast, Serrano to the southwest, and Highland View to the west. A regional location map is shown in Figure 1 and a conceptual site plan is shown in Figure 2.

Project Description: The Dixon Ranch Residential Project would subdivide 280 acres to include 605 single-family detached residential units. Approximately 160 of these units would be age restricted to older adults. The project includes 84 acres (30 percent) of open space, including both active and passive parks, trails, landscaped lots, and native open spaces. The project includes on-site and off-site infrastructure to serve the development. Construction of a clubhouse for the age-restricted units is also proposed. Build-out will likely occur over many years, but ultimately will be dictated by market demands.

Required project approvals would include: a General Plan Amendment (File No. A11-0006); Zone Change (File No. Z11-0008); Planned Development (File No. PD11-0006); Tentative Map (File No. TM11-1505); annexation into the El Dorado Irrigation District; annexation into the El Dorado Hills Community Service District; and annexation into the El Dorado Hills Water Company (El Dorado Hills Fire Department).

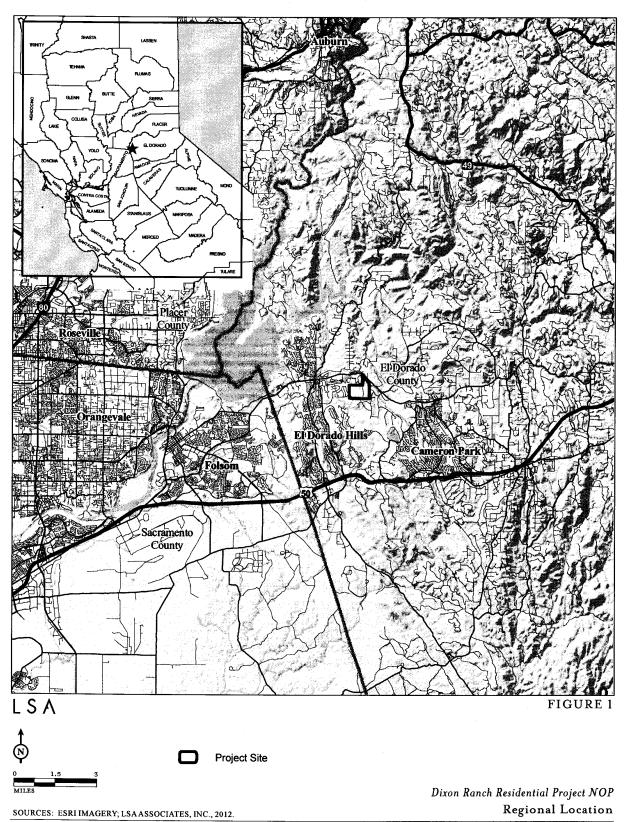
General Plan Amendment Description: The project is currently located entirely within the General Plan Community Region (urban limit line) of El Dorado Hills and is designated as Low Density Residential (LDR) land use, with the exception of 1.5 acres at the southeast corner of the property that is designated as Open Space (OS) and associated with the existing SMUD power transmission corridor. LDR allows for a maximum density of 1dwelling unit per 5 acres. The proposed project is applying for a change in the land use designations on the site to High Density Residential (HDR) allowing for a density range of 1 to 5 units per acre; Medium Density Residential (MDR) allowing for a maximum density of 1 dwelling unit per acre; and Open Space (OS).

Potential Environmental Effects: Based on a preliminary environmental analysis of the project, discussion with the County staff and the community, the following topics will be evaluated in the EIR.

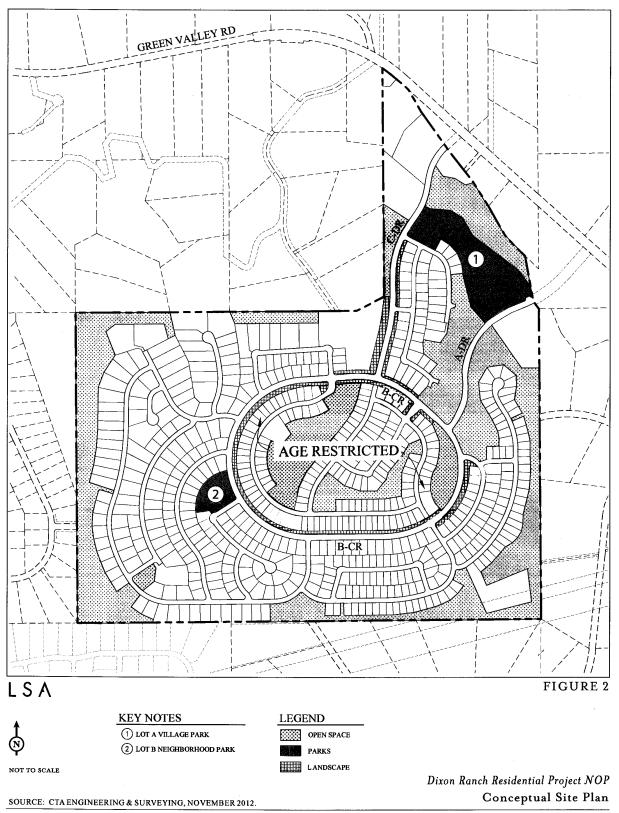
- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials

- Hydrology and Water Quality
- Land Use and Agricultural Resources
- Noise
- Population and Housing
- Public Services
- Transportation/Traffic
- Utilities and Infrastructure

Alternatives: The *CEQA Guidelines* require the analysis of a range of reasonable alternatives to the project, or to the location of the project that would feasibly attain most of the project's basic objectives and avoid or substantially lessen any of the significant effects of the project. As required by CEQA, the EIR will evaluate a No Project alternative, which will assume development of the site under the currently adopted General Plan and zoning designation. Other alternatives will be identified and evaluated within the Draft EIR.



I:\EDC1101 Dixon Ranch\figures\NOP\Fig_1.ai (11/19/12)



I:\EDC1101 Dixon Ranch\figures\NOP\Fig_2.ai (12/13/12)



STATE OF CALIFORNIA Governor's Office of Planning and Research State Clearinghouse and Planning Unit



Notice of Preparation

December 19, 2012

To: Revie

Reviewing Agencies

Re:

Dixon Ranch Residential Project

SCH# 2012062023

Attached for your review and comment is the Notice of Preparation (NOP) for the Dixon Ranch Residential Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Pierre Rivas El Dorado County 2850 Fairlane Court Placerville, CA 95667

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely

Scott Morgan

Director, State Clearinghouse

Attachments cc: Lead Agency

Document Details Report State Clearinghouse Data Base

SCH# 2012062023

Project Title Dixon Ranch Residential Project

Lead Agency El Dorado County

> Type NOP Notice of Preparation

Description

The Dixon Ranch Residential Project would subdivide 280 acres to include 605 single family detached residential units. Approximately 160 of these units would be age restricted to older adults. The project includes 84 acres (30 percent) of open space, including both active and passive parks, trails, landscaped lots, and native open spaces. The project includes on-site and off-site infrastructure to serve the development. Construction of a clubhouse for the age-restricted units is also proposed. Build-out will likely occur over many years, but ultimately will be dictated by market demands. Required project approvals would include: a General Plan Amendment; Zone Change; Planned Development; Tentative Map; annexation into the El Dorado Irrigation District; annexation into the El Dorado Hills Community Service District; and annexation into the El Dorado Hills Water Company (El Dorado Hills Fire Department).

Lead Agency Contact

Name Pierre Rivas

Agency El Dorado County Phone (530) 621-5841

email

Address 2850 Fairlane Court

> City Placerville

State CA **Zip** 95667

Fax

Project Location

County El Dorado

City

Region

Cross Streets Green Valley Road/Malcolm Dixon Road

Lat / Long

38° 42' 18.8568" N / 121° 2' 42.4746" W

Parcel No.

Township

Range

Section

Base

Proximity to:

Highways

Airports

Railways

Waterways

Folsom Lake

Schools

7+

Land Use

PLU: Undeveloped/Grazing

Z: Exclusive Agricultural and Estate Residential Five-Acre GPUD: Low Density Residential (LDR) and Open Space (OS).

Project Issues

Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Forest Land/Fire Hazard; Geologic/Seismic; Noise; Public Services; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Cumulative Effects

Reviewing Agencies

Resources Agency; Department of Conservation; Cal Fire; Department of Parks and Recreation; Department of Fish and Game, Region 2; Office of Emergency Management Agency, California; Native American Heritage Commission; State Lands Commission; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 3 S; Regional Water Quality Control Bd., Region 5 (Sacramento)



El Dorado Hills Fire Department

December 27, 2012

Mr. Pierre Rivas, Principal Planner El Dorado County Planning Department 2850 Fair Lane Placerville, CA 95667

Re: El Dorado Hills Fire Department's Comments on the Notice of Preparation of an Environmental Impact Report for Dixon Ranch Residential Project (File Nos. A11-0006, Z11-0008, PD11-0006 & TM11-1505)

Dear Mr. Rivas:

As a Responsible Agency, the El Dorado Hills Fire Department has reviewed the above referenced project and submits the following comments:

- 1. An additional 605 units will create a public safety threat for <u>evacuation</u> in the case of a wildfire, hazardous materials call, or other emergency.
- 2. The additional 605 units will create an increase in the need for emergency medical and fire protection services which will require immediate, smooth and safe access into and out of the area.
- 3. The two main access points illustrated on the map do not meet the requirements of the California Fire Code Appendix D104.3 (adopted into Ordinance by the El Dorado Hills Fire Department). This section states:

Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

4. There is a need for the Lima Way access point to be a public roadway, without any gate, so that the public and emergency responders have immediate, smooth and safe access into and out of the area.

If you have any additional questions, please do not hesitate to contact me at 916-933-6623.

Sincerely,

EL DORADO HILLS FIRE DEPARTMENT

Michael Lilienthal

Battalion Chief/Fire Marshal

1050 Wilson Blvd. • El Dorado Hills, California 95762 • Tel (916) 933-6623 • Fax (916) 933-5983



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

2840 Mount Danaher Road Camino, CA 95709 (530) 644-2345 Website: <u>www.fire.ca.gov</u>



January 7, 2013

To: El Dorado County Development Services Department

Pierre Rivas

2580 Fairlane Court Placerville, CA 95667

Re: Dixon Ranch Residential Project

SCH# 2012062023

The project falls with a **Moderate Fire Hazard Severity Zone** as determined by CAL FIRE. The following conditions shall apply to the project:

Item #1- At least two connections (two points of access/egress) shall be provided. (I recommend following the standards required by the California Fire Code Appendix D104.3. This can be accomplished by opening up Lima Way to through traffic).

Item #2- Roads shall be a minimum road width of 20 feet per the California Fire Code unless increased road width is required by DOT.

(2010 California Fire Code, California Code of Regulations, Title 24, Part 9, Chapter 5, Section 503) or (Title 14, California Code of Regulations, Division 1.5, Chapter 7, Subchapter 2, Article 2. Emergency Access, Section 1273.01 of the Fire Safe Regulations).

Item #3- Roads shall be constructed with an approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 40,000 pounds.

(Title 14, California Code of Regulations, Division 1.5, Chapter 7, Subchapter 2, Article 2. Emergency Access, Section 1273.02 of the Fire Safe Regulations).

Item #4- The maximum length of the dead end road shall not exceed **800** feet for parcels zoned for **less than one** acre.

(Title 14, California Code of Regulations, Division 1.5, Chapter 7, Subchapter 2, Article 2. Emergency Access, Section 1273.09 of the Fire Safe Regulations).

Dead End Roads: Pursuant to Title 14, California Code of Regulations, Article 2, Section 1273.09, of the SRA Fire Safe Regulations, the maximum length of a dead-end road, including all dead-end roads accessed from the dead-end road, shall not exceed the following cumulative lengths, regardless of the numbers of parcels served:

- parcels zoned for less than one acre-----800 feet
- parcels zoned for 1 acre to 4.99 acres-----1320 feet

CONSERVATION IS WISE-KEEP CALIFORNIA GREEN AND GOLDEN

- parcels zoned for 5 acres to 19.99 acres -----2640 feet
- parcels zoned for 20 acres or larger -----5280 feet

All lengths shall be measured from the edge of the roadway surface at the intersection beginning the road to the end of the road at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes, requiring different length limits, the shortest allowable length shall apply. The lengths of all dead-end roads shall be graphically depicted and identified on the site and improvements plans prior to the filing of the map.

Item #5- Dead end roads shall have a turnaround constructed at its terminus.

(Title 14, California Code of Regulations, Division 1.5, Chapter 7, Subchapter 2, Article 2. Emergency Access, Section 1273.09(c) of the Fire Safe Regulations).

More restrictive standards may be proposed by the local Fire Protection District or the County of El Dorado and should in no way be construed to be in conflict with the above recommendations.

If you have any questions regarding this matter, feel free to contact me for additional information.

Sincerely,

/s/ Darin McFarlin

Darin McFarlin Pre-Fire Engineer

Cc: Mike Lilienthal, Fire Marshall State Clearinghouse

,

EL DORADO LAFCO

LOCAL AGENCY FORMATION COMMISSION

550 Main Street Suite E • Placerville, CA 95667 Phone: (530) 295-2707 • Fax: (530) 295-1208 lafco@edlafco.us • www.edlafco.us

January 14, 2013

Pierre Rivas Principal Planner El Dorado County Development Services Department 2850 Fair Lane Placerville, CA 95667

RE: Dixon Ranch Environmental Impact Report Notice of Preparation—Second Proposal

Dear Mr. Rivas:

Thank you for the opportunity to review and provide comments on the second Dixon Ranch Residential Project, which includes development of 605 units on 280 acres in the El Dorado Hills area. LAFCO's input for this second proposal is essentially the same as our original comments submitted for the first proposal on July 3, 2012.

As you are aware, APNs 126-020-01, -02, -03, -04 and 126-150-23 are not within the boundaries of the EI Dorado Irrigation District (EID) nor the EI Dorado Hills Community Services District (EDHCSD), however all five subject parcels are within the spheres of influence for both districts. In addition, although APN 126-020-04 appears to be within the Rescue Fire Protection District service boundaries, the remaining four subject parcels are not within a Fire Protection District, however they are within the EI Dorado Hills County Water District (EDHCWD) sphere of influence.

As indicated in the project information package and by the applicant in previous meetings with LAFCO staff, it is expected that the Dixon Ranch project will require various municipal services (water, wastewater, fire protection, park and recreation) from the above districts in order to support the proposed development. LAFCO approval for annexation is required prior to receiving services from these districts. It is recommended that the applicant contact LAFCO near the end of the tentative map approval process to initiate the reorganization process for annexation into the EID, EDHCSD and EDHCWD.

Since the above project will require LAFCO involvement for multiple boundary changes and LAFCO would also require an environmental review for the application, it is in the best interest of the applicant and all involved parties if one CEQA document is prepared that covers all of the necessary processes. LAFCO respectfully requests that the Initial Study address the following potential issues:

Cumulative Impacts: The Initial Study needs to consider potential cumulative impacts based on a range of recent, probable and reasonably foreseeable projects, including land use projects recently

COMMISSIONERS

Public Member: Don Mette • Alternate Public Member: Niles J. Fleege
City Members: Hal Cole, Wendy Mattson • Alternate City Member: Carl Hagen
County Members: Ron Briggs, Ron "Mik" Mikulaco • Alternate County Member: Brian Veerkamp
Special District Members: Ken Humphreys, Vacant • Alternate Special District Member: Shiva Frentzen
STAFF

José C. Henríquez, Executive Officer • Erica Sanchez, Policy Analyst Denise Tebaldi, Interim Commission Clerk • Andrew Morris, Commission Counsel

Dixon Ranch Subdivision Second EIR NOP Comments 1/18/2013 Page 2 of 2

approved by the County and pending projects slated to move forward with the approval of the County's General Plan.

Water Supply, Pumping and Treatment Facilities: The Initial Study should include a discussion of the potential water supply impacts that may occur as a result of the project. This would entail how much water would be required to adequately serve this project, and whether that water is currently projected to be available, the existing infrastructure that will be used to deliver service; the location, size and capacity of existing infrastructure, and how this water requirement will affect the overall water supply for the service area. Attention should also be given to any potential adverse effects that may occur to surrounding residents who are currently receiving water service. The same scope of discussion should occur in regards to local pumping and treatment facilities; including the location and size of the existing infrastructure of the nearest water treatment facility and whether it has the capacity to serve the proposed project or if additional infrastructure will be required for pumping the water to the project site. In addition, overall cumulative impacts to water availability as a result of this project should be examined.

Water Quality/Wastewater Treatment Issues: The same scope of discussion that was required for water issues should also be studied for wastewater treatment issues.

Agricultural Land Issues: Where applicable, the Initial Study should address any potential impacts on agricultural uses. This would include any project that would potentially impact the physical and economic integrity of agricultural land in the County due to increased competition for scarce resources, and introduction of new development into agricultural lands. In addition, the Initial Study should also discuss any economic impacts to agricultural activities in the surrounding area as well as any efforts to be undertaken to minimize any conflicts in land use.

In addition, please ensure that LAFCO is listed as a Responsible Agency for this project when the draft environmental document is prepared and circulated, so that we may have a chance to provide comments before the final document is adopted. Once again, we thank you for giving LAFCO the opportunity to comment and we look forward to receiving additional materials in the future.

I can be contacted at (530) 295-2707 if you have any questions or if the applicant would like to further discuss initiating the reorganization application.

Sincerely,

Erica Sanchez

LAFCO Policy Analyst

Frica Seurches

cc: Dixon Ranch Partners
Lori Grace, El Dorado Irrigation District

Richard Ramirez, El Dorado Hills Community Services District Chief David Roberts, El Dorado Hills County Water District Chief Thomas Keating, Rescue Fire Protection District

DEPARTMENT OF TRANSPORTATION

DISTRICT 3—SACRAMENTO AREA OFFICE 2379 GATEWAY OAKS DRIVE, SUITE 150 SACRAMENTO, CA 95833 PHONE (916) 274-0635 FAX (916) 274-0602 TTY 711 www.dot.ca.gov



January 17, 2013

032012-ELD-0016 03-ELD-50/PM R2.12 SCH#2012062023

Mr. Pierre Rivas Principal Planner County of El Dorado 2850 Fairlane Court Placerville, CA 95667

Dixon Ranch Residential Project – Notice of Preparation (NOP), Environmental Impact Report

Dear Mr. Rivas:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. The project is located approximately four miles north of US 50 in the unincorporated community of El Dorado Hills. The project proposes to subdivide 280 acres to include 605 single-family detached residential units, a clubhouse, and 84 acres of open space for parks, trails, landscaped lots, and native open spaces. Build-out will likely occur over many years. Required project approvals will include the following: General Plan Amendment; Zone Change; Planned Development; Tentative Map; annexation into the El Dorado Irrigation District; annexation into the El Dorado Hills Community Service District; and annexation into the El Dorado Hills Water Company. The following comments are based on the NOP.

Vehicle Trip Generation and Distribution Changes Resulting from Project

The land use changes proposed in the General Plan Amendment and Zoning Change may pose potentially significant impacts to the State Highway System (SHS). Proposed changes could affect the number of projected generated trips and travel patterns throughout El Dorado County. We expect that a significant number of these trips will utilize the SHS.

Travel data regarding such land use changes should be based upon the new County travel demand model which is currently being updated. Specifically, the EIR should identify the impacts that the increase in traffic will have on SHS segments, intersections, and interchanges, and any necessary mitigations to reduce the impacts to a less than significant level.

"Caltrans improves mobility across California"

Mr. Pierre Rivas/County of El Dorado January 17, 2013 Page 2

Traffic Impact Study (TIS)

Based on the project location, Caltrans anticipates potential significant impacts to US 50 if and when an intensification of traffic-generating development occurs. Therefore, a TIS or a lesser level of analysis may be required to assess the impact of this particular project on the adjacent road network, with specific attention to US 50. We recommend using Caltrans' *Guide for the Preparation of Traffic Impact Studies (TIS Guide)* for determining which scenarios and methodologies to use in the analysis. The *TIS Guide* is a starting point for collaboration between the lead agency and Caltrans in determining when a TIS is needed. It is available at the following website address:

http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf.

If the proposed project will not generate the amount of trips needed to meet Caltrans trip generation thresholds, please provide an explanation of how this conclusion was reached. Please contact us to coordinate preparation of the scope of the study with our office.

At a minimum, the traffic analysis should include Silva Valley Road and the future US 50 Interchange, the Bass Lake Road Interchange, El Dorado Hills/Latrobe Road Interchange, and the US 50 mainline from Bass Lake Road to El Dorado Hills/Latrobe Road. The analysis should include ramp intersections at the interchanges and merge/diverge and ramp junctions on US 50.

For any questions regarding this letter, please contact Susan Wilson, Intergovernmental Review Coordinator for the County of El Dorado, at (916) 274-0639 or by email at Susan Wilson@dot.ca.gov

Sincerely,

ERIC FREDERICKS, Chief

Office of Transportation Planning-South

Enclosure

c: Scott Morgan, State Clearinghouse



County of El Dorado Air Quality Management District

330 Fair Lane, Placerville Ca 95667 Tel. 530.621.6662 Fax 530.295.2774 www.edcgov.us/AirQualityManagement

Dave Johnston Air Pollution Control Officer

December 20, 2012

El Dorado County Development Services Department ATTN: Mr. Pierre Rivas, Principal Planner 2850 Fairlane Court, Placerville, CA 95667

SUBJECT:

Notice of Preparation of an Environmental Impact Report for the Dixon Ranch Residential Project – (File Nos. A11-0006, Z11-0008, PD11-0006, & TM11-1501) -

AQMD COMMENTS

Dear Mr. Rivas:

The El Dorado County Air Quality Management District (AQMD) has received and reviewed the updated Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Dixon Ranch Residential Project. This approximately 280 acre project is located in the El Dorado Hills community, south of Green Valley Road near its intersection with Malcom-Dixon Road, and will take access from Green Valley Road and Lima Way. The proposed project is now 605 small-lot single-family detached residential units (160 of which will be age-restricted), and an open space area of 84 acres.

The AQMD has the following comments:

CEQA Review

- 1. Emissions Modeling: The EIR should include a detailed analysis of potential air emissions related to the project. AQMD strongly recommends the use the statewide land use emissions computer model CalEEMod; designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operation of a variety of land use projects. CalEEMod was developed in collaboration with California air districts and is the new preferred emissions estimator modeling software. It can be downloaded free at www.caleemod.com. Please, include all analyses assumptions, calculations and modeling runs in the document (or its appendices).
- 2. Impact Analysis: AQMD's Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts under the California Environmental Quality Act (February 2002) should be used to determine potential environmental impacts of the project pursuant to CEQA. http://www.edcgov.us/Government/AirQualityManagement/Guide_to_Air_Quality_Assessment.aspx. Even though the AQMD and the County have no established threshold limits for GHG, CEQA requires the project be evaluated for greenhouse gas emissions, that the significance of these emissions be determined, and feasible mitigation measures be applied. The CalEEMod model referenced above identifies mitigation measures to reduce criteria pollutant and GHG

- emissions along with calculating the benefits achieved from measures chosen by the user. The GHG mitigation measures were developed and adopted by the California Air Pollution Control Officers Association (CAPCOA).
- 3. Cumulative Air Quality Impacts: The cumulative air quality impacts of the project must be addressed as the project requires a change in the existing land use designation (i.e. general plan amendment), and projected emissions (ROG, NOx, CO, PM₁₀ and GHG) may be greater than the emissions anticipated for the site if developed under the existing land use designation (El Dorado County APCD CEQA Guide First Edition February 2002, Chapter 3, subsection 3.3.6 Significance Criteria for Determining Cumulative Impacts, Chapter 3, page 7).
- 4. Alternatives: Consider utilizing Leadership in Energy and Environmental Design: Neighborhood Development (LEED-ND; www.usgbc.org/leed/nd/) techniques and green building design to reduce vehicle miles traveled, energy use, and greenhouse gas emissions. Demonstrate how transit, cycling, and other modes are integrated into the project to facilitate regional travel to job centers. Other internal circulation alternatives, such as roundabouts, should be considered for their air quality benefits over conventional treatments, (i.e., stop signs and traffic signals). Roundabouts reduce vehicle delay, increasing fuel efficiency, and reducing emissions; in addition to increasing both vehicular and pedestrian safety, increasing circulation efficiency, and other ancillary benefits.

Future Development

- 5. Asbestos Dust Mitigation Plan: The project construction will involve grading and excavation operations, which will result in a temporary negative impact on air quality with regard to the release of particulate matter (PM₁₀) in the form of dust. Furthermore, a portion of the project site is located within the "Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line," as indicated on the Asbestos Review Areas: Western Slope map dated July 21, 2005. Therefore, the project proposed project must comply with the El Dorado County AQMD Rule 223-2 Fugitive Dust Asbestos Hazard Mitigation. In addition, an Asbestos Dust Mitigation Plan (ADMP) Application with appropriate fees shall be submitted to and approved by the AQMD prior to start of project construction.
- 6. Portable Equipment: All portable combustion engine equipment with a rating of 50 horsepower or greater shall be permitted by the California Air Resources Board (CARB). A copy of the current portable equipment permit shall be with said equipment. The applicant shall provide a complete list of heavy-duty diesel-fueled equipment to be used on this project, which includes the make, model, year of equipment, daily hours of operations of each piece of equipment
- 7. Construction Emissions: During construction, all self-propelled diesel-fueled engines greater than 25 horsepower shall be in compliance with the California Air Resources Board (ARB) Regulation for In-Use Off-Road Diesel Fueled Fleets (§ 2449 et al, title 13, article 4.8, chapter 9, California Code of Regulations (CCR)). The full text of the regulation can be found at ARB's website here: http://www.arb.ca.gov/msprog/ordiesel/faq/applicability flow_chart.pdf. Questions on applicability should be directed to ARB at 1-866-634-3735. ARB is responsible for enforcement of this regulation.
- 8. Land Clearing: Burning of wastes that result from "Land Development Clearing" must be permitted through the AQMD. Only vegetative waste materials may be disposed of using an open outdoor fire (Rule 300 Open Burning).

- 9. Paving: Project construction will involve roadway development and must adhere to AQMD Rule 224 Cutback and Emulsified Asphalt Paving Materials.
- 10. Coatings: The project construction may involve the application of architectural coating, which shall adhere to **AQMD Rule 215 Architectural Coatings**.
- 11. District Permit(s): Prior to construction/installation of any new point source emissions units or non-permitted emission units (i.e., gasoline dispensing facility, emergency standby engine, etc.), Authority to Construct applications shall be submitted to the AQMD. Submittal of applications shall include facility diagram(s), equipment specifications and emission factors. (Rule 501.3.A)

The above AQMD rules are found in the County of El Dorado Air Quality Management District Rules and Regulations. A copy of the AQMD Rules and Regulations is available at the following internet address: www.edcgov.us/airqualitymanagement.

If you have any question regarding our comments, please do not hesitate to contact the District at (530) 621-7501.

Respectfully,

Adam Baughman Air Quality Engineer

El Dorado County AQMD

S:\CEQA\AQMD Comments\2011Planning\NOP EIR\Dixon Ranch AQMD NOP Comments 12-20-12.doc



The County of El Dorado

Agriculture, Weights & Measures

Inter Office Memorandum

January 8, 2013

To:

Pierre Rivas, Principal Planner

From:

Charlene Carveth, Agricultural Commissioner

Subject:

Notice of Preparation of an Environmental Impact Report for the Dixon

Ranch Residential Project (File Nos. A 11-0006, Z 11-0008, TM 11-1505)

The findings of the Agricultural Commission will remain the same with the requested planned development being decreased to 605 single-family detached residential units, as the proposed Dixon Ranch subdivision request to rezone the subject parcels from agricultural zoning to residential zoning to provide consistency with the General Plan, as the project site is located within the El Dorado Hills Community Region and has a residential land use designation, and although the parcels were historically used for grazing purposes, housing development is directed to occur in the Community Regions of the County. The three findings for General Plan Policy 8.1.4.1 were made on the proposed project at the November 9, 2011:

- A. Will not intensify existing conflicts or add new conflicts between adjacent residential areas and agricultural activities; and
- B. Will not create an island effect wherein agricultural lands located between the project site and other non-agricultural lands will be negatively affected; and
- C. Will not significantly reduce or destroy the buffering effect of existing large parcel sizes adjacent to agricultural lands."

I have attached the memorandum from the November 9, 2011 Agricultural Commission meeting for your review.

Protecting Agriculture, People and the Environment

COUNTY OF EL DORADO



AGRICULTURAL COMMISSION

311 Fair Lane Placerville, CA 95667 (530) 621-5520 (530) 626-4756 FAX eldcag@edcgov.us Greg Boeger, Chair — Agricultural Processing Industry Lloyd Walker, Vice-chair — Other Agricultural Interests Chuck Bacchi — Livestock Industry Bill Draper, Forestry /Related Industries Ron Mansfield — Fruit and Nut Farming Industry Tim Neilsen — Livestock Industry John Smith — Fruit and Nut Farming Industry

MEMORANDUM

DATE:

November 16, 2011

TO:

Aaron Mount, Development Services/Planning

FROM:

Greg Boeger, Chair

SUBJECT:

A 11-0006, Z 11-0008, TM 11-1505, PD 11-0006, Dixon Ranch Subdivision

APN's 126-020-01, -02, -03, -04, and 126-150-23

During the Agricultural Commission's regularly scheduled meeting held on November 9, 2011 the following discussion and motion occurred regarding A 11-0006, Z 11-0008, TM 11-1505, PD 11-0006, Dixon Ranch Subdivision; a request for a General Plan amendment changing the subject properties from Low Density Residential (LDR) and Open Space (OS) to High Density Residential (HDR), Medium Density Residential (MDR), and Open Space (OS) and a request to modify the Community Region boundary moving a portion of the project site into the Rural Region, a rezone from Exclusive Agricultural (AE) to R1-PD, RF-PD, R3A, R3A-PD, RE-5, and OS-PD, a tentative subdivision map – planned development request to create 714 residential lots ranging in size from 4,500 square feet to 6 acres and 84.1 acres or 30% total open space including native open space, parks and landscape lots on a 280.27-acre site.

The subject parcel is identified by Assessor's Parcel Numbers 126-020-01, -02, -03, -04, and 126-150-23 and is located south of Green Valley Road approximately 100 feet southeast of the intersection of Malcolm Dixon Road in the El Dorado Hills area. (District 2)

Chris Flores presented her staffreport. The project site was displayed via a power point presentation. The project site is not located within an Agricultural District, but rather, within the El Dorado Hills Community Region. Ms. Flores read a portion of General Plan Policy 2.1.1.2 which describes Community Regions: Policy 2.1.1.2 — Community Regions are those areas "...which are appropriate for the highest intensity of self-sustaining compact urban-type development or suburban type development within the County, based on the municipal spheres of influence, availability of infrastructure, public services, major transportation corridors and travel patterns, the location of major topographic patterns and features, and the ability to provide and maintain appropriate transitions at Community Region boundaries..."

The parcels have a current General Plan Land Use Designation of Low Density Residential (LDR). The existing zoning, Exclusive Agricultural (AE), is left over from the days when the entire area was in Agricultural Preserve # 2 for grazing purposes. The subject parcels were rolled-out of their Williamson Act Contract in 1997. The existing zoning is not consistent with the General Plan designation of LDR. Surrounding land use designations include High Density Residential (HDR), Low Density Residential (LDR), Adopted Plan (AP), and Rural Residential (RR). Surrounding

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zonings include One-Half Acre Residential, Estate Residential Five-Acre (RE-5) and Estate Residential Ten-Acre (RE-10). Existing soil types on the project site include AxD – Auburn Very Rocky Silt Loam, 2 to 30% Slopes and AwD – Auburn Silt Loam, 2 to 30% Slopes (a soil type recognized on February 10, 2010, by the Agricultural Commission, as a Soil of Local Importance for El Dorado County Vineyards). The Auburn series produces good forage for grazing and are considered suitable rangeland soils.

Ms. Flores reminded the Commission that the reason the Ag Commission is hearing the project is because of the existing agricultural zoning. Therefore, the Ag Commission should only be concerned with the applicant's rezone request. General Plan Policy 8.1.4.1 requires that, "The County Agricultural Commission shall review all discretionary development applications and the location of proposed public facilities involving land zoned for or designated agriculture, or lands adjacent to such lands, and shall make a recommendation to the reviewing authority. Before granting approval, a determination shall be made by the approving authority that the proposed use:

- A. Will not intensify existing conflicts or add new conflicts between adjacent residential areas and agricultural activities; and
- B. Will not create an island effect wherein agricultural lands located between the project site and other non-agricultural lands will be negatively affected; and
- C. Will not significantly reduce or destroy the buffering effect of existing large parcel sizes adjacent to agricultural lands.

Pierre Rivas, Planning Services, added to Staff's report. He reiterated that due to the historic grazing of the project site and the existing Exclusive Agricultural (AE) zoning, the project was mandated by the General Plan to be heard by the Ag Commission. He mentioned that the project site is an island of agriculturally zoned land surrounded by residentially zoned land and residential uses. Mr. Rivas emphasized that the project site's land use designation of Low Density Residential (LDR) is consistent with it's location within the El Dorado Hills Community Region and that the site has been located within the Community Region since at least 2004, when the General Plan was adopted by the County. Mr. Rivas read a section from the General Plan, describing Low Density Residential: Policy 2.2.1.2 - "This land use designation establishes areas for single-family residential development within a rural setting. In Rural Regions, this designation shall provide a transition from Community Regions and Rural Centers into the agricultural, timber, and more rural areas of the County and shall be applied to those areas where infrastructure such as arterial roadways, public water, and public sewer are generally not available. This land use designation is also appropriate within Community Regions and Rural Centers where higher density serving infrastructure is not yet available." Mr. Rivas then mentioned that it would be incumbent upon the applicant to develop the necessary infrastructure for the project and demonstrate that the infrastructure would support the project. He also added that the project in its entirety would be reviewed by Planning and the Planning Commission, and an Environmental Impact Report would be required. He reminded the Ag Commission that their review of the project was very narrow in scope, as it pertains only to the rezone from AE to residential zoning.

Mr. Boeger emphasized that it was not within the Ag Commission's purview to approve or deny the project; that the Ag Commission is only a "Recommending Body" to the approving authority, the Board of Supervisors, and the Ag Commission would only be making a recommendation on the rezone request.

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Mr. Bacchi asked Mr. Rivas if the project site was included in the Community Region in the 1996 General Plan. Mr. Rivas stated that he was not certain, but that it was definitely included in the 2004 plan. Mr. Bacchi clarified that if the project site was located within a Community

Region, the site could not be protected as historic grazing land. Mr. Rivas answered that Mr. Bacchi was correct. Discussion followed regarding the General Plan and where it directs growth. Mr. Boeger made the comment that growth was to be directed into the Community Regions and Rural Centers of the County in order to preserve the more rural regions of the County. Accommodation for growth, within Community Regions, was discussed.

Joel Korotkin, Agent for the Dixon Ranch Partners, was present and available for questions. He stated that the project site had been set aside for future growth by the 2004 General Plan by placing it within the Community Region. The site had been identified for an area for residential growth.

Chair Boeger opened up the floor for public comment. He emphasized that the Ag Commission's purview was agriculture and the applicant's specific request to change the agricultural zoning. He reminded the public that they would have a chance to speak about their other issues at the Planning Commission and Board of Supervisor hearings.

Over 15 comments were received from the public. Major concerns included traffic issues; existing wetlands, streams, and ponds and how they would be incorporated into the project; water quality issues, well production issues, and the oak woodlands; maintenance of the rural feel of the community; fire safety and wildlife habitat concerns; asbestos concerns, etc. Two neighboring residents stated that they have vineyards adjacent to the project site and asked for buffering considerations. A couple of the speakers asked that the Ag Commission make a recommendation that the applicants rezone to Estate Residential Five Acre or Ten Acre zoning, to match the surrounding neighborhoods to the east and north.

Mr. Boeger brought the discussion back to the Board. He asked Ms. Flores to read staff's recommendation for the Ag Commission. Ms. Flores read the following recommendation:

"Staff recommends APPROVAL of the Dixon Ranch subdivision request to rezone the subject parcels from agricultural zoning to residential zoning to provide consistency with the General Plan, as the project site is located within the El Dorado Hills Community Region and has a residential land use designation, and although the parcels were historically used for grazing purposes, housing development is directed to occur in the Community Regions of the County. Staff concludes that the findings for General Plan Policy 8.1.4.1 can be made "...the proposed project:

- A. Will not intensify existing conflicts or add new conflicts between adjacent residential areas and agricultural activities; and
- B. Will not create an island effect wherein agricultural lands located between the project site and other non-agricultural lands will be negatively affected; and
- C. Will not significantly reduce or destroy the buffering effect of existing large parcel sizes adjacent to agricultural lands."

Ms. Flores reiterated that a recommendation to change the zoning from agricultural zoning to residential zoning, consistent with the land use designation, would not be making a change.

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A motion was made by Mr. Smith and seconded by Mr. Bacchi to recommend APPROVAL of the Dixon Ranch request to rezone APN's 126-020-01, -02, -03, -04, and 126-150-23 from Exclusive Agricultural (AE) zoning to residential zoning consistent with the General Plan and the land use designation and that all necessary considerations for adjacent agriculture on adjoining lands be taken into account when zoning and environmental impacts are considered. The findings for General Plan Policy 8.1.4.1 can be made "...the proposed project:

- A. Will not intensify existing conflicts or add new conflicts between adjacent residential areas and agricultural activities;
- B. Will not create an island effect wherein agricultural lands located between the project site and other non-agricultural lands will be negatively affected; and
- C. Will not significantly reduce or destroy the buffering effect of existing large parcel sizes adjacent to agricultural lands."

Motion passed.

AYES:

Bacchi, Smith, Mansfield, Neilsen, Walker, Boeger

NOES:

None

ABSENT:

Draper

Mr. Neilsen added that people who live on five and ten acre parcels who have small orchards or vineyards or raise their own animals, are important to everyone. He clarified that the Ag Commission's responsibility and purview is to agriculturally *zoned* land. When the discussion revolves around residentially designated or zoned lands, their hands are tied.

Mr. Bacchi added that the Commission recognizes that people living on 5-10 acre parcels are more aligned with rural lifestyles and agriculture than those living in a high density residential development, and the Commission appreciates that fact. However, he reminded the public that the Ag Commission is a recommending body with constraints.

Note: Three letters and one petition were received stating opposition of the Dixon Ranch Subdivision project from the following neighbors: Victoria L. Sacksteder, Robert and Bonnie Reitz, John T. Hossack and twenty-four signatures were listed on the petition.

If you have any questions regarding the Agricultural Commission's actions, please contact the Agriculture Department at (530) 621-5520.

GB:na

cc: Dixon Ranch Partners

CTA Engineering & Surveying



El Dorado Hills

Area Planning Advisory Committee 1021 Harvard Way El Dorado Hills, CA 95762 **2012 Board**

Chair
John Hidahl
Vice Chair
Jeff Haberman
Secretary/Treasurer
Alice Klinger

January 14, 2013

El Dorado County Planning Services Attn: Pierre Rivas, Principal Planner 2850 Fairlane Court Placerville, CA 95667

Subject: APAC Comments on the Notice of Preparation of an Environmental Impact Report for the Dixon Ranch Residential Project (file nos. A11-0006, Z11-0008, PD11-0006, & TM111505

Dear Pierre,

The APAC committee submits the following comments listed below on the Dixon Ranch Residential Project NOP. The information for this project review is based on the following website: http://edcapps.edcgov.us/Planning/ProjectDocuments/NOP(2).pdf. APAC was unable to receive the revised design package for the project due to the EDH CSD being closed for the holidays. APAC receives its correspondence from the County for project reviews and comments via the CSD. APAC was advised that many of our EDH residents in the Green Valley Corridor area were unable to comment readily due holiday absences and other commitments. It would be helpful if the comment period was extended another 30 days to allow all interested parties to comment, given the difficulties associated with the holiday season timing of the release of the updated information.

APAC requests that all comments submitted by the public to the previous design be included as part of the new design NOP.

If you have any question about any of the comments and concerns expressed herein, please contact John Hidahl, APAC Chairman at Hidahl@aol.com or (916 933-2703) or the GVC subcommittee chairman for this project, Norm Rowett at: arowett@pacbell.net or (916 933-2211).

APAC appreciates having the opportunity to comment on this project.

Sincerely,

John Hidahl

John Hidahl APAC Committee chair

Cc: EDCo Planning Commission

EDCo BOS APAC read file

APAC's Dixon Ranch NOP Comments

POTENTIAL ENVIRONMENTAL EFFECTS

The EIR will evaluate whether the proposed project may potentially result in one or more significant environmental effects. The topics listed below will be further analyzed in the EIR.

Aesthetics

This project will substantially change the character of this area of the Green Valley Road Corridor from rural to high density. This will result in a multitude of negative aesthetics, i.e. loss of open spaces, view shed degradation for surrounding neighbors, loss of privacy/screening, and other related issues. Mitigation alternatives must include: 1) Berming and landscaping buffers around the periphery of the property 2) Restrictions on the height and proximity of the homes to the adjacent rural properties 3) Use of 'visually softening' fencing within the subdivision.

An evaluation of the effects of the street lighting at major intersections within the development and at Green Valley Road must be performed for purposes of maintaining a dark skies policy.

The project 2 main road entrances will change the landscape of the existing connector roads. This will require **mitigation measures** to visually blend the new project with the existing rural setting.

Agriculture

There is a vineyard located next to the property which could be impacted resulting in a loss of production, especially during the construction phase if the wind-driven dust is not controlled adequately. The Draft EIR should address a protection method/mitigation measure to prevent any crop losses associated with the project.

Air Quality

This area already often exceeds the State air quality limits to avoid health risks associated with air pollution. The addition of 605 houses and corresponding daily traffic will cause a worsening condition and perhaps related health problems for some highly susceptible individuals. The draft EIR should include an air quality comparative analysis that quantifies the additional impacts from this proposed project in comparison to the existing conditions.

Biological Resources

There are hundreds of Oaks tree on the parcel. A tree preservation/removed tree mitigation plan must be included consistent with the County Oak Tree Ordinance.

Cultural Resources

This site was part of a Native American Indian tribal area and may contain Indian artifacts both above and below ground. The draft EIR should determine if any of these artifacts are on site and a mitigation plan established to preserve artifacts if they are found.

A very high density neighborhood in the middle of low density neighborhoods and rural will change the cultural and environmental landscape in a way that steals from the investment and dream of current invested residents who live there. **Please evaluate this impact.**

Geology and Soils

The depths of the top soils on the project must be tested and mapped in order to define the maximum excavation depths in different areas to ensure that significant topsoil depths exist for all of the homeowner lots. **Mass pad grading and other similar 'deep cut and fill' practices should not be allowed.**

El Dorado Hills APAC - Non-partisan Volunteers Planning Our Future

* Wildlife

The density of homes and the road network will cut off the movement and migration of wildlife between the Serrano open space and the rural areas to the east and north of the proposed development. It will also cause substantial injury to wildlife and their habitat. The land is part of a known mountain lion range. There are coyotes, turkeys, bobcats, deer, foxes, owls, raccoons, rodents, and numerous species of hawks. **Please address this impact.**

Greenhouse Gas Emissions

Please analyze the amount of Greenhouse gas generated by this project and the impact to the environment.

Hazards and Hazardous Materials

The project site contains asbestos and other hazardous material. Please address the impact of airborne asbestos created by the tremendous amount of grading required for the proposed project. Please address both the asbestos dust from grading as well as the asbestos that is moved to the surface and present in dry form after the surface runoff from rain or watering for dust control dries out. This thin layer of dry asbestos is easily transported in the wind. Also, please address affects the asbestos has on aquatic life for the asbestos that will be carried into the streams and lake. **Please evaluate all of these hazardous conditions.**

Hydrology and Water Quality

This project's water runoff will drain into Folsom lake from New York and Sweetwater creeks and cause degradation of water quality. Please address **how will this be prevented?**

Please include in the analysis herbicides, pesticides, fertilizers, soaps, detergents, and automobile chemicals (leaking motor oil, coolant, etc.). Also, address the impact this will have on the water supply that is pumped just downstream from the New York Creek inlet in Folsom Lake.

Please include in the analysis the effect of nitrogen-containing fertilizers and detergents on algae and aquatic plant growth in the streams and in the lake. Also, address the additional flow rate effects/year round flow caused by landscape irrigation, etc. Please include the longer breeding season this creates for mosquitoes and other insects and the diseases they carry.

Land Use

This property is zoned low density and would have low impact on the environment if developed under the current zoning. The Draft EIR should provide a side-by-side comparison of the impacts if the new zoning is approved.

The developer has said they may change the lot sizes at a later date. The EIR should evaluate the impacts if the lots sizes are changed.

Noise

Evaluate the noise impacts to residents who live in the area from additional cars and trucks that will use Green Valley road.

Having over 5,150 vehicle trips per day added to the neighborhood will definitely increase the noise level.. Even now, noisy cars, speeding cars, loud radios in cars, can be heard throughout a lot of the development, not just on the street they are traveling. Also, the traffic noise from Green Valley Road can currently be heard in the Highland View community. With the traffic being doubled on Green Valley with high density housing, the noise level will dramatically be increased and what is now a low hum of traffic noise will be like sitting on top of a main thoroughfare.

Population and Housing

The Draft EIR should evaluate the increases in population and housing on existing infrastructure and services. The 2004 General Plan population map designation for El Dorado Hills doesn't require the Dixon Ranch project to meet its housing requirement goals. Please evaluate the need for the additional population from the Dixon Ranch with the population goal required in the 2004 General Plan and the additional impacts on the environment with the higher population from the project.

Public Resources

The Draft EIR should disclose the impact and a plan for migration of the project on the El Dorado Hills library.

The NOP does not provide enough detail on the proposed projects water supply and required water and wastewater infrastructure. Although EID may be able to supply the water for the proposed project at this time, please address the impact the water demanded by the proposed project will have on the build-out of El Dorado County and other projects in the future that demand water—especially in drought years where we are already asked to cut way back on water usage. The significant additional water usage in the proposed project area will cause others served by EID to have to make sacrifices they would otherwise not have to make. Other land owners will have their development rights restricted because of the lack of availability of water in the future. This project has over 550 additional homes above what the land use designation would allow. This will result in the project taking more than their fair share of the limited water supply in the county. The Draft EIR should clearly identify the long-term water supply and address these impacts.

Recreation

APAC requests that the draft EIR include analysis of impact to existing and proposed recreational facilities that would service the project. For the proposed facilities, the analysis should identify the funding mechanism and make sure the funding will be available when infrastructure is required as well as the mechanism for funding the on-going facility maintenance.

• Transportation/Traffic

The draft EIR should require a new traffic impact study to replace the just released May 9, 2012 traffic Impact study which doesn't address the public input from affected residents that are aware of existing traffic congestion and safety problems.

The draft EIR should address alternative ingress and egress to the project. The project will have a major impact on Green Valley Road.

The long cul-de-sacs with 25 homes should be evaluated for fire safety and evacuation requirement is case of emergencies.

The Draft EIR should evaluate a stop light with a demand signal located at the Green Valley Road intersection. Green Valley Road must be widened to four lanes with dedicated right and left turn lanes (decelerating right hand turn lane).

The widths of the streets, especially the cul-de-sacs, are too narrow and would restrict traffic flow; **this should be evaluated for safety for pedestrians'.**

Comments re: Traffic Impact Analysis for Dixon Ranch Project

The current Traffic Impact Analysis (TIA) **fails to take into account the unique geometry of the area and specific design of the proposed development**. Generic factors, etc. are only good for an order of magnitude estimate. The model Kimley-Horn used is a "macro" model. On page 32 of the TIA they even admit that "The site plan for the proposed project (Figure 2) was qualitatively reviewed for general access and on-site circulation." Thus, no quantitative analysis was performed for the site. We believe this also applies to the area incorporating the Highland View neighborhood.

The TIA did not model numerous roads and intersections including:

- Roads through the Stirlingshire and Highland Hills neighborhoods
- Intersections at EDH Blvd and: Governor Dr, Harvard Way, Olson Lane, and Wilson Blvd.
- The intersection at Harvard Way and Clermont Way
- Roads and intersections within the proposed project

The TIA analysis of trip distribution (routes used to determine where people go) is not accurate for the **proposed project** as it relies on all of the existing EDH neighborhoods and Cameron Park as its basis for the route preference

The model also failed to include many common destinations residents of EDH travel including:

- Oak Ridge High School
- CSD pool/play fields/Teen Center
- Town Center (Target, Nugget Market, movie theaters, post office, etc.)
- Hwy 50 shopping in the Raley's area
- The EDH Business Park

APAC doesn't believe the TIA modeled signal timing. Without that, how do they really know the intersection delays? Did they use some efficiency factors and/or make assumptions that may or may not apply?

The EIR should point out these failures in the TIA and require that a model be developed that is specific to the proposed project and surrounding area to adequately assess these significant environmental impacts.

TIA excluded analysis of impacts on Stirlingshire, Malcolm Dixon, Allegheny, Highland View or Highland Hills in general. It's a fact that these roadways are and will be seriously impacted by addition of 6,000 trips in area. **The EIR needs to validate this!**

TIA did not review impact of increased traffic on Silva Valley Parkway. Specifically, how the increased volumes will impact the four schools along SVP: the public safety of the children; the exacerbation of existing congestion during peak drop off/pick up times. **The EIR needs to evaluate this condition.**

The TIA was evidently performed using traffic data collected over the summer months when school was out and used dated numbers. Traffic counts collected before June of 2012 must be used to get an accurate analysis of current conditions. Please evaluate the impact of having an outdated and inaccurate TIA.

Green Valley road is deadly, claiming lives each year. They can't just widen it; it needs to be straightened. There are serious accidents on Green Valley road and most happen when the traffic backs up at the lights at Francisco and EDH BLVD intersections. It is also dangerous going east, when you get to Francisco and Green Valley, in front of El Dorado Saloon, it goes from two lanes to one lane. Around 5PM to 7PM, the light stacks up the heavy traffic at Salmon Falls and Green Valley. There is only a short distance for cars to get into one lane, and then prepare to stop. It will only get worse with the additional traffic generated from Dixon Ranch. Also, Allegheny cannot support any more "shortcuts" from people traveling from Green Valley West to Salmon Falls. They take the shortcut through Allegheny and have to traverse over one of the two narrow Pony Express bridges on Malcolm Dixon road. **Please evaluate this traffic impacts**.

The current traffic patterns have numerous choke points in this area of El Dorado Hills. Furthermore, current traffic patterns are problematic on Green Valley Road and Silva Valley Parkway. This is acute during the school year with the cluster of schools at Harvard Way and Silva Valley as well as Francisco and Green Valley. These road ways are also heavily traveled during the evening commute hours. **What improvements will be made to prevent this area from total traffic gridlock during the commute periods?**

We recommend that traffic demand analysis be analyzed *very* carefully to determine which of the two Green Valley road entries to the development will carry the majority of traffic.

Please study and publish the feasibility of connecting the proposed development with (East) Green Spring Road as alternative exist instead of two exist of Green Valley road allowing more distance between intersections.

Please study and publish the feasibility of connecting the proposed development with Marden Drive as alternative exist instead of two onto Green Valley road.

The EIR should gather data on actual trip destinations used by current residents in the north El Dorado Hills area. Possible methods to gather this data include surveying residents and conducting focus group meetings.

This would directly address risk of inaccuracy in conventional traffic demand models for these locality-specific reasons:

Sparseness of the El Dorado Hills road network in relation to population density

Limited commercial resources (shopping) in El Dorado Hills

Limited employment opportunities in El Dorado Hills

Human psychology: Residents' preference for uncongested roads with minimal control delays

Additional traffic comments if the connection to Highland View is reopen for traffic from the project.

The draft EIR should address alternative ingress and egress to the project. The project will have a major impact on Green Valley Road and Aberdeen way.

The hammerhead streets on the Highland View side of the property should be evaluated for connection to the internal traffic flow pattern.

The TIA analysis of trip distribution (routes used to determine where people go) is not accurate for the proposed project as it relies on all of the existing EDH neighborhoods and Cameron Park as its basis for the route preference. For example, people who live in the Francisco Drive area north of EDH Blvd. may travel a different route (such as through Folsom north) to Hwy 50 west bound or the Costco/Home Depot/Folsom Lake College area when compared to someone in the Highland View neighborhood who goes south on SVP to get to these same destinations. The proposed project would also provide a new route to Oak Ridge High School and Highway 50 through the Highland View neighborhood that did not previously exist (see next paragraph).

The TIA failed to address cut-through traffic from GVR in the vicinity of the project and to the east. The shortest and quickest route to many common destinations will be through the proposed project and the Highland View neighborhood. There will also be cut-through traffic the other direction. This will add even more significant traffic to Highland View's narrow, steep, winding residential roads that don't have sidewalks.

The County's own design standard (101B) is not even met by the current design of the Highland View roads. They are 5 feet narrower, exceed the 15% grade on the south side of Aberdeen Lane, have no sidewalks as required, and are right at the 2000 ADT. Adding <u>any</u> traffic to these streets makes the roads further out of compliance with the safety design standard as the design speed would be 35 mph, street width needs to be 15 feet wider and the maximum grade is 12%. In addition, the likely additional volume will exceed 3000 trips per

day and cause the safety standards to be even further violated. This public safety condition must be evaluated to determine the impact on the existing residents of Highland View.

While Lima Way is listed as a secondary access, it has been calculated that it will be quicker to exit the Dixon Ranch development via Lima Way than Green Valley. If this is correct, MapQuest will direct people to use Lima Way, and ultimately Lima Way will become the primary access. **The EIR must address how this condition will be prevented.**

The Highland View streets cannot be widened to accommodate an overwhelming increase in traffic. If the proposed Dixon Ranch development is allowed to move forward, the exit streets for our subdivision would have to accommodate a minimum of an <u>additional</u> 3 times more traffic every day, and other streets, such as Aberdeen, will have to accommodate a much higher percent increase. **This will cause a safety issues and must be evaluated to address the safety of the existing residents along these streets.**

There is also no realistic way to install sidewalks to keep pedestrians safe with 3000 - 6000 <u>additional</u> automobile trips per day. Lima Way exits to Aberdeen, which is a long, steep decline, which naturally results in increased speed. This causes a very real safety hazard for children, bicyclists, pedestrians, and runners, as well as existing vehicle traffic. The safety issues with the high traffic flow through Highland View that would result from the proposed subdivision should be obvious. **This is a critical health and safety issue and a thorough evaluation with real world mitigation measures must be provided to prevent this condition.** Please also evaluate the impact to pedestrians and others using these streets.

High school students would use Highland View as an ideal thoroughfare to get to the high school and driving down the steep hills and would encourage them to drive faster. Judging from other high school students who drive up here to see their friends, the stop signs are inconvenient to them and often they drive through the stop signs. Adding, perhaps another hundred plus high school drivers, driving to and from school would make our area extremely dangerous to all children and walkers. **Please evaluate this traffic impact on existing streets.**

The biggest concern is the traffic barreling down Appian and the danger to pedestrian or bicycle traffic. It's already a very dangerous situation as cars cross over the white lines threatening those walkers and bikers. The increased traffic will only worsen this problem. **Please evaluate this traffic impact.**

The grade on Aberdeen is 17% on one side and approximately 10% on the other leading to Lima way. There is already a speeding problem now on Aberdeen and increased traffic will be unsafe for local children who currently enjoy using the street to walk (there are no sidewalks) ride bikes and play. The grade was passed as an exception for the current neighborhood (Highland View) and additional traffic on Aberdeen will be a major safety issue. **Please evaluate this impact.**

Please update the traffic impact analysis to include the traffic impacts at the following intersection:

- 1. Aberdeen lane and Naval Drive
- 2. Aberdeen lane and Reem Court
- 3. Aberdeen lane and Murray Court
- 4. Aberdeen lane and Appian Way
- 5. Aberdeen lane and Amer Way
- 6. Aberdeen lane and Loch Way

Utilities and Service Systems

It was stated by the applicant at the May 27th scoping meeting that the Highland View sewer line may be used to support this project. **The capacity of this line with projected additional sewage needs to be thoroughly reviewed and evaluated.**

Mineral Resources

No comment at this time

Cumulative Affects

There are currently 5 approved residential projects and one commercial project seeking approval in the Green Valley corridor area that will have a cumulative effect on the environment. All of the environmental elements must be analyzed to determine the overall impact these projects will have on the environment.

Also, please address the impact this project will have if all other undeveloped areas within 10 miles of the proposed project that have a similar land use designation, Low Density Residential (1 D.U./5 ac.) or Rural Residential (1 D.U./10 ac.), were also developed at 13+ times the designated land use density (as is being requested by this project). Please be sure to address the impact on air quality, county services, roadways, safety, schools, transportation, water availability, and wildlife. This addresses the fairness issue that other land owners could raise if this project is approved and they demand equal treatment by the County for subdividing their parcels outside of the current land use designation.

Jeff Tewksbury

2030 Marden Drive

Rescue, CA 95672

January 2, 2013

Mr. Pierre Rivas, Principal Planner

El Dorado County

Development Services Dept.

2850 Fairlane Court

Placerville, CA 95667

RE: NOP for Dixon Ranch Residential Project

Dear Mr. Rivas,

This letter serves as my objection to the proposed development of the Dixon Ranch, as revised in the December 14, 2012 NOP. The revision of the low density residential land use is detrimental to El Dorado County and the local community. This is a negative impact for the following reasons:

- 1. Traffic Impact of 605 new dwellings will be a negative impact and burden on the 2 lane Green Valley Road. There are no interchanges planned for the A-DR and C-DR.
- 2. Air Quality The impact of the 605 new dwellings will have a negative impact on the air quality in the Western portion of El Dorado County.
- 3. Soils The known asbestos content in the area will be disturb and have negative impact.
- 4. Water Even with EID and reclaimed irrigation water for landscape purposes, my well will be dramatically impacted on the water demands. No guarantee by the builder has been made to me that I will have EID access at no cost to my property. Also, the planned well to stock the planned ponds will have a negative impact on my existing

- water table and supply. The developer has no ability to guarantee that a negative impact would not occur.
- 5. Land Use Currently assessed for agricultural purposes, this will be non-existing in the future.
- 6. Noise- 605 new dwellings with traffic and overall noise pollution will increase the noise from current state.
- 7. Biological Impact Known protected species exist in the area and these will be negatively impacted by this development.
- 8. Crime with 605 new dwellings, it is a known fact that crime will increase due to increase in population.
- 9. Money While it is understood that the County of El Dorado elected officials' main attraction to this project is to increase County tax revenues, the same result could be achieved if the one dwelling per 5 acres density be kept in place and let the developer build on the 280 acres with one dwelling per 5 acres.

For these and other reasons, I oppose the new development. I recommend that the developer proceed with plans of one dwelling per 5 acres. Please consider my input as you make this decision.

Respectfully,

Jeff Tewksbury

From: Pierre Rivas < pierre.rivas@edcgov.us > Date: December 26, 2012, 11:45:14 AM PST

To: Eileen Crawford <eileen.crawford@edcgov.us>, Amy Paulsen <Amy.Paulsen@lsa-

assoc.com>

Subject: Fwd: NOP Comment on Dixon Ranch Subdivision

Hi Eileen and Amy - FYI.

Please see comments on the Dixon Ranch NOP. These comments focus on the traffic study for the project.

Thank you. Pierre

----- Forwarded message -----

From: **Bill Welty** < wmwelty@gmail.com > Date: Wed, Dec 26, 2012 at 10:23 AM

Subject: Re:

To: Pierre Rivas <pierre.rivas@edcgov.us>

Hey Pierre, thanks for your note.

Probably don't have to mention, re-mention, or say again, or plead:

DO AN HONEST CUMULATIVE TRAFFIC STUDY OF THE IMPACTS OF DIXON RANCH DEVELOPMENT ON GREEN VALLEY ROAD, SALMON FALLS ROAD, EL DORADO HILLS BLVD., CAMERON PARK DRIVE, CAMBRIDGE, BASS LAKE ROAD, FRANCISCO DRIVE, ALLEGHENY, MALCOLM DIXON, AND SILVA VALLEY. KEEPING IN MIND THE UPCOMING PROJECTS OF THE GV EQUESTRIAN CENTER, WILSON ESTATES AND THE WINN PROJECT (whatever that may be); and other projects yet on our radar.

Particularly the impacts on Silva Valley Road, once the Silva Valley Interechange is completed, Silva Valley WILL become the #1 route to/from HWY 50 of folks on living on or travelling to/from GVR, probably west of Cameron Park Drive. The Exchange will challenge the allowed traffic loads around the several schools on Silva Valley, elementary and high schools, where traffic is already congested during AM's, and PM's. And the road is narrow, with allowed roadside parking.

SO, DO AN HONEST TRAFFIC STUDY. DIXON RANCH WILL ADD 1000's OF NEW TRIPS TO THE AREA. FORTUNATELY, THE ACCESS TO SILVA VALLEY VIA LIMA WAY IN HIGHLAND HILLS WAS CLOSED (but permanently???). THAT'S THE *KIND OF THINKING* THAT SCARES THE HELL OUT OF US ABOUT THE

PLANNING BEING DONE AT COUNTY LEVEL. THAT ACCESS POINT SHOULD **NEVER** HAVE BEEN CONSIDERED.

PLEASE.....

Thanks Pierre....we're countin' on ya!

- Bill

On Wed, Dec 26, 2012 at 8:49 AM, Pierre Rivas < <u>pierre.rivas@edcgov.us</u>> wrote: Hi Bill,

Other than the two exhibits (Location Map and Conceptual Site Plan), there are no other attachments to the Notice of Preparation (NOP). The NOP section: "Potential Environmental Effects" is a list of those areas that may have a significant impact resulting from the project. The purpose of the NOP is to notify public regulatory agencies and interested persons that an EIR will be prepared and to solicit comments on specifics of the areas listed or any other areas that are not listed that should be covered in the EIR.

Please call me if you would like to discuss. I will be in the office today through Friday.

Thank you.

Pierre

On Mon, Dec 24, 2012 at 11:06 AM, Bill Welty < wmwelty@gmail.com > wrote: Hey Pirerre, regarding the Dixon Ranch NOP just announced.... I couldn't find attachments re: possible environmental impacts, as referenced in your announcement.

Could you give me the link?

--

Bill

From: Pierre Rivas
To: Amy Paulsen

Subject:Fwd: Holiday Traffic counters on EDH Blvd.Date:Wednesday, December 26, 2012 2:44:40 PM

Hi Amy - This comment pertains to Dixon Ranch. -Pierre

----- Forwarded message ------

From: Norman & Sue < arowett@pacbell.net>

Date: Wed, Dec 26, 2012 at 2:39 PM

Subject: Holiday Traffic counters on EDH Blvd. To: Eileen Crawford < eileen.crawford@edcgov.us>

Cc: Bill Welty <<u>wmwelty@gmail.com</u>>, John & Kelley <<u>bugginu@sbcglobal.net</u>>, John H <<u>hidahl@aol.com</u>>, "Hidahl, John W (Mission Systems)" <<u>John.Hidahl@ngc.com</u>>, <u>pierre.rivas@edcgov.us</u>, Rich Stewart <<u>rich_stewart@sbcglobal.net</u>>, Ron Mikulaco <<u>ron@gotmik.com</u>>, Tara Mccann <<u>mccannengineering@sbcglobal.net</u>>, Cheryl McDougal

<gvralliance@gmail.com>

Eileen

Hope you and your family had a great Christmas. It's so beautiful this time of year in El Dorado Hills.

I don't know if you are aware of this or not but yesterday (Christmas day) I was driving home on EDH Blvd. and I noticed that there were vehicle counters installed along the road way at several locations. I'm puzzle to why the County would be collecting traffic data on a holiday or a holiday week(s) when traffic is light. When I approached the intersection with Francisco dr. at approximately 3:30 PM there was no wait at the stop sign. Normally, when I go through this intersections at this time I'm in a 20 or more car string waiting to get through the intersection.

In my opinion, this is not the time to collect traffic count data. Schools are closed and many people leave town or are on vacation during this holiday period which reduces vehicle travel. As you know, the Dixon Ranch and other project are currently in the County development process and will have a major impact on the roads in EDH especially the GVC corridor. It is critical that we have the most accurate traffic data available to analyze the impacts of these projects on our roadway system.

I respectfully request that you review the collection of traffic data during this period and if possible re-schedule a new date for the collection when schools are open and there is normal daily traffic patterns.

Thanks

Norm Rowett

GVC subcommittee

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Pierre Rivas, Principal Planner Development Services Department El Dorado County 2850 Fairlane Court, Placerville, CA 95667 EMAIL: pierre.rivas@edcgov.us 530-621-5841 530-642-0508 FAX

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Thank you.

 From:
 Pierre Rivas

 To:
 Amy Paulsen

 Cc:
 Joel Korotkin

Subject: Fwd: Fw: Dixon Ranch NOP

Date: Thursday, January 10, 2013 9:26:25 AM

Hi Amy,

For your information, please see comments submitted by Tara Mccann.

Pierre

----- Forwarded message -----

From: **Char Tim** < <u>charlene.tim@edcgov.us</u>>

Date: Thu, Jan 10, 2013 at 7:48 AM Subject: Fwd: Fw: Dixon Ranch NOP

To: Roger Trout < roger.trout@edcgov.us >, Pierre Rivas < pierre.rivas@edcgov.us >

The text is addressed to BOS & Pierre, yet it appears I'm the only County staff that the email was sent to....wanted to forward this on to both of you.

----- Forwarded message -----

From: **Tara Mccann** < mccannengineering@sbcglobal.net>

Date: Wed, Jan 9, 2013 at 7:04 PM Subject: Fw: Dixon Ranch NOP

To: arowett@pacbell.net, "John W (IS) Hidahl" < John.Hidahl@ngc.com >, Jeff Haberman

<jeff.h@ix.netcom.com>, readysetgo@pacbell.net, Cheryl McDougal

<cheryl_mcdougal@yahoo.com>, GreenValley Community <gvralliance@gmail.com>, Bill

Welty < wmwelty@gmail.com >, Ellison Rumsey < aerumsey@sbcglobal.net >,

 $\frac{aliceklinger@earthlink.net,\ Assemblymember.huber@assembly.ca.gov,\ Dave\ and\ Susan\ Comstock < \underline{dandscomstock@comcast.net}>,\ Rich\ Stewart < \underline{rich_stewart@sbcglobal.net}>,$

charlene.tim@edcgov.us

El Dorado Board of Supervisors

Pierra Rivas, El Dorado County Principal Planner

RE: Proposed Dixon Ranch High Density Development request to change from Agriculture to High Density Residential Development Notice of Preparation

I am sending this email on behalf of concerned residents that have flooded my email box from the areas of El Dorado Hills Green Valley Alliance, Highland View Residents, Highland Hills Residents and Sterlingshire Residents with concerns that the County would send out this very critical Proposed Dixon

Ranch Project Notice of Preparation just before the holidays making the Dixon Ranch Notice of Preparation not available to the El Dorado Hills Area Planning Advisory Committee (APAC) until the offices opened Jan 4, 2013 and that so many effected people would not get a chance to look at it and make appropriate comments until the second week of Jan. giving a very short time period to be engaged and involved in the process. We don't feel the County intentionally wanted to shorten the comment period due to sending it out over the holiday as the County Board of Supervisors has always encouraged and welcomed feedback and involvement. There were a few people that commented on the NOP not showing up on the County web site on the date it was stated to be posted as may have been an over sight post holidays.

Additionally the NOP was date stamped Dec 14, 2012 with the El Dorado Hills CSD stamped December 21 but the El Dorado Hills Area Planning Advisory Committee (APAC) was not able to access the locked up building until Jan 5, 2013. I know the County Board of Supervisors has always encouraged engaged and involved constituents. We ask the County give the public adequate time to read and comment on this very important document that stands to have a significant impact on El Dorado Hills and the entire local transportation infrastructure. Due to other planning documents and an updated Traffic Impact Analysis needing to be prepared we are asking for the County to extend the comment period date a fair and reasonable 30 days to Feb 14, 2013 as this would give the Board the public feedback your looking for and allow for the vetting of the many critical issues that this project presents.

Thank You for your Public Service and Dedication,

Tara Mccann
El Dorado Hills

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Char Tim Clerk of the Planning Commission County of El Dorado **Development Services** (530) 621-5351

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Pierre Rivas, Principal Planner **Development Services Department** El Dorado County 2850 Fairlane Court, Placerville, CA 95667 EMAIL: pierre.rivas@edcgov.us

530-621-5841 530-642-0508 FAX

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Thank you.

From: Pierre Rivas
To: Amy Paulsen

Cc: <u>Joel Korotkin</u>; <u>Brian Allen</u>

Subject: Fwd: Dixon Ranch NOP Comments

Date: Tuesday, January 15, 2013 12:51:46 PM

Amy,

Please see comments from Charles Frey on the Dixon Ranch NOP.

Pierre

----- Forwarded message -----

From: Charles Frey < cffreymd@pacbell.net>

Date: Mon, Jan 14, 2013 at 9:09 PM

Subject:

To: pierre.rivas@edcgov.us

To Mr. Pierre Rivas, Principal Planner El Dorado County Development Services Department

Regarding Environmental Impact Report for the Dixon Ranch Residential Project request for comment sent 12-14- 2012.

My name is Charles F. Frey a resident and member of the Green Springs Ranch Landowner's Association and member of the Border Committee.

I know no one in our ranch who supports the General Plan Amendment Description as described in the December 14th 2012 notice, which permits up to 605 single family detached residential units as well as a clubhouse on 280 acres. The result would be a calamity in terms of traffic congestion on Green Valley road both in terms of access in and out of our homes at Deer Valley into Green Valley, and at the intersections at Silva, Eldorado Hills Blvd, and Franciso Drive, in one direction, and at the Middle School, Bass lake and Cameron Park Drive in the other direction.

I hope you are aware that with existing traffic patterns there are already long waits at the time of the morning and evening commute at the intersections at Silva, Eldorado Hills Blvd and Francisco Drive. At the beginning and ending of school there is prolonged congestion in both directions on Green Valley at the Middle School traffic light as well as on Bass Lake opposite the grade school. The school traffic at both schools occurs during the morning commute and is disruptive to both those trying to enter the schools, as well as those who are commuting. To add somewhere between 600-1200 vehicles to this mix on Green Valley

based on 605 dwellings coming and going from the Dixon ranch by residents, not to speak of the delivery and service vehicles which probably add another 600-1000 vehicles coming and going is mind boggling. The delays frustration and decline in quality of life will be truly calamitous to us who bought homes assuming the Dixon Ranch was zoned to not permit more than one home per five acres. To permit the Dixon ranch to be densely developed would be a breach of trust by our elected officials and an abrogation of the General Plan.

While it might seem expedient to our elected officials to obtain additional tax revenue from dense housing in the proposed development, it would come at an extremely high cost to the County in terms of the need for additional Public Services, such as law enforcement, fire protection and medical care for the occupants of the age restricted units. There would be a need for more class rooms or larger class size in the schools, as well as additional busing, expansion of roads far beyond the locale of this proposed development and more lights and intersections.

This high density housing proposal for the Dixon Ranch is totally unacceptable. The developer should stick with present zoning of one house per five acres.

Charles and Jane Frey

2351 East Green Springs Court

Rescue Ca 95672

530-677-8100

cffreymd@pacbell.net

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Pierre Rivas, Principal Planner Development Services Department El Dorado County 2850 Fairlane Court, Placerville, CA 95667 EMAIL: pierre.rivas@edcgov.us 530-621-5841 530-642-0508 FAX

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Thank you.

El Dorado County Development Service Department 2850 Fairlane Court Placerville, CA 95667 Attn: Mr. Pierre Rivas

27 December 2012

David and Susan Comstock 2809 Aberdeen Lane El Dorado Hills, CA 95762

Mr. Rivas:

This letter is in response to the Notice of Preparation for the Dixon Ranch Residential Project dated December 14, 2012 that was sent by the county to public agencies, interested organizations and individuals. As related to the proposed Dixon Ranch Residential Project, our concerns, comments, and questions are listed below.

1. WATER

There is an existing water tank that is used by the Highland View subdivision at the top of Aberdeen Lane on the corner of Lima Way. While it may be considered as a possible source of water for Dixon Ranch, any additional draw on this tank may cause an unacceptable drop in water pressure for the current users in Highland View.

When Highland View was under construction, the Fire Marshall required four houses near the top of Aberdeen Lane to have sprinkler systems installed because water pressure from the tank was too low to guarantee sufficient pressure to fight a house fire. Because we live in one of the four houses that was mandated to have fire sprinklers installed, we are concerned that allowing Dixon Ranch to use this water tank as a source of supply may lower water pressure to an unacceptable level that would endanger our lives and the lives of our neighbors in the event of a future house fire.

In order ensure the safety of the lives of Highland View residents, we are asking the county to not allow the water tank at the corner of Aberdeen Lane and Lima Way to be used as a water source for Dixon Ranch.

2. **ARCHEOLOGY** – Will there be an archeological review as part of the environmental impact study?

3. OAK TREES

Q1. Is Dixon Ranch planned to have any "affordable housing projects for lower income households, as defined pursuant to Section 50079.5 of the Health and Safety Code"?

- Q2. If the answer to question 1 above is yes, are there any county limitations on the number of oak trees that could be removed within the Dixon Ranch development?
- Q3. If the answer to question 1 above is no, we are concerned that sufficient space surrounding each replacement oak tree may not be sufficient to allow it to grow to its mature size without overlapping the land area needed for any contiguous oak trees. If replacement oak trees are planted on-site, how will oak tree mitigation be handled for Dixon Ranch in terms of the space needed for each oak tree that is replaced?
- Q4. Will Dixon Ranch oak tree mitigation involve any off-site planting of replacement oak trees?
- Q5. Which department within El Dorado County is responsible for ensuring the survival of replacement oak trees?
- 4. <u>DARK SKIES</u> The contiguous neighborhoods of Highland Hills, Sterlingshire and Highland View are all in close proximity to the proposed Dixon Ranch development and none of them have any streetlights. Also, there are no streetlights at Homestead Park which serves these neighborhoods. The Notice of Preparation from June 6th, 2012 stated that Dixon Ranch would have outdoor lighting at "major intersections and mid-block pedestrian crossings as appropriate and along the sag vertical drive where 'A' Drive crosses Green Springs Creek." We did not see street lighting specifically mentioned in the new NOP of December 14th but if the new NOP has no request for streetlights, we would be in favor of such a proposal. If street lights are proposed, in order to follow the intent of the Dark Skies policy, and to preserve the rural atmosphere of El Dorado County, we are asking that any street lighting for Dixon Ranch be limited to the minimum number of lights as recommended by the county in order to reach a reasonable compromise that will meet public safety and also minimize the amount of nighttime light pollution.
- 5. <u>SEWAGE LINES</u> We are asking the Board of Supervisors to require that any proposed sewage pump/lift stations for Dixon Ranch be located at least 100' from the eastern property lines of all houses in Highland View on the eastern side of Aberdeen Lane that border the proposed Dixon Ranch development.
- 6. **ENDAGERED SPECIES** Will the Environmental Impact Review include a risk assessment for any endangered species?
- 7. **TRAFFIC FLOW** As drawn in the new Notice of Proposal, Dixon Ranch will have two exits onto Green Valley Road and the development will not be connected to Highland View via Lima Way. Because of this change from the first NOP, we would like to thank Mr. Joel Korotkin for listening to our concerns about traffic safety as stated in our response to the June 6th Notice of Preparation. If the Dixon Ranch street plan is approved by the Board of Supervisors with no connection to Highland View, there will be no increase in traffic through Highland View and no increase in the risk of traffic deaths from potential Dixon Ranch traffic traversing the Highland View subdivision. Conversely, not connecting these two subdivisions will also reduce the risk of Dixon Ranch traffic deaths by preventing any Highland View residents from travelling through Dixon Ranch as a "shortcut" to get to Green Valley Road.

However, we are concerned that the fire marshal may oppose the plan as submitted and request a connection via Lima Way with a fire gate or possibly with unrestricted access. If such a connection were to be approved by the county, we believe that such unrestricted access would put the lives of Highland View residents at an unacceptable level of risk for traffic deaths.

Based on life experience and common sense, we believe that most people will normally take the shortest and most direct route to reach their destination in order to save time, gas, money and mileage on their vehicles. Because the greater Sacramento Metropolitan Service Area has more than 2,000,000 people, the vast majority of jobs are to the west of Dixon Ranch. This is also true for access to highways 50 and 80, shopping, Oak Ridge High School, most colleges, medical care, entertainment and the airport. If connected with unrestricted access, we believe that the majority of residents of Dixon Ranch would <u>not</u> drive in an easterly direction to reach Green Valley Road and then go west to get to a destination that is to the west of Dixon Ranch. If connected, we believe that a majority of Dixon Ranch residents would use Lima Way as the fastest, shortest and most economical route to get to their destinations which may be to the west of Dixon Ranch.

Because of the lower density of Highland View and the corresponding low traffic count in the Highland View subdivision, the county did not require any sidewalks to be installed when the Highland View subdivision was built. Highland View residents are and will always be required to walk in the street. Unfortunately, traffic deaths do occur on residential streets and while there have been no traffic deaths in the Highland View subdivision that we are aware of, there has been one traffic death in the adjoining Sterlingshire subdivision following a collision between a bicycle and a car. A thirteen year old boy was killed. If the county should require Dixon Ranch to be connected to Aberdeen Lane via Lima Way with unrestricted access, we expect the increase in traffic to potentially be a few thousand additional car trips per day on Aberdeen Lane. When viewed from the perspective of 365 days a year times ten years, this would result in millions of additional car trips on Aberdeen Lane.

Much of the Highland View subdivision is on a steep hillside. This is especially true for Aberdeen Lane which would have to be used by <u>every</u> vehicle entering or exiting Dixon Ranch on Lima Way if the two subdivisions were to be connected. During the winter, the Highland View subdivision receives snow about one to three times each year. When this happens, the roads become extremely hazardous due to ice and the steep gradients. We have had multiple accidents under these conditions when drivers can't stop as their vehicles slide downhill. Adding possibly thousands of additional car trips per day from Dixon Ranch during the winter will result in even more accidents and increase the potential for traffic deaths.

To the best of our knowledge, the southern portion of Aberdeen Lane has a slope of approximately 16° which exceeds the county maximum limit of 15° for residential streets. We presume that the Highland View subdivision had a waiver to this limit when it was approved but exacerbating the situation with a possible connection via Lima Way would greatly increase the risk of traffic accidents and deaths in Highland View. If connected with unrestricted access, we believe that a possible proposed alternative of painting stripes on the street to provide safety zones for people to walk in is not an acceptable solution. When cars are parked on the street,

people walking, people on skateboards and bicycle riders will usually go around the vehicle and thus be outside any safety zone and be at much greater risk of being struck and killed.

We would like to state for the record that we are very strongly opposed to connecting the Dixon Ranch and Highland View subdivisions on the basis of increased traffic and the increased risk for pedestrian deaths of both Highland View residents and future Dixon Ranch residents.

Lastly, in order to allow the large mature oak trees just east of Lima Way to remain undisturbed, we are asking the county to support the Dixon Ranch street plan as submitted in the NOP of December 14th, 2012, and to disapprove any new or future request for a road connection between Dixon Ranch and Highland View.



Thank you,			

David Comstock / Susan Comstock

From: <u>Pierre Rivas</u>
To: <u>Amy Paulsen</u>

Cc: <u>Joel Korotkin</u>; <u>Brian Allen</u>

Subject: Fwd: Comments for NOP#2 on an EIR for Dixon Ranch Residential Project

Date: Thursday, January 31, 2013 3:58:48 PM
Attachments: Dixon Ranch NOP Comments Jan 2013.pdf

Hi Amy,

Please see comments from Kitty Stewart on the Dixon Ranch NOP.

Pierre

----- Forwarded message -----

From: **Kitty Stewart** < <u>kitty_stewart@sbcglobal.net</u>>

Date: Thu, Jan 17, 2013 at 3:01 PM

Subject: Comments for NOP#2 on an EIR for Dixon Ranch Residential Project

To: pierre.rivas@edcgov.us

Cc: roger.trout@edcgov.us, rich.stewart@edcgov.us, bosone@edcgov.us

El Dorado County

Development Services Department

2850 Fairlane Court Placerville, CA 95667

Attn: Mr. Pierre Rivas, Principal Planner

Email: pierre.rivas@edcgov.us

Subject: Notice of Preparation of an Environmental Impact Report for the proposed Dixon Ranch Residential Project (File Nos. A11-0006, Z11-0008, PD11-0006, & TM11-1505)

Mr. Rivas:

I have provided my comments regarding the NOP #2 for the subject project below the signature line as well as in the attached PDF Document.

As the County and its citizens progress through the process of evaluating the proposed project, please remember to represent all citizens of the County, not just those who propose

projects. I understand that the owner of the property has a right to bring forward anything they want, but if the negative impacts on others are as significant as those of this project appear to be, the County has an obligation to those impacted to communicate to the applicant that the recommendation will be to deny the project as proposed.

Any benefits to all citizens of the County from development, such as property tax dollars and added revenue to local businesses, can be obtained from build out of other more appropriate areas of the El Dorado Hills region without any modifications to current Land Use and Zoning designations. Thus, any development of the project area above the 53 lots allowed under the current Land Use designation results in no net benefit and only very significant negative cumulative impacts that cannot be mitigated. It is my understanding that comments on the negative economic impacts and lack of meeting General Plan requirements will be made later during the process if it reaches that point; however, my expectation is that the negative environmental impacts will cause the project to "go back to the drawing board".

Sincerely,	
Kitty Stewar	-

Comments in regard to the Notice of Preparation of an Environmental Impact Report for the proposed Dixon Ranch Residential Project (File Nos. A11-0006, Z11-0008, PD11-0006, & TM11-1505) are as follows:

If the project or any alternative that is analyzed includes any type of connection to Lima Way or Aberdeen Lane, please be sure to address the comments listed below that are pertinent to that case.

Traffic:

Any new TIA needs to correct the deficiencies and errors listed below that apply to the original Traffic Impact Analysis (TIA).

The original TIA fails to take into account the unique geometry of the area and specific design of the proposed development. Generic factors, etc. are only good for

an order of magnitude estimate. The model Kimley-Horn used is a "macro" model. On page 32 of the TIA they even admit that "The site plan for the proposed project (Figure 2) was qualitatively reviewed for general access and on-site circulation." Thus, no quantitative analysis was performed for the site. I believe this also applies to the area incorporating the Highland View neighborhood.

The TIA did not model numerous roads and intersections including:

- roads through the Sterlingshire and Highland Hills neighborhoods
- intersections at EDH Blvd and: Governor Dr, Harvard Way, Olson Lane, and Wilson Blvd.
- the intersection at Harvard Way and Clermont Way
- roads and intersections within the proposed project

Modeling the above roads and intersections is key to obtaining the proper route vehicles will take to and from their destinations. Parameters such as distance, typical vehicle speed (appropriate for the time of day), intersection and traffic signal delay should all be used to calculate the route of preference. In addition, I have heard the project proponents say vehicles will avoid going uphill to get to their destination. First, if it is uphill on the way out, then it is down hill on the way back! Also, the topography of the proposed project site is a very gentle slope. A more significant psychological factor is the direction of their destination. For example, most people will not travel a half mile east to get to a destination that is 3 miles to the west—even if it might be 30 seconds faster. The route of preference for many drivers, not just the residents of the proposed DR project, will be different due to the location of the project and the fact that it changes the road network geometry.

The TIA analysis of trip distribution (routes used to determine where people go) is not accurate for the proposed project as it relies on all of the existing EDH neighborhoods and Cameron Park as its basis for the route preference. For example, people who live in the Francisco Drive area north of EDH Blvd. may travel a different route (such as through Folsom north) to Hwy 50 west bound or the Costco/Home Depot/Folsom Lake College area when compared to someone in the Highland View neighborhood who goes south on SVP to get to these same destinations. The proposed project would also provide a new route to Oak Ridge High School and Highway 50 through the Highland View neighborhood that did not previously exist (see next paragraph).

The TIA failed to address cut-through traffic from GVR in the vicinity of the project

and to the east. The shortest and quickest route to many common destinations will be through the proposed project and the Highland View neighborhood. There will also be cut-through traffic the other direction. This will add even more significant traffic to Highland View's narrow, steep, winding residential roads that don't have sidewalks.

The model also failed to include many common destinations residents of EDH travel including:

- Oak Ridge High School
- CSD pool/play fields/Teen Center
- Town Center (Target, Nugget Market, movie theaters, post office, etc.)
- Hwy 50 shopping in the Raley's area
- the EDH Business Park

I suspect that part of the reason they didn't model the local area in detail may be due to time and cost—but that is not an acceptable reason to ignore obtaining an accurate representation of the impact traffic will have on the community due to the proposed DR project, especially the Highland View neighborhood. This is a significant impact that can only be mitigated by not connecting to the Highland View neighborhood.

The year 2025+PP+mitigation shows very little delay at GVR/SVP for a left turn heading south on SVP as well as continuing straight. It is logical that adding that much traffic would cause a much longer delay and back-up on GVR. This is currently a pinch point and adding thousands of vehicles per day will only make it worse. No mitigations were proposed at this intersection. The mitigations at the next intersection to the west (EDH Blvd/GVR) will not help the left turn at GVR/SVP very much. If so, why hasn't the County already done these mitigations to solve the problem? The cost is small relative to the benefit.

Also, converting GVR to 4 lanes may not be a mitigation that is even possible. The county may not be able to secure the right-of-way from the project site to SVP. There is rumored to be a land owner who says they won't give up their land and apparently it is not subject to eminent domain because it is a Federal Land Grant(?) and there may not be room on the other side of GVR to move the road around it due to the topography.

I don't believe the TIA modeled signal timing. Without that, how do they really know the intersection delays? Did they use some efficiency factors and/or make assumptions that may or may not apply?

The EIR should point out these failures in the TIA and require that a model be developed that is specific to the proposed project and surrounding area to adequately assess these significant environmental impacts.

When considering the traffic impacts, please address how a 70+ percent increase in the traffic on Green Valley Road can be mitigated by simply adding a turn pocket and possibly changing signal timing (as alluded to in the previous TIA). This road is near or at level of service F. Between approved, pending, and proposed projects the ADT will increase by about 8,000 to 9,000 trips with the Dixon Ranch project contributing around 5,000 of the additional trips. Common sense dictates that the road would need additional lanes to carry this much additional traffic. Green Valley Road has become the Highway 50 of the northern section of the most densely populated portion of the county. This concern needs significant attention. Be sure to address the existence of right-of-way for additional lanes as well as areas where eminent domain cannot be used to obtain needed right-of-way to add additional lanes between Bass Lake Road and just west of El Dorado Hills Boulevard.

Traffic Safety:

There are no sidewalks in the Highland View neighborhood. The streets are narrow and cars park along the sides. There are many blind curves with steep grades. A significant increase in traffic will make walking the streets extremely unsafe for children and adults alike. It will be difficult to back out of one's driveway. The high volume of traffic created by the proposed project will be extremely unsafe.

The County's own design standard (101B) is not even met by the current design of the Highland View roads. They are 5 feet narrower, exceed the 15% grade on the south side of Aberdeen Lane, have no sidewalks as required, and are right at the 2000 ADT. Adding <u>any</u> traffic to these streets makes the roads further out of compliance with the safety design standard as the design speed would be 35 mph, street width needs to be 15 feet wider, and the maximum grade is 12%. In addition, the likely additional volume will exceed 3000 trips per day and cause the safety standards to be even further violated where the design speed would be 40 mph, street width needing to be 20 to 30 feet wider, and the maximum grade of 10%.

The County also has a draft road design standard (August 2011) that would put an additional and necessary safety constraint of no residential frontage on streets over 2500 ADT. This safety standard would again be violated.

Please evaluate these very serious safety impacts of the proposed project design.

School System:

The additional students will create crowded classrooms and detract from student learning. Please address this impact.

Crime:

Having an additional point of access to the Highland View neighborhood in the Aberdeen Lane loop area will increase crime in the neighborhood. Right now, it is difficult for criminals to get in and out of the neighborhood. Having another road or any type of connector to Highland View will make it much easier to commit crimes and quickly escape. Please evaluate this impact.

Noise:

Traffic creates significant noise especially at the speeds typically traveled down the south side of Aberdeen Lane. In addition, loud delivery trucks will use Aberdeen Lane as the shortest route to the proposed development. This disrupts the enjoyment of one's yard as well as disrupting one's sleep when the windows are open in the summer time. Disrupted sleep is known to create health problems and add to stress levels. Please evaluate these impacts.

Water Runoff:

Please assess the impact of additional chemicals that will flow to the creeks and eventually to Folsom Lake through New York Creek. Please include herbicides, pesticides, fertilizers, soaps, detergents, and automobile chemicals (leaking motor oil, coolant, etc.). Please address the impact this will have on the water supply that is

pumped just downstream from the New York Creek inlet in Folsom Lake. Please include the effect of nitrogen-containing fertilizers and detergents on algae and aquatic plant growth in the streams and in the lake. Please address the additional flow rate effects/year round flow caused by landscape irrigation, etc. Please include the longer breeding season this creates for mosquitoes and other insects and the diseases they carry.

Please address the sediment in runoff created from the tremendous amount of grading required for development, including the asbestos and other pollutants present in the drainage effluents.

Water Availability:

Although EID may be able to supply the water for the proposed project at this time, please address the impact the water demanded by the proposed project will have on the build-out of EI Dorado County and other projects in the future that demand water —especially in drought years where we are already asked to cut way back on water usage. The significant additional water usage in the proposed project area will cause others served by EID to have to make sacrifices they would otherwise not have to make. Other land owners will have their development rights restricted because of the lack of availability of water in the future. This project has over 550 additional homes above what the land use designation would allow. This will result in the project taking more than their fair share of the limited water supply in the county. Please address these impacts.

Depletion of ground water:

Please evaluate the impact of the significant area of asphalt, home footprints, and impenetrable surfaces on the recharge of the ground water. Also, please evaluate the impact this will have on surrounding land owners who rely on well water for irrigation and/or domestic water supply. Please supply calculations for the resulting loss of ground water with all assumptions made regarding annual rainfall, the rate of seepage, the depth and thickness of the aquifer, permeability (vertical and horizontal), and direction of flow for the water that would normally supply the aquifer from the project area.

Wastewater

The increased volume and pressure of wastewater could cause back-ups and/or leaks in the system resulting in property and environmental damage. The steep hill for the flow path could cause too high of a pressure in the system. The "backflow" preventers typically installed at the outlet of each residence at the bottom of the hill are not designed for high pressures that may result from the project. Please evaluate these impacts. Also, please identify any modifications needed for all current homes to prevent damage from backflow.

Air Pollution:

Please review the added health risk of thousands of additional vehicles per day traveling our roads. It is a well documented fact that homes situated close to busy roads cause health problems for the residents. Homes on Aberdeen Lane are much closer to the roadway than a typical street that has 7000 vehicles per day traveling on it. Having thousands of additional vehicle trips per day in close proximity to residences will pose a serious public health hazard. Many homes are close to the road on Green Valley Road as well.

Please address the impact of airborne asbestos created by the tremendous amount of grading required for the proposed project. Please address both the asbestos dust from grading as well as the asbestos that is moved to the surface and present in dry form after the surface runoff from rain or watering for dust control dries out. This thin layer of dry asbestos is easily transported in the wind. Also, please address affects the asbestos has on aquatic life for the asbestos that will be carried into the streams and lake.

Wildlife:

The density of homes and the road network will cut off the movement and migration of wildlife between the Serrano open space and the rural areas to the east and north of the proposed development. It will also cause substantial injury to wildlife and their habitat. The land is part of a known mountain lion range. There are coyotes, turkeys, bobcats, deer, foxes, owls, raccoons, rodents, and numerous species of hawks. Please address this impact.

Project Alternatives:

Please compare to the no-project alternative

Please compare to 53 parcels of 5 acres each in a rural subdivision (comparable to the surrounding parcels). This is the allowed land use for the project area in the General Plan.

Cumulative Impacts:

Please add the category "Cumulative Impacts" as it was left off the list of areas to include.

Also, please address the impact this project will have if all other undeveloped areas within 10 miles of the proposed project that have a similar land use designation, Low Density Residential (1 D.U./5 ac.) or Rural Residential (1 D.U./10 ac.), were also developed at over 10 times the designated land use density (as is being requested by this project). Please be sure to address the impact on air quality, county services, roadways, safety, schools, transportation, water availability, and wildlife. This addresses the fairness issue that other land owners could raise if this project is approved and they demand equal treatment by the County for subdividing their parcels outside of the current land use designation.

Comments to Incorporate by Reference:

The most significant change in the proposed project when compared to the previous project proposal is the apparent removal of a street connection to Lima Way and Aberdeen Lane. As long as that change stands and a street connection does not become one of the project alternatives or part of the preferred project, then comments specific to a street connection may no longer be relevant. However, despite information released as part of this NOP showing no connection of any type to Highland View, it is my understanding that the proposed project contains a somewhat tortuous, paved route that connects to Highland View for emergency access only. There is a risk that, at some date in the future, the connection could be changed to a street. Thus, I believe that the proposed project must be evaluated for such a street connection and all comments made previously are essentially still valid. To ensure such a connection is never made, the lots on the west side of the project could be designed so as to share a common property line with the Highland View lots in the vicinity of Lima Way.

So, although some positive changes have been made to the proposed project, from an environmental evaluation standpoint it is essentially the same as the previous proposal.

Since many people from the public who commented on the first NOP for this project may be unaware of a new NOP due to the timing of the release during the holiday period and to protect the interest of all parties, I hereby include all previous comments that were made by everyone and the entire administrative record for the project before, during, and after the first NOP and draft EIR process as part of my comments by reference here. Please be sure to evaluate all comments made previously on the original Dixon Ranch proposal and use the entire administrative record for environmental review of the current proposal. The comments and record are still valid despite minor changes in the number and types of homes and the layout.

Also, it has been said that the traffic on Green Valley Road will be approximately the same as the prior project. If a new TIA amounts to essentially stating that the previous TIA is still valid for traffic traveling Green Valley Road, then all comments made regarding Green Valley Road and connecting roads for the previous TIA still hold true.

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Pierre Rivas, Principal Planner Development Services Department El Dorado County 2850 Fairlane Court, Placerville, CA 95667 EMAIL: pierre.rivas@edcgov.us 530-621-5841 530-642-0508 FAX

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Thank you.

George W. Kucera 2425 Clarksville Road Rescue, CA 95672 January 17, 2013 gkucera@hotmail.com

Pierre Rivas
El Dorado County
Development Services Department
2850 Fairlane Court
Placerville, CA 95667

Dear Mr. Rivas:

I am writing in regard to the proposed Dixon Ranch project near my property in Rescue and the impact it will have on the environment in this area.

My concerns are many and all of them may not be relevant to the environmental study.

Additional Traffic: Green Valley Road is already busy with many people turning left across the intersection into driveways and small roads. The impact on the traffic congestion will be considerable. With accidents already all too common, this situation will certainly worsen. In addition, many cyclists travel up and down Green Valley road and they will be put into additional danger as even more cars will be entering, exiting and travelling on the road, changing speeds more frequently, and maneuvering, often into the bike lane, to avoid having to wait for people wanting to turn across the road. The lights where Green Valley Road meets Silva Valley Parkway and El Dorado Hills are already busy, especially during the commute times, and traffic will be increased immensely given that almost all shopping, gas, and other errands will occur in Folsom & El Dorado Hills. The stop sign at Jackson School and El Dorado Hills Blvd is almost gridlock from 8:00 – 9:00 AM on weekdays. Where are these people (if not all retired people, try not to laugh) going to work? Not in Folsom is my guess...most will be heading to the freeway via GVR and EDH Blvd.

Air Quality: In addition to the obvious increase in pollution in the area caused by the increased automobile traffic, the high density housing project will be vastly increasing the house emissions per acre in Rescue. As it is, the air quality is concern in the Rescue area and we have low density housing now. I don't know what the housing density is in rescue, but I would imagine it is one per 3-4 acres currently. The fireplaces, stoves and other appliances that will be at these locations will certainly exacerbate this problem in the area. Irrespective of the gross invasion of air quality this imposes on everyone in the community, the result of this will likely mean more "Save the air" days and/or other new restrictions that will burden not just the new homeowners, but all others, most of whom have a lot of open space around their homes.

Pierre Rivas January 17, 2013 Page 2

Water Quality: It is silly to believe that by managing the "sewage" and waste water captured by the plumbing of the houses & streets fully addresses the burden put on the environment by such high density housing. Any homeowner can tell you that there is irrigation, fertilization, weed control, spills and leaks of all sorts of liquids from the homes and motor vehicles, all of which will leech directly into the wetlands area and pollute the waterway it empties into. When someone has 5 acres, their property buffers this and the burden is mostly that of the homeowner. With this community, the burden will mostly be shifted to those nearby and downstream of the project.

Local Wildlife: All of the above factors will impact the local wildlife, and any housing in that location would have an impact. However, given the urban development nature of this project we can expect a far greater impact on the many animals that habitat the area. Instead of being able to co-exist with humans, there is virtually no open space in the project that animals can be supported on.

Specific changes: The latest proposal is worse in many ways than the first one, which was already urban density, not rural. The "undeveloped" space has been reduced to comical levels. Any objective observer can't help but note that there is something fishy about this kind of project even being considered at that this stage as it is an obvious distortion of the community standards by politicians. Things like 'Senior Development' put in specifically to jig the "trip calculation" numbers and push the burden of the overcrowded roads onto others. This is highly unethical. That aside, if this is going to be sold to seniors (prima facie highly dubious), then shouldn't the road requirements be more stringent given their weakened driving skills?

Anyone should be able to develop their property. However, this project smells like a politically greased boundoggle given both the rampant transgression of community standards and burden (externalities) that would be foisted on the surrounding communities.

Sincerely,

George W. Kucera

cc:

Planning Services, **planning@edcgov.us**Char Tim, Clerk of the Planning Commission, **charlene.tim@edcgov.us**Ron Mikulaco, District 1 Supervisor, **bosone@edcgov.us**

From: <u>Pierre Rivas</u>
To: <u>Amy Paulsen</u>

Cc: <u>Joel Korotkin</u>; <u>Brian Allen</u>

Subject: Fwd: Revised Dixon Ranch Project NOP

Date: Thursday, January 31, 2013 4:40:18 PM

Hi Amy,

Please see comments on the Dixon Ranch NOP from Ray Peterson.

Pierre

----- Forwarded message -----

From: **Ray Peterson** < <u>hogback1@sbcglobal.net</u>>

Date: Wed, Jan 16, 2013 at 9:37 PM

Subject: Revised Dixon Ranch Project NOP

To: pierre.rivas@edcgov.us

We have review the resubmitted NOP for Dixon Ranch. We originally wrote to you 7/2/2012. A copy of that follows as well as current comment.

Although the project now proposed less homes, there are still too many. The traffic is still a concern as all traffic will be using Green Valley Rd. It is hard enough already to leave and enter Deer Valley Rd as well as other cross streets between El Dorado Hills Blvd. at certain times of day. This increase in residences will just make traffic worse.

There are fewer homes proposed, however it appears there is now no open space between some properties and Green Springs Ranch properties. This density in housing does not belong adjacent to rural properties.

(Following is our original letter)

We are residents of Green Springs Ranch and are extremely concerned about the request to rezone property for the Dixon Ranch planned development. Most of us moved here for the rural atmosphere and the rural low density properties around us. Our concerns are as follows:

Traffic: The increase in traffic will affect all surrounding property owners. Right and left turn lanes will not reduce traffic. We will still have many more vehicles on the road. Did the Traffic Impact Analysis also take into consideration the proposed equestrian center on Deer Valley and Green Valley Roads? The intersection is already bad and an eastbound right turn lane onto Deer Valley Rd will not change the wait time nor improve safety for those waiting to make a left turn onto Green Valley Rd from Deer Valley Rd. It will not reduce wait time nor help prevent accidents for those waiting to make an eastbound or westbound left turn onto Deer Valley Rd.

The analysis also indicates El Dorado Hills Blvd. is 3 lanes in each direction north of Hwy 50. That is correct for just over 1000 feet. It then reduces to 2 lanes and then after another 2 miles it is reduced to 1 lane. It is 4 miles from the freeway to Green Valley Rd. If most of the traffic from the proposed project is directed to Green Valley Rd then a good portion will be using EDH Blvd. which is one lane at that point. We have seen no evidence of a new

right turn lane on EDH Blvd onto Francisco that was slated (according to the May 2012 traffic analysis) for spring of 2012. If the rezoning is based on mitigated road improvements the county has planned, it will be a long time in coming. That brings up- who pays? The analysis says the developer should contribute its proportioned share. Who determines and how is their share determined. If this goes through the developer should be required to contribute their share. That money should be set aside in an escrow account before building permits can be issued.

Noise: Some bordering the subdivision will have as many as 8 homes in their back or side yards. The noise from those residences not to mention noise from the new streets to those homes will increase. Noise from the soccer field is also a concern. The NOP indicates the field will not be lighted. It should be required to stay unlit.

Water: The NOP indicated the residences would be supplied water from EID. There is also mention of a possible new well to replenish the ponds during summer. What about the open spaces and park area? If new wells are drilled for irrigating those areas what effect will this have on neighboring wells?

Aesthetics: The homes next to the proposed project will have new views. Instead of seeing natural land and someday maybe one residence they will be looking at fencing, maybe a sound wall, and a lot of backyards. What is aesthetic about that?

High density housing should be closer to freeways, shopping and public transportation. It does not belong where those residents must pass through rural and less dense housing to get to the previously mentioned destinations.

Ray and Betty Peterson 1884 Carl Rd. Rescue, CA 95672

cc Ron Mikulaco

--

Pierre Rivas, Principal Planner
Development Services Department
El Dorado County
2850 Fairlane Court, Placerville, CA 95667
EMAIL: pierre.rivas@edcgov.us
530-621-5841 530-642-0508 FAX

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Thank you.

From: Pierre Rivas
To: Amy Paulsen

Cc: <u>Joel Korotkin; Brian Allen</u>

Subject: Fwd: Proposed Dixon Ranch High Density Development - NOP

Date: Thursday, January 31, 2013 4:47:42 PM

Hi Amy,

Please see comments from Cheryl McDougal on the Dixon Ranch NOP.

Pierre

----- Forwarded message -----

From: Cheryl McDougal < gvralliance@gmail.com>

Date: Wed, Jan 16, 2013 at 11:21 AM

Subject: Proposed Dixon Ranch High Density Development - NOP

To: pierre.rivas@edcgov.us

Cc: roger.trout@edcgov.us, bosone@edcgov.us

Mr. Rivas,

This email communication is being sent on behalf of concerned residents that are represented by the Green Valley Community Alliance which represents 300+ individuals. Due to the thirty-day timeframe for response to the Dixon Ranch NOP of which was over a very significant holiday season (Hanukah, Christmas, New Years), we are requesting a 30-day extension to enable us to have the time required to review and submit our comments to the County. This is in concurrence with the El Dorado County Board of Supervisor's past reassurance of their commitment to us that we have the opportunity to be engaged and involved in land planning initiatives. This would allow us to provide you with the public's feedback and support the appropriate vetting of concerns raised.

Thank you,

Cheryl McDougal send on behalf of the Green Valley Community Alliance

--

Pierre Rivas, Principal Planner
Development Services Department
El Dorado County
2850 Fairlane Court, Placerville, CA 95667
EMAIL: pierre.rivas@edcgov.us

EMAIL: <u>pierre.rivas@edcgov.us</u> 530-621-5841 530-642-0508 FAX

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mail and delete the material from your system. Thank you.

Mr. Pierre Rivas El Dorado County Planning Services 2850 Fairlane Court Placerville, CA 95667

RE: **Dixon Ranch NOP** (A11-2006, Z11-0008, PD11-0006, & TM11-1505)

Dear Mr. Rivas:

We feel very strongly that the density of the proposed Dixon Ranch project, revised to 605 units, is still well beyond what is reasonable for the subject property.

- **a**. There is no secondary collector road access: Green Valley Road will be required to accommodate 100% of the proposed project traffic, but is not designed to do so. The cost to add the lanes that *should* be required is well beyond what the county or any developer is willing to pay for, and we are concerned about a "this is good enough" attitude.
- **b**. The negative impact on the local riparian, grassland and woodland habitat will be significant. While the county has typically favored development over natural resources, the issue is larger than saving a few trees and frogs. We moved here for the rural environment, and hope the county will acknowledge and respect the needs of the local citizenry.
- **c**. The density for the proposed site is not anywhere close to that of the adjacent developments of East Green Springs, West Green Springs, and Highland Hills, as required by the El Dorado Hills Salmon Falls Area Plan (*Policies*, *A*.2.*c*, *pg5*).
- **d**. The buffer space between the proposed residential parcels and the existing rural residential development has actually been reduced in this latest proposal, as has the overall 'undeveloped' area.

The specifics of our concerns regarding traffic, wildlife and water, included in our letter for the original proposal, are still applicable and are included here as an attachment. Additionally, a portion of the project has been changed to a 'Senior Development' in order to reduce the traffic analysis 'trip' calculation. While a California Drivers License does not differentiate the age of drivers, a development geared to seniors should have access roads which are amenable to drivers with slower reflexes. Fast moving traffic on a curvy two lane road with an abundance of horse trailers and commercial service vehicles does not seem compatible with the typical senior driver, and should be taken into account for this review.

Please understand that we don't object to the development of this property. What we object to is the proposed density, and hope that the professional input obtained for the EIR will adequately address the possible impacts this project will have on our area.

Sincerely,

Ellen and Don Van Dyke Green Springs Ranch residents

Attachment: Dixon Ranch NOP letter dated 7.5.12

cc: Planning Services, planning@edcgov.us
Char Tim, Clerk of the Planning Commission, charlene.tim@edcgov.us
Ron Mikulaco, District 1 Supervisor, bosone@edcgov.us

Jan. 16, 2013

Curtis M. Leipold and Susan M. McClurg 1871 Carl Road Rescue, CA 95672 Green Springs Ranch

Pierre Rivas, Principal Planner Development Services Department El Dorado County 2850 Fairlane Court Placerville, CA 95667 Email: Pierre.rivas@edcgov.us

Re. NOP of an Environmental Impact Report for the Dixon Ranch Residential Project (File Nos. A11-0006, Z11-0008, Z11-0008, PD11-0006, & TM11-1505)

Dear Mr. Rivas,

We have reviewed the Dec. 14, 2012, Notice of Preparation (NOP) for the Dixon Ranch Residential Project. As we previously wrote concerning the June 6, 2012, NOP, we have serious concerns about this project. We live in Green Springs Ranch in Rescue adjacent to this property and believe the Dixon Ranch area should remain as zoned – Low Density Residential (LDR) to complement the rural neighborhood.

As stated in the Dec. 14 NOP, the applicant has reduced the number of proposed homes from 709 to 605. Despite this reduction in the number of units, the proposal still consists of too many homes for this area given the traffic impacts on Green Valley Road, especially at the intersections of Malcom Dixon Road and Deer Valley Road. We note that the previously proposed secondary exit to Silva Valley Parkway in the June 6, 2012 NOP has been eliminated. We do not think reducing the number of homes by 104 will significantly reduce traffic on Green Valley Road – especially since the secondary exit at Highland View has been eliminated.

The Green Valley Road/Deer Valley Road intersection where Green Springs Ranch is located already has an issue with traffic congestion and safety. New homes have recently been approved in the Green Valley Road/Malcom Dixon Road area while construction is pending on new homes adjacent to Green Valley Road across the street from Pleasant Valley Middle School. These new developments, along with a current proposal to develop an equestrian center at Green Valley Road and Deer Valley Road just east of the entrance to Green Springs Ranch, already will increase traffic on Green Valley Road.

The May 9, 2012, Dixon Ranch Traffic Impact Analysis prepared by Kimley-Horn and Associates said that the Dixon Ranch project would "significantly worsen conditions at multiple study intersections" along Green Valley Road. Although that report said that these impacts "can be mitigated to less than significant" if numerous road improvements are made we do not agree. We

believe this revised project will still generate too much traffic on Green Valley Road to be mitigated by these limited road improvements – especially now that the alternate Highland View Lima Way entrance/exit to Dixon Ranch has been eliminated. We also remain concerned whether the improvements to the intersection as identified in the May 9, 2012 Traffic Impact Analysis will actually be constructed. Has funding been secured? Is there a timeline for these improvements? If so, how does it mesh with the build-out development timeline of the Dixon Ranch project? The residents of Green Springs Ranch have been told for several years now that a dedicated left/right turn access will be built at Green Valley Road at Deer Valley Road. This turn lane has still not been constructed even as additional homes have been approved in the area.

The Traffic Impact Analysis that analyzed the June 6, 2012 Dixon Ranch proposal stated that the initial phase of the project would result in "2,226 total new daily trips" with "170 new trips occurring during the AM peak-hour" and "248 new trips occurring during the PM peak-hour." At full build out, the Traffic Impact Analysis projected that there will be "6,964 total new daily trips" from the Dixon Ranch Project with "541 new AM peak-hour trips and 748 new PM peak-hour trips."

We believed that was an underestimate. Even though portions of the Dixon Ranch proposal are now identified as age-restricted, i.e. for senior citizens, a great number of residents in the El Dorado Hills area are commuters and traffic already is congested during these hours on Green Valley Road. In addition, the families that choose to live in Dixon Ranch that have school-age children will now be forced to use Green Valley Road for their entrance/exit point since it will be the only access to the area. Thus, ALL of the new traffic from this development will be funneled onto Green Valley Road near Malcom Dixon Road.

In conclusion we remain opposed to the request to change the zoning of the Dixon Ranch project from LDR to High Density Residential (HDR). This is not a good location for HDR given the rural nature of the surrounding properties and the traffic impacts on Green Valley Road.

Sincerely,

Curtis M. Leipold and Susan M. McClurg

July 5, 2012

Mr. Pierre Rivas El Dorado County Development Services 2850 Fairlane Court Placerville, CA 95667

RE: Dixon Ranch (A11-0006, Z11-0008, PD11-0006, & TM11-1505) NOP Feedback for Environmental Impact Report

Dear Mr. Rivas:

The proposed rezoning and high density development of the Dixon Ranch project is in no way compatible with the rural nature of the Green Valley Road corridor. We are happy the county is doing an EIR, and are anxious to have our concerns addressed.

Traffic

From El Dorado Hills to Placerville, Green Valley Road is lined with 10 and 20 acre parcels, and small rural side roads. It was never intended to accommodate the kind of traffic generated by the rezoning of these rural parcels into High Density Residential housing and Commercial uses. The Traffic Impact Analysis for Dixon Ranch does not fully address the level of traffic proposed. Some additional concerns are as follows:

- According to the traffic analysis, Green Valley Road currently services 15,000 vehicles per day. The increase due to this project alone is an additional 7,000 trips daily, or a nearly 50 percent volume increase. And yet, no widening or lanes are proposed to be added in the east-west direction.
- Residents of Green Springs Ranch have been waiting for years for improvements at the ranch entrance, where the left turn from Green Valley Road onto Deer Valley Road has been a source of major accidents. No mention of this has been included in the traffic study.
- The intersection at West Green Springs Road with Green Valley Road has not been reviewed, nor have any changes there been proposed. There is approximately 50 feet of separation between the West Green Springs turn and Malcolm Dixon Road. These two roads are typical of the small rural side roads and driveways all along Green Valley that have no turning lane and are already hazardous even at the current level of traffic, but are invisible in this traffic study. In fact, there are 27 of these access ways off of Green Valley Road that are within the study area. Factor in the traffic from the 709 homes of Dixon Ranch, not to mention the approved Silver Springs development of 244 homes, and the risk is greatly increased.
- Where Silva Valley Road, El Dorado Hills Blvd., and Francisco Blvd, each cross Green Valley Road, there are no mitigating changes proposed for widening or adding lanes in the east-west direction. Each of these intersections is currently terrible to try to pass through in the westbound direction at peak hours. Adding flares and turn lanes in the north-south direction will not significantly relieve the traffic congestion caused by cars from 7,000 east-west trips added onto Green Valley Road.
- The middle school East of the project on Green Valley Road has not been discussed at all. The traffic on Green Valley Road at start/stop times for the school is already heavy and something to be avoided, but this intersection does not appear to have been reviewed. Again, add 1,000 households and their associated car trips into the equation, and see what happens to the Level of Service evaluation at this point on Green Valley Road.

• The proposed addition of a soccer park as part of the Dixon project, will create a large influx of traffic when the park is emptying or filling for a game or event. This has not been discussed in the impact analysis.

Note that even with mitigation measures in place, the intersection of Green Valley Road and El Dorado Hills Blvd. will be operating at Level of Service 'E' at peak hours. This should be unacceptable, but is not noted as such in the traffic analysis. The width of Green Valley Road is simply substandard to accommodate the Dixon Ranch project as a High Density Residential project. Note that page 29 of the traffic analysis points out that the widening of Green Valley Road from Salmon Falls Road to Deer Valley Road is identified as a future project, but that it is noted as not currently funded through fiscal year 2019.

Finally, there is no discussion of bike traffic on Green Valley Road. Bicycles on Green Valley Road are currently a hazard to motorists as well as themselves when they don't stay within the bike lane or road shoulder, which is common. Shouldn't a dividing curb be required with the increased vehicular traffic? Cyclists will use Green Valley Road as long as there is a shoulder to ride on. They should be accommodated for the safety of all of us.

Wildlife

Figure three of the NOP shows the perimeter of the Dixon Ranch project to be lined with high density housing and paved roadway. The interior "open space" is not accessible or amenable to wildlife, and essentially makes the project a 280 acre black hole replacing both habitat and migration pathways. Looking at Figure one, it is easy to visualize the blockade created for migrating wildlife with Green Valley Road becoming increasingly impassable due to development of high density projects in this corridor.

Water

Green Springs Ranch residents utilize well water. Dixon Ranch plans call for maintaining the level of the two ponds at Green Springs Creek throughout the dry season. This could affect the water level for users in Green Springs Ranch. The installation of ponds in Serrano coincided with the drying up of many wells on that side of the Ranch. The hydrology reports of the EIR will hopefully discuss any impact the Dixon Ranch development may potentially have on our only water source.

The Dixon Ranch Project is surrounded by low density rural development. Although the county may be pressured to provide low cost housing and high density development, as the developer has said, this is not the best location to accomplish that. The roads and surrounding rural development, not to mention wildlife habitat and tree cover, make this a most inappropriate location for this development model. A significantly lower density project would be met with much less objection, and even welcomed by some residents. We urge the county planners to keep this in mind when reviewing the results of the EIR.

Sincerely,

Ellen & Don Van Dyke Green Springs Ranch Residents

cc: Planning Services, planning@edcgov.us
Char Tim, Clerk of the Planning Commission, charlene.tim@edcgov.us

1880 Green Valley Rd El Dorado Hills, CA 95762 January 12, 2013

Mr. Pierre Rivas Principal Planner El Dorado County Development Services Dept 2850 Fairlane Court Placerville, CA 95667

Dear Mr. Rivas:

Ref: Parcel #126-150-20-100

In response to your updated Notice of Preparation of an Environmental Impact Report, dated 12/14/2012, I am still waiting for a response from you regarding my concerns on the Dixon Ranch Residential Project from June 2012. In my letter to you on June 11, 2012, I stated that I was concerned with the amount of homes being built so close to my property. I therefore would like the following:

Hook up to EID water due to the potential contamination to my drinking water from the runoff of 605 units

Signal light access on Green Valley Road so I can safely enter and exit my property Sound Wall for increase in street noise

Please present my concerns during the scoping period and I would like a response to my concerns by February 28, 2013, or I will seek legal counsel.

Thank you.

Sincerely,

Thomas Ratto



PUBLIC SCOPING MEETING RECEIVED **COMMENT FORM**

JAN 17 2013

EL DORADO COUNTY BUILDING DEPARTMENT

NAME: Tenley Martinez	ORGANIZATION: Ranch Landowner's Association				
ADDRESS: 2021 Marden Drive	(IF APPLICABLE) PHONE: (530) 306-8427				
	110NE: (550) 306-8427				
- 105cut, CA 95612	EMAIL: tenleymartinez agmail.com				
What impacts, mitigation measures and pro- considered in the environ	mental impact rangets				
TO THE DUDGER has	1100 - 1				
of the home of 2021 Ma	ide Di resident				
for 28 years I have seen	ruen Drive Rescue CA				
Please consider belong of	n the Dixon Ranch property				
the s	n the Dixon Ranch property following issues in the EIR				
Bidosical D					
Biological Resources - Pr road and culverts cons	oposed construction of				
Execution culverts cros	sing Green Springs Creek				
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
10100 1000 15	a tenassata is				
accelerating cars and	saugolina li receptorise				
-6 WILLIAM Water and	how will it be affected?				
all pollution from land scaped lot	La Pesticiaes Witter				
THE DIVINOTE EN FRACE					
PLEASE RETURN THIS FORM TO LSA ASSOCIATES, INC. STAFF					
Submit your comments by 5:00 p.m. Pierre Rivas, Princip					
Development Service 2850 Fairlane	Department				
Placerville, CA Email: pierre.rivas@	95667				



NAME: Tenley Martinez ORGANIZATION: Runol Member of Green Springs
ADDRESS: 2021 May 1 The Applicable
Rescue, CA 95672 EMAIL: tenley martinez @ gmail-con
What impacts, mitigation measures and project alternatives do YOU think should be considered in the environmental impact report?
The address half read a
Which recommends "now net loss of wetlands"
The child a part of a restless
The state of the s
baseline populations classic last to establish
- INCUDIT INC. GEODIC
tow will the culverts impact water flow/coggine
collection of debris coming down the creek need to be done dispining property? Studies
the delie dufing the told
and documented before any road can be
proposed for construction!
• PLEASE DETUDA TIME
PLEASE RETURN THIS FORM TO LSA ASSOCIATES, INC. STAFF OR Submit your comments by 5:00 p.m. on Thursday Jan. 17, Jun. 3 to: Pierre Rivas, Principal Planner Development Service Department

2850 Fairlane Court
Placerville, CA 95667
Email: pierre rivas@edcaco



	Weinber,
NAME: Tenley Martinez ORGANIZATION: Green Springs Planch ADDRESS: 2021 Marden Drive PHONE: (530) 306-8427 Rescue, CA 95672 EMAIL: tenleymartinez@gmail.	Landoune's Assixiation
What impacts, mitigation measures and	
What impacts, mitigation measures and project alternatives do YOU think should it	be
considered in the environmental impact report?	
Green Valley Road Coming onto	
eg: with North attent cold	
THE DEPLIES OF	25
DROBSEN DELS IS IN	
water? My well is also and parcels fexis	lina
D. 1 B close to the Divon	C
property line. Will my Driman	
will be attented - whom	
Marines That also occurs	sed
manage and maintain H	
tevers in the 2 points of 6	
Trave agricultural plantings of)
taxender, botanicals that provide products y	
Supplement my retirement income my liveli	†
and basic needs are dependent on water s	hood
PLEASE RETURN THIS FORM TO LSA ASSOCIATION	
Submit your comments by 5:00 p.m. on The	
Submit your comments by 5:00 p.m. on Thursday Jan. 17,2013 to:	icell.
2850 Fairlane Court	
Placerville, CA 95667 Email: pierre.rivas@edcacy.va	



NAME: Tenley Martinez ORGANIZATION: Member of Green Spring ADDRESS: 2021 Marden Drive PHONE: (530) 306-8427 Rescue CA 95672 EMAIL: Tenleymartinez @gmail.com
What impacts, mitigation measures and project alternatives do YOU think should be considered in the environmental impact report?
Geology / Soils - How will excavation on sloped property affect erosion of topsoil? Will soil run into the creek? Aspestos is an issue. If disturbed will it drift airborn into the creek or onto adjoining property? Will excavating cause an increased level of aspestos in the air? Air samples before excavation must be taken to establish a paseline.
Many other considerations/concerns have been raised to conclude, a high density project does not respect the pre existing neighboring low density zoned parces surrounding the Dixon Ranch Property.
PLEASE RETURN THIS FORM TO LSA ASSOCIATES, INC. STAFF OR Submit your comments by 5:00 p.m. on Thursday Jan 17.2013 Pierre Rivas, Principal Planner Development Service Department 2850 Fairlane Court Placerville, CA 95667 Email: pierre.rivas@edcapy.vic



NAME: Tenley Martinez ORGANIZATION: Member of Green Springs
ADDRESS: 2021 Marden Drive ORGANIZATION: Ranch Landowners Association Phone: (530) 306-8427
Rescue, CA 95672 EMAIL: tenleymartinez@gmail.
What impacts, mitigation measures and project alternatives do YOU think should be
considered in the environmental impact report?
Pumping sewage from a high density development through an existing neigh borhood is unacceptable. Putting 6000 cars a day onto a 2 laned toad (Green Uglley) will only increase traffic fatalities, flow and loss of property and human/only and loss of property and human/only and healthy on respect for nature and healthy lifestyle. Well planned development is possible thowever, the Dixon Project contradicts this. I was a primary schoolteacher in El Dorado County for 23 years. Our children development in El Dorado County responsible.
PLEASE RETURN THIS FORM TO LSA ASSOCIATES, INC. STAFF Submit Your comments of the distance of the state of the distance of the
Submit your comments by 5:00 p.m. on Thursday Jan 17:003 to: Pierre Rivas, Principal Planner Development Service Department 2850 Fairlane Court Placerville, CA 95667 Email: pierre.rivas@edcgov.us

From: Robert R. Morgan & Eleni Morgan 2537 Queenwood Drive Rancho Cordova, Ca 95670 Owners of lot #72, Green Springs Ranch

January 13, 2013

To: Mr Pierre Rivas
El Dorado County
Development Services Department
2850 Fairlane Court
Placerville, CA 95667

Dear Mr. Rivas:

Thank you for sending us your certified letter, dated 12/14/2012 and soliciting our response regarding the proposed development of the Dixon Ranch. My husband and I have read all previous proposals, copies of which we have received, as well as your letter, carefully.

So, here is our response. Pay attention and evaluate, carefully, only the first topic: <u>Aesthetics.</u> And, if you give it the correct, complete evaluation, this will give you the answers you are looking for the remaining topics.

Dixon Ranch, as well as the surrounding land, is a beautiful, bucolic piece of land. Crowded housing development will look ugly and out of place in that area. The best looking plan would be one that allows one acre of land per a unit. If this is applied, it will give you an answer for the rest of the topics. One part that, really, bothers us is the seniors units. Seniors need to be (a) near shopping, and complete medical facilities. There is not all that much in that area. And (b) seniors need peace and quietness. If all those proposed houses are built near and/or around them, they will never be able to have either one.

The best alternative to this project would be one acre per a unit. This, in addition to giving an answer to the other topics listed, will minimize the issue of crime connected with congested areas. We all know that crowded housing areas promote trouble and crime.

We hope and pray that you and the developers of this beautiful land would consider this first, instead of profits.

Recently, my husband and I read a novel written by John D. Mac Donald titled: <u>Barrier Island</u>. I have enclosed a copy of a direct quotation from the book. Hopefully, you will take the time to read it, as it will help you in making your recommendations.

Respectfully,

Robert R. Morgan

Robert R. Morgan

Eleni Morgan

We're in an endless war with the developers, a very critical and deadly war, and they don't even know they're in one. All they know is that if they are patient enough and generous enough and amiable enough, sooner or later they can pry some more fragile marshland from the politicians and take it away from the people forever. They rip it out of the ecosystem so completely it is as if it never existed. They put up condominiums and increase the sewage load, the traffic load, fire and police protection, water supply, education costs. But they make enough to join the right clubs, drive the right cars and build their own homes overlooking the water. And they go to breakfast work sessions of the Chamber of Commerce and the Committee of One Hundred to talk about the problems of the future of the Gulf area. And after they are dead, the damage they do goes on and on, visited on their descendents forevermore. Their great-grandchildren will live in a world that is drab, dirty, ugly and dangerous. A world composed of an unending Miami or Calcutta or Djakarta, sick and stinking.

Jan 14, 2013 Mr. Kilas -Thankyou for hearing own Concerno regarding the proposed Dixon Kanch high denoting housing project. We line at 1980 Deer Valley road. This project will be literally in aur lesch yard. We have always planned on this being am retirement home and community we as most in this area have gaid the price to live away from the high traffic, and high denorty housing areas, New this project will certainly change are of that. The warse and air pallution alme is reason enough to cancel This in am appinion. We are very adament about mat allowing this project to proceed as planmed - Senceuly Mary + Vancy Gralier

APPENDIX B TRAFFIC IMPACT ANALYSIS REPORT

Traffic Impact Analysis

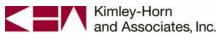
Dixon Ranch (WO#5) El Dorado Hills, California

REVISED FINAL June 18, 2013

Prepared for:

El Dorado County, California

Prepared by:



11919 Foundation Place, Suite 200 Gold River, California 95670

Phone: (916) 858-5800 Fax: (916) 608-0885





Memorandum

To: Joel Korotkin

From: Matt Weir, P.E., T.E., PTOE

Re: Traffic Impact Analysis Addendum

Dixon Ranch - El Dorado Hills, California

Date: May 29, 2014

As requested, I am writing to provide supplemental information in support of our traffic study¹ previously prepared for the above referenced project. The information in this memorandum clarifies and/or expands the content and conclusions of the previous traffic study. Please note that the traffic section of the project's Draft Environmental Impact Report (DEIR) incorporates this information and should, therefore, be considered the comprehensive source for all traffic related information. The following is a discussion of each of the topic areas for which this memorandum has been prepared.

I. Traffic Mitigation Correlation to DEIR

In an effort match the traffic mitigations documented in our previously prepared traffic study¹, **Table 1** provides clarification of how the traffic study and DEIR traffic/transportation mitigation measures correlate:

Analysis Scenario & Intersection	TIA Mitigation	DEIR Mitigation
Existing (2013) plus Proposed Project		
Intersection #2	M1	TRANS-1
Intersection #12	M2	TRANS-2
EPAP (2018) plus Proposed Project		
Intersection #2	M3	TRANS-3
Intersection #4	M4	TRANS-4
Cumulative (2025) plus Proposed Project		
Intersection #2	M5	TRANS-5
Intersection #4	M6	TRANS-6
Intersection #7	M7	TRANS-7
Intersection #24	M8	TRANS-8
Intersection Queuing		
Intersection #2 and #12	M9 (see Section III below)	TRANS-9

Table 1 - Traffic Mitigation Summary

II. Intersection Queuing, Silva Valley Parkway @ US-50 Westbound Ramps

We have evaluated the available storage distance previously documented for the westbound approach to the Silva Valley Parkway intersection with the US-50 Westbound Off-Ramp. As noted in **Table 16** of our original traffic analysis¹, the westbound right-turn lane was previously depicted as having 360-feet of available storage.

Dixon Ranch

¹ Traffic Impact Analysis, Dixon Ranch (WO#5), Kimley-Horn and Associates, Inc., June 18, 2013.



A recent email from the County² provided design plans for the current interchange project in which the subject approach lane is shown to have approximately 700-feet of storage. When the storage distance is corrected to match the current design plans (changed from 360-feet to 700-feet), there is no longer a need to address queuing along this approach as the maximum queuing is noted as being 663-feet.

III. TIA Mitigation 9 (M9), Intersection Queuing for Significant LOS Impact Locations

As presented in the **Table 2** below, an additional queuing analysis was prepared to evaluate the intersections that were previously identified as having a significant impact during the operational analyses. The purpose of this analysis was to determine if additional impacts related to queuing would be realized. For this supplemental evaluation, at locations where the addition of the proposed project is anticipated to cause the vehicle queues to exceed the available storage capacity, improvements to decrease the vehicle queues and/or increase the available storage length are recommended. The following summarizes intersection queues that exceed capacity and corresponding improvements that are recommended:

- M9, Intersection #2, Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road This intersection was previously identified as having significant LOS impacts for Existing (2013), Existing plus Approved Projects (2018), and Cumulative (2025) Conditions.
 - WBL: The westbound left-turn pocket at this intersection should be extended to 250-feet (from 105-feet) to accommodate future traffic projections. This extension would require widening Green Valley Road between El Dorado Hills Boulevard and Silva Valley Parkway. The documented queuing currently is utilizing the entire storage space between intersections, but is not exceeding it. This queuing would exceed the storage capacity with future traffic, as well as with the addition of the proposed project. The project increases traffic volumes for this movement and should contribute its proportionate share toward this improvement.
 - o WBT/R:To accommodate the westbound through queue, an additional westbound through lane should be provided between El Dorado Hills and Silva Valley Parkway that is long enough to accommodate the anticipated queuing and other operational considerations. This mitigation was specified during the operational analysis for Cumulative (2025) conditions. It is important to note that the "Green Valley Road Widening from Salmon Falls Road to Deer Valley Road" project is identified in the current County Capital Improvement Program (CIP) as a "Future" project that "will be built beyond fiscal year 2020/2021." With the widening improvements identified, queuing for the westbound through would be resolved. The queuing impacts currently exist and would continue to worsen with future traffic and the addition of the proposed project. Similar to the operational mitigation discussion for Cumulative (2025) conditions, the project should contribute its proportionate share toward these improvements.
 - NBT/R: The northbound through queue extends beyond the next intersection to the south, Timberline Ridge Drive. To prevent blocking of traffic entering and exiting Timberline Ridge Drive, "Keep Clear" markings should be added to northbound El Dorado Hills Boulevard lanes in front of the Timberline Ridge Drive intersection. There is approximately 960-feet beyond Timberline Ridge Drive until the next intersection to the south that would accommodate the queue. The project increases traffic volumes for this movement and should contribute its proportionate share toward these improvements.

² Email from Dave Spiegelberg, El Dorado County Department of Transportation, to Brian Allen, CTA Engineering & Surveying.



Table 2 – Intersection Queuing Evaluation Results for Select Locations

		AM Pea	AM Peak-Hour		k-Hour
Intersection / Analysis Scenario	Movement	Available	95 th %	Available	95 th %
		Storage (ft)	Queue (ft)	Storage (ft)	Queue (ft)
#2, Green Valley Rd @ El Dorado Hills Blvd					
	WBL				
E)	kisting (2013)		99		75
Existing plus Proposed P	roject (2013)		276		212
Existing plus Proposed Project (2013	3) (Mitigated)		233		208
	EPAP (2018)		169		150
EPAP plus Proposed P	roject (2018)	105	242	105	203
EPAP plus Proposed Project (2018	3) (Mitigated)		185		191
Cumu	ılative (2025)		156		162
Cumulative plus Proposed P	roject (2025)		210		215
Cumulative plus Proposed Project (2025	5) (Mitigated)		131		116
	WBT/R				
Ex	kisting (2013)		996		514
Existing plus Proposed P	roject (2013)		1254		706
Existing plus Proposed Project (2013	B) (Mitigated)		1083		639
	EPAP (2018)		1390		764
EPAP plus Proposed P		800	1615	800	954
EPAP plus Proposed Project (2018	, ,		1428		799
Cumu		1660	 	914	
Cumulative plus Proposed P			1885	-	1094
Cumulative plus Proposed Project (2025	5) (Mitigated)		550		312
	EBL				
	kisting (2013)		49		194
Existing plus Proposed P			50		239
Existing plus Proposed Project (2013	, , <u> </u>		63		196
	EPAP (2018)		93		272
EPAP plus Proposed P		85	93	85	272
EPAP plus Proposed Project (2018			98		264
	ılative (2025)		93		291
Cumulative plus Proposed P			93		291
Cumulative plus Proposed Project (2025			69		179
	EBT				
	kisting (2013)		262		870
Existing plus Proposed P				1289	
Existing plus Proposed Project (2013) (Mitigated)			319		1190
EPAP (2018)		4020	351	4022	1386
EPAP plus Proposed P		1820	392	1820	1616
EPAP plus Proposed Project (2018	, ,		358		1515
	ulative (2025)		373		1333
Cumulative plus Proposed P			417		1564
Cumulative plus Proposed Project (2025	6) (Mitigated)		160		464



Table 2 – Intersection Queuing Evaluation Results for Select Locations (Continued)

		AM Pea	k-Hour		
Intersection / Analysis Scenario	Movement	Available	95 th %	Available	95 th %
		Storage (ft)	Queue (ft)	Storage (ft)	Queue (ft)
#2, Green Valley Rd @ El Dorado Hills Blvd (con	tinued)				
	NBL				
E)	kisting (2013)		58		77
Existing plus Proposed P	roject (2013)		58		91
Existing plus Proposed Project (2013	3) (Mitigated)		72		92
	EPAP (2018)		72		96
EPAP plus Proposed P	roject (2018)	165	72	165	96
EPAP plus Proposed Project (2018	· · · · ·		74		100
	ılative (2025)		89		126
Cumulative plus Proposed P	roject (2025)		89		126
Cumulative plus Proposed Project (2025	5) (Mitigated)		62		80
	NBT/R				
Ex	kisting (2013)		107		263
Existing plus Proposed P	roject (2013)		133		513
Existing plus Proposed Project (2013	B) (Mitigated)		170		517
	EPAP (2018)		179	460	570
EPAP plus Proposed P	roject (2018)	460	190		638
EPAP plus Proposed Project (2018	B) (Mitigated)		178		611
Cumı	ulative (2025)		179		633
Cumulative plus Proposed P	roject (2025)		190		699
Cumulative plus Proposed Project (2025	6) (Mitigated)		117		364
	SBR				
Ex	kisting (2013)		67		29
Existing plus Proposed P	roject (2013)		70		53
Existing plus Proposed Project (2013	B) (Mitigated)		67		52
	EPAP (2018)		107		58
EPAP plus Proposed P	roject (2018)	590	107	590	58
EPAP plus Proposed Project (2018	B) (Mitigated)		70		34
Cumı	ulative (2025)		145		63
Cumulative plus Proposed P	roject (2025)		146		63
Cumulative plus Proposed Project (2025	6) (Mitigated)		55		37
	SBT				
Ex	kisting (2013)		532		147
Existing plus Proposed P	roject (2013)		559		195
Existing plus Proposed Project (2013	B) (Mitigated)		360 (SBT)		117 (SBT)
	EPAP (2018)		703		240
EPAP plus Proposed P	roject (2018)	590	708	590	248
EPAP plus Proposed Project (2018) (Mitigated) Cumulative (2025) Cumulative plus Proposed Project (2025)			506 (SBT)		163 (SBT)
			837		253
			841		261
Cumulative plus Proposed Project (2025	(Mitigated)		295 (SBT)		98 (SBT)
	SBL				
Existing plus Proposed Project (2013			165		98
<u> </u>	, , ,	240	185	240	121
EPAP plus Proposed Project (2018) (wiitigateu)	270	103	240	121



Table 2 – Intersection Queuing Evaluation Results for Select Locations (Continued)

		AM Pea		PM Pea	
Intersection / Analysis Scenario	Movement	Available	95 th %	Available	95 th %
		Storage (ft)	Queue (ft)	Storage (ft)	Queue (ft)
#3, Green Valley Rd @ Silva Valley Pkwy					
	WBL				
	xisting (2013)		96		62
Existing plus Proposed P			112		74
	EPAP (2018)	350	136	350	118
EPAP plus Proposed P			285		218
Cumulative plus Proposed P	ulative (2025)		170 357		173 286
<u> </u>	Toject (2025)		337		200
#4, Green Valley Rd @ Loch Way	NBL				
Fy	xisting (2013)		12		11
Existing plus Proposed P			20		21
Existing plus i reposed i	EPAP (2018)		10		13
EPAP plus Proposed P			16		24
EPAP plus Proposed Project (2018	, , ,	380	6	380	7
Cumu	ulative (2025)		14		17
Cumulative plus Proposed P	roject (2025)		23		33
Cumulative plus Proposed Project (2025	5) (Mitigated)		9		9
	NBR				
	xisting (2013)		1		1
Existing plus Proposed P			1		1
	EPAP (2018)		1		1
EPAP plus Proposed P		60	1	60	1
EPAP plus Proposed Project (2018		-	1		1
Cumulative plus Proposed P	ulative (2025)		1		2
Cumulative plus Proposed Project (2025	, ,		1		2
#7, Green Valley Rd @ Deer Valley Rd	o) (wiitigateu)		1		2
#7, Green valley Nu @ Deer valley Nu	NBLTR				
	xisting (2013)		8		10
Existing plus Proposed P			9		12
<u> </u>	EPAP (2018)		10		14
EPAP plus Proposed P	roject (2018)	215	11	215	17
Cumu	ulative (2025)		17		29
Cumulative plus Proposed P	roject (2025)		20		36
Cumulative plus Proposed Project (2025	5) (Mitigated)		28		29
	SBLTR				
	xisting (2013)		17		11
Existing plus Proposed Project (2013)			19		13
EPAP (2018)			17	6	9
EPAP plus Proposed Projec		645	19	645	11
	ulative (2025)		24		14
Cumulative plus Proposed Project (2025		-	27		17
Cumulative plus Proposed Project (2025	o) (iviitigated)		32		23



Table 2 – Intersection Queuing Evaluation Results for Select Locations (Continued)

		AM Pea	k-Hour	PM Pea	k-Hour
Intersection / Analysis Scenario	Movement	Available	95 th %	Available	95 th %
		Storage (ft)	Queue (ft)	Storage (ft)	Queue (ft)
#7, Green Valley Rd @ Deer Valley Rd (continue	d)				
, , ,	EBL				
Cumulative plus Proposed Project (2025) (Mitigated)	100	4	100	12
	EBTR				
Cumulative plus Proposed Project (2025) (Mitigated)	1865	71	1865	211
	WBL				
Cumulative plus Proposed Project (2025)) (Mitigated)	100	5	100	11
	WBTR				
Cumulative plus Proposed Project (2025)) (Mitigated)	3130	157	3130	93
#12, El Dorado Hills Blvd @ Francisco Dr					
	NBL				
Ex	isting (2013)		300		447
Existing plus Proposed Pr	roject (2013)		327		447
Existing plus Proposed Project (2013) (Mitigated)		327		457
	EPAP (2018)	95	368	95	485
EPAP plus Proposed Pr			368		485
	lative (2025)		368		485
Cumulative plus Proposed Pr			368		485
	NBT				
	isting (2013)		96		265
Existing plus Proposed Pr			169		360
Existing plus Proposed Project (2013			169		368
	EPAP (2018)	890	166 890	353	
EPAP plus Proposed Pr			175	-	381
	lative (2025)		170		357
Cumulative plus Proposed Pr			179		385
	SBL		104		0
Existing plus Proposed Pr	isting (2013)		104 139		9
Existing plus Proposed Project (2013			113	-	8
	EPAP (2018)	105	113	105	8
EPAP plus Proposed Pr		103	113	103	8
	lative (2025)		117		8
Cumulative plus Proposed Pr			117		8
23	SBT				
Fx	isting (2013)		207		157
Existing plus Proposed Pr			387		219
Existing plus Proposed Project (2013			315		200
j. , , , , , , , , , , , , , , , , , , ,	EPAP (2018)	300	324	300	185
EPAP plus Proposed Project (2018)			350		201
	lative (2025)		326		185
Cumulative plus Proposed Pr	roject (2025)		352		201
	EBLTR				
Ex	isting (2013)	2205	488	2205	459
Existing plus Proposed Pr	roject (2013)	2285	488	2285	459



Table 2 – Intersection Queuing Evaluation Results for Select Locations (Continued)

	Intersection Queuing Evaluation Results for Select Locations (Continued) AM Peak-Hour PM Pea			k-Hour		
Intersection / Analysis Scenario Mo	ovement	Available	95 th %	Available	95 th %	
microcolon / / maryons seemane		Storage (ft)	Queue (ft)	Storage (ft)	Queue (ft)	
#12, El Dorado Hills Blvd @ Francisco Dr (continued	1)	otorage (it)	Queue (i.e)	otoruge (re)	Queue (11)	
#12, LI DOI ado Tillis Diva @ Francisco Di (continuea	EBLT					
Existing plus Proposed Project (2013) (M			46		38	
	AP (2018)		46		38	
EPAP plus Proposed Proje	, ,	100	46	100	38	
Cumulativ		100	48	100	38	
Cumulative plus Proposed Proje	, ,		48		38	
cumulative plus i roposeu i roje	EBR		40		30	
Existing plus Proposed Project (2013) (M			410		407	
	AP (2018)				450	
EPAP plus Proposed Proje		2285	439	2205	450	
Cumulativ		2203	439 439	2285	450	
Cumulative plus Proposed Proje			439		450	
	WBL/T/R		240		110	
	ng (2013)		240		140	
Existing plus Proposed Proje			240		140	
Existing plus Proposed Project (2013) (M		110	136	440	92	
	AP (2018)	110	137	110	93	
EPAP plus Proposed Proje			137		93	
Cumulativ			145		97	
Cumulative plus Proposed Proje	ect (2025)		145		97	
#17, El Dorado Hills Blvd @ US-50 WB Ramps						
	WBR ⁺					
	ng (2013)		57		360	
Existing plus Proposed Proje		185	63	185	431	
Existing plus Proposed Project (2013) (N			95		336	
	P (2018) ⁺					
EPAP plus Proposed Projec						
Cumulative						
Cumulative plus Proposed Projec	ct (2025) [*]					
	SBR					
Existir	ng (2013)		123		201	
Existing plus Proposed Proje			204		107	
Existing plus Proposed Project (2013) (M	<u> </u>		0 (free)		0 (free)	
EP <i>A</i>	AP (2018)	100 [*]	0 (free)	100 [*]	0 (free)	
EPAP plus Proposed Proje			0 (free)		0 (free)	
Cumulativ			0 (free)		0 (free)	
Cumulative plus Proposed Proje	ect (2025)		0 (free)		0 (free)	
#18, Latrobe Rd. @ US-50 EB Ramps						
	SBL					
Existir	ng (2013)		140		88	
Existing plus Proposed Project (2013)			161		98	
EPA	AP (2018)	250	312	250	259	
EPAP plus Proposed Proje	ect (2018)	350	301	350	250	
Cumulativ	ve (2025)		181		579	
Cumulative plus Proposed Proje	ct (2025)		181		579	



Table 2 – Intersection Queuing Evaluation Results for Select Locations (Continued)

		AM Pea		PM Pea	
Intersection / Analysis Scenario	Movement	Available	95 th %	Available	95 th %
		Storage (ft)	Queue (ft)	Storage (ft)	Queue (ft)
#19, Silva Valley Pkwy @ US-50 EB Ramps					
	EBL				
Exi	sting (2013)				
Existing plus Proposed Project (2013)					
!	EPAP (2018)		183		349
EPAP plus Proposed Pro	oject (2018)	750	204	750	390
EPAP plus Proposed Project (2018)	(Mitigated)		204		402
Cumul	ative (2025)		305		455
Cumulative plus Proposed Pro	oject (2025)		318		503
	NBL				
Exi	sting (2013)				
Existing plus Proposed Pro	oject (2013)				
	EPAP (2018)		207		390
EPAP plus Proposed Pro	oject (2018)	350	207	350	390
EPAP plus Proposed Project (2018)	(Mitigated)		n/a		n/a
Cumul	ative (2025)		375		584
Cumulative plus Proposed Pro	oject (2025)		375		584
#20, Silva Valley Pkwy @ US-50 WB Ramps					
	WBR				
Exi	sting (2013)				
Existing plus Proposed Pro	oject (2013)				
1	EPAP (2018)	700	121	700	465
EPAP plus Proposed Pro	oject (2018)	700	132	700	496
Cumul	ative (2025)		304		637
Cumulative plus Proposed Pro	oject (2025)		314		663
	SBR				
	sting (2013)				
Existing plus Proposed Propose	oject (2013)				
1	EPAP (2018)	85	24	85	132
EPAP plus Proposed Pro	oject (2018)	83	36	83	133
	ative (2025)		0 (free)		0 (free)
Cumulative plus Proposed Pro	oject (2025)		0 (free)		0 (free)
#24, Silva Valley Pkwy @ Appian Wy					
	NBLTR				
Exi	sting (2013)		332		394
Existing plus Proposed Propose	oject (2013)		338	409	
	EPAP (2018)		283		467
EPAP plus Proposed Pro	<u> </u>	1665	310	1665	549
	ative (2025)		369		589
Cumulative plus Proposed Pro			397		671
Cumulative plus Proposed Project (2025)	(Mitigated)		203		436



Table 2 – Intersection Queuing Evaluation Results for Select Locations (Continued)

		AM Pea	k-Hour	PM Pea	k-Hour
Intersection / Analysis Scenario	Movement	Available	95 th %	Available	95 th %
		Storage (ft)	Queue (ft)	Storage (ft)	Queue (ft)
#24, Silva Valley Pkwy @ Appian Wy					
	SBLTR				
Exi	isting (2013)		323		262
Existing plus Proposed Pr	oject (2013)		341		271
	EPAP (2018)		315		362
EPAP plus Proposed Pr	<u> </u>	3500	390	3500	410
	ative (2025)		355		387
Cumulative plus Proposed Pr	· · · · · · · · · · · · · · · · · · ·		430		436
Cumulative plus Proposed Project (2025)			233		564
#24, Silva Valley Pkwy @ Appian Wy (continued)					
	EBLTR				
	isting (2013)		146		63
Existing plus Proposed Pr			146		63
	EPAP (2018)	-		54	
EPAP plus Proposed Pr		390	108	390	54
	ative (2025)		133	-	67
Cumulative plus Proposed Pr	· · · · · · · · · · · · · · · · · · ·		133		67
Cumulative plus Proposed Project (2025)	<u> </u>		41		36
WBLTR			250		07
	isting (2013)		259		97
Existing plus Proposed Pr	<u> </u>		259	_	97
EPAP plus Proposed Pr	EPAP (2018)	2025	299 299	2025	152
·	ative (2018)	2025	299	2025	152 152
Cumulative plus Proposed Pr			299		152
Cumulative plus Proposed Project (2025)	<u> </u>		154		76
#26, Green Valley Rd @ Site Access Dwy	(Willigated)		134		70
#20, Green valley Nu @ Site Access Dwy	WBL				
Fvi	sting (2013)				
Existing plus Proposed Pr	• , ,		12		35
	EPAP (2018)		14		33
EPAP plus Proposed Pr		100 ⁺	12	100 ⁺	56
	ative (2025)				30
Cumulative plus Proposed Pr			12		77
Source: Highway Capacity Manual (HCM) 2000 metho	<u> </u>	chro [©] v8.			-
*Intersection approach with available storage length e	qual to segmer	nt length. † Assu	med initial geo	metry.	

■ M9, #12, El Dorado Hills Boulevard @ Francisco Drive

This intersection was previously identified as having significant LOS impacts for Existing (2013), Conditions.

o **SBT:** The southbound through queue extends beyond the next intersection to the north, Telegraph Hill Road. To prevent blocking of traffic entering and exiting Telegraph Hill Road, "Keep Clear" markings should be added to southbound El Dorado Hills Boulevard lanes in front of the Telegraph Hill Road intersection. There is approximately 440-feet beyond Telegraph Hill Road until the next intersection to the north that would accommodate the queue.



All proposed mitigations for queuing are extensions of turn pockets or "Keep Clear" pavement markings to help minor streets at adjacent intersections access the major roadways. These modifications would not have an effect on other movements at intersections, so no additional analysis was prepared.

It is important to note that approaches at four of the intersections evaluated are also shown to have queuing in excess of available storage. Because the proposed project does not increase traffic volumes for these movements, no additional improvements to mitigate queuing conditions are required. The following is a list of these movements:

- Intersection #2, Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
 - o EBL
- #12, El Dorado Hills Boulevard @ Francisco Drive
 - o NBL
 - o SBL
 - o WBL/T/R
- #18, Latrobe Road @ US-50 EB Ramps
 - o SBL
- #19, Silva Valley Parkway @ US-50 EB Ramps
 - o NBL

IV. Intersection Fair Share Calculations

For locations at which the proposed project was determined to contribute traffic to conditions already operating at a substandard level, the project's "fair share" proportion was calculated. This calculation was prepared in accordance with Caltrans' standard methodology³.

Accordingly, using both the intersection LOS impacts per the previous traffic study, and the intersection queuing impacts per the discussion above, **Table 3** provides a summary of the proposed project's fair share contributions to the applicable significant impacts.

Table 3 – Traffic Impact Fair Share Summary

Int.	Intersection	Required Mitigation	Scenario	Fair Share %
#2	GVR at EDH/SFR	Change the northbound and southbound signal phasing from split-phased to concurrent protected left turns.	2018	46%
#2	GVR at EDH/SFR	Add an additional through lane in each direction along Green Valley Road	2025	33%
#2	GVR at EDH/SFR	The westbound left-turn pocket at this intersection should be extended to 250' (from 105')	2018	61%
#2	GVR at EDH/SFR	"KEEP CLEAR" markings should be added to northbound EDH lanes in front of Timberline Ridge Drive intersection	2018	27%
#12	EDH at Francisco	"KEEP CLEAR" markings should be added to southbound EDH lanes in front of the Telegraph Hill Road intersection.	2018	26%
#7	GVR at Deer Valley	Add traffic signal	2025	32%
#24	Silva Valley at Appian	Add traffic signal	2025	35%

³ Guide for the Preparation of Traffic Impact Studies, Caltrans, December 2002.

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EXECUTIVE SUMMARY

This report documents the results of a traffic impact analysis completed for Dixon Ranch, an approximately 280-acre project proposed to be developed with up to 604 new residential units (444 single-family detached units and 160 age-restricted single-family detached units), and a 3.5-acre soccer park (the "proposed project" or "project"). The project site has one existing residence which will remain. The project site is generally located south of Green Valley Road, east of Silva Valley Parkway in El Dorado Hills, California. The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This study was performed in accordance with the El Dorado County Department of Transportation's *Traffic Impact Study Protocols and Procedures*, and the scope of work provided by a representative of the County.

Primary access to the site will be provided via two driveways along Green Valley Road, one right-in/right-out, and one full access. All other access points are proposed to be emergency use only. The following intersections are included in this evaluation:

- 1. Green Valley Road @ Francisco Drive
- 2. Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
- 3. Green Valley Road @ Silva Valley Parkway/Allegheny Road
- 4. Green Valley Road @ Loch Way
- 5. Green Valley Road @ Wilson Estates Connector (Future)
- 6. Green Valley Road @ Malcolm Dixon Road
- 7. Green Valley Road @ Deer Valley Road
- 8. Green Valley Road @ Silver Springs Parkway (Future)
- 9. Green Valley Road @ Bass Lake Road
- 10. Green Valley Road @ Cambridge Road
- 11. Green Valley Road @ Cameron Park Drive
- 12. El Dorado Hills Boulevard @ Francisco Drive
- 13. El Dorado Hills Boulevard @ Harvard Way
- 14. El Dorado Hills Boulevard @ Serrano Parkway
- 15. El Dorado Hills Boulevard @ Saratoga Way (North)
- 16. El Dorado Hills Boulevard @ Saratoga Way (South)
- 17. El Dorado Hills Boulevard @ US-50 Westbound Ramps
- 18. Latrobe Road @ US-50 Eastbound Ramps
- 19. Silva Valley Parkway @ US-50 Eastbound Ramps (Future)
- 20. Silva Valley Parkway @ US-50 Westbound Ramps (Future)
- 21. Silva Valley Parkway @ Country Club Drive (Future)
- 22. Silva Valley Parkway @ Serrano Parkway
- 23. Silva Valley Parkway @ Harvard Way
- 24. Silva Valley Parkway @ Appian Way
- 25. Green Valley Road @ Site Access Driveway (Right-in/Right-out) (Future)
- 26. Green Valley Road @ Site Access Driveway (Full access) (Future)



Based on the County's requirements, this traffic impact analysis was conducted for the study facilities for the following scenarios:

- A. Existing (2013) Conditions
- B. Existing (2013) plus Proposed Project Conditions
- C. Existing plus Approved Projects (2018) Conditions
- D. Existing plus Approved Projects (2018) plus Proposed Project Conditions
- E. Cumulative (2025) Conditions
- F. Cumulative (2025) plus Proposed Project Conditions

Significant findings of this study include:

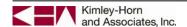
- The proposed project is estimated to generate 4,931 total daily trips, with 379 trips occurring during the AM peak-hour, and 484 trips occurring during the PM peak-hour.
- The proposed project is not consistent with the 2004 General Plan land use designation and zoning density for the site (Low Density Residential). Therefore, the proposed project does satisfy the first criterion for determining if a new cumulative 2025 analysis is required in addition to the analysis already completed for the County's General Plan. According to information provided by a representative of the County it is necessary to re-run the County's travel demand model by adding an additional 294 single-family dwelling units to the Traffic Analysis Zone (TAZ) in which the project is located to reflect the addition of the proposed project.
- As defined by the County, the addition of the proposed project to the Existing (2013), Existing plus Approved Projects (2018), and Cumulative (2025) scenarios significantly worsens conditions at multiple study intersections. However, these impacts can be mitigated to be less than significant. The following is a summary of the required mitigation measures which are presumed to be the project's sole responsibility:

Existing (2013) plus Proposed Project

Mitigation (M1) - modifying the lane configuration on the southbound approach at Intersection #2 (Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road). The modified southbound lane configuration will result in the following: one left-turn lane, one through lane, and one right-turn lane. The existing right-of-way and pavement widths along Salmon Falls Road, immediately north of Green Valley Road, appear to provide adequate space to accommodate the additional southbound approach lane.

Existing plus Approved Projects (2018) plus Proposed Project

Mitigation (M4) - adding a two-way left-turn lane along Green Valley Road in the immediate vicinity of Intersection #4 (Green Valley Road @ Loch Way). The addition of a two-way left-turn lane would provide a left-turn lane for westbound left-turning traffic and would allow for vehicles making a northbound left-turn movement to clear eastbound traffic and wait for a gap in westbound traffic.

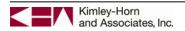


Cumulative (2025) plus Proposed Project

- Mitigation (M6) (same as M4) adding a two-way left-turn lane along Green Valley Road in the immediate vicinity of Intersection #4 (Green Valley Road @ Loch Way). The addition of a two-way left-turn lane would provide a left-turn lane for westbound left-turning traffic and would allow for vehicles making a northbound left-turn movement to clear eastbound traffic and wait for a gap in westbound traffic.
- The significant impacts and associated mitigation measures identified in this report represent the effect of the full proposed project (604-units) added to Existing (2013) and EPAP (2018) Conditions. It is important to note that the necessity for, and the timing of the various mitigations measures could differ from what is presented based on potential phased project implementation.

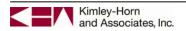
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INTRODUCTION

This report documents the results of a traffic impact analysis completed for Dixon Ranch, an approximately 280-acre project proposed to be developed with up to 604 new residential units (444 single-family detached units and 160 age-restricted single-family detached units), and a 3.5-acre soccer park (the "proposed project" or "project"). The project site has one existing residence which will remain. The project site is generally located south of Green Valley Road, east of Silva Valley Parkway in El Dorado Hills, California. The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This study was performed in accordance with the El Dorado County Department of Transportation's *Traffic Impact Study Protocols and Procedures*, and the scope of work provided by a representative of the County¹.

The remaining sections of this report document the proposed project, analysis methodologies, impacts and mitigation, and general study conclusions.

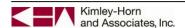
PROJECT DESCRIPTION

The project site is proposed to be developed with 444 single-family detached dwelling units, 160 agerestricted single-family detached units, and a 3.5-acre soccer park. The existing site residence will remain. Primary access to the site will be provided via two driveways along Green Valley Road, one right-in/right-out, and one full access. All other access points are proposed to be emergency use only. The project location is shown in Figure 1, and the proposed project site plan is shown in Figure 2. The following intersections are included in this evaluation:

- 1. Green Valley Road @ Francisco Drive
- 2. Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
- 3. Green Valley Road @ Silva Valley Parkway/Allegheny Road
- 4. Green Valley Road @ Loch Way
- 5. Green Valley Road @ Wilson Estates Connector (Future)
- 6. Green Valley Road @ Malcolm Dixon Road
- 7. Green Valley Road @ Deer Valley Road
- 8. Green Valley Road @ Silver Springs Parkway (Future)
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- 17. El Dorado Hills Boulevard @ US-50 Westbound Ramps
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- 21. Silva Valley Parkway @ Country Club Drive (Future)
- 22. Silva Valley Parkway @ Serrano Parkway
- 23. Silva Valley Parkway @ Harvard Way
- 24. Silva Valley Parkway @ Appian Way
- 25. Green Valley Road @ Site Access Driveway (Right-in/Right-out) (Future)
- 26. Green Valley Road @ Site Access Driveway (Full access) (Future)

Figure 3 illustrates the study facilities, existing traffic control, and existing lane configurations.

¹ Memorandum from Chirag Safi, Kittelson & Associates, Inc., to Eileen Crawford and Natalie Porter, El Dorado County DOT, November 15, 2012.



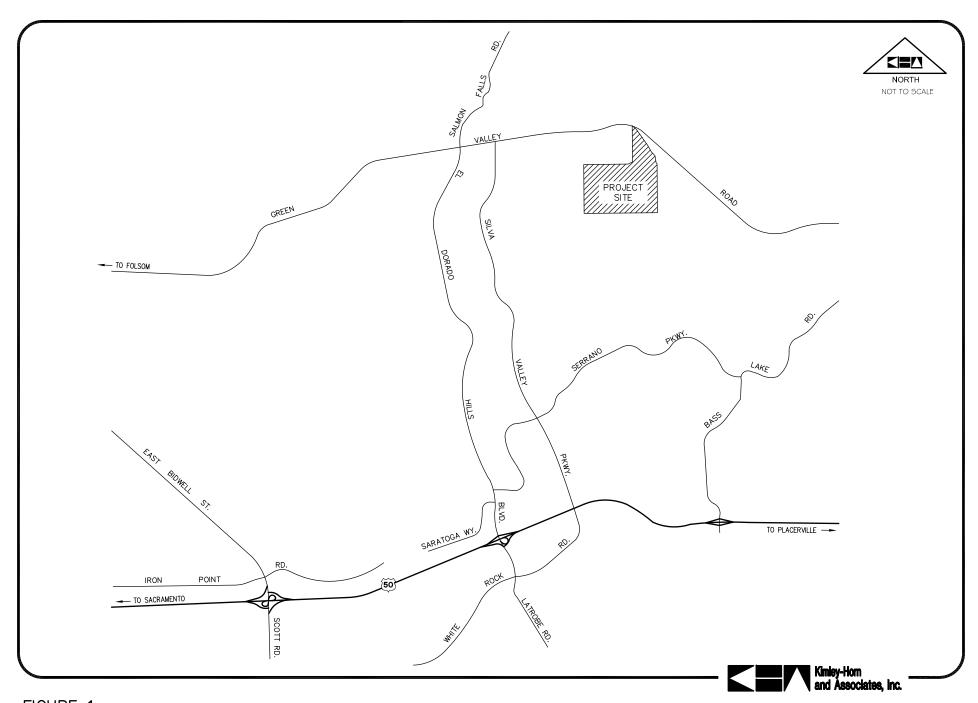
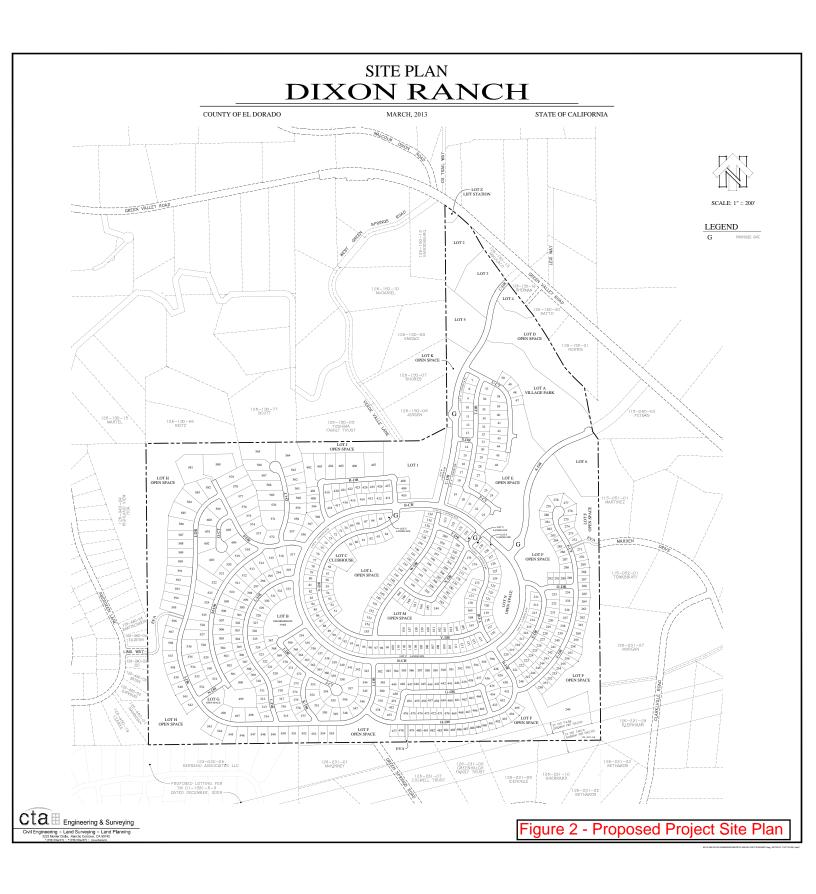


FIGURE 1

DIXON RANCH EL DORADO HILLS, CA



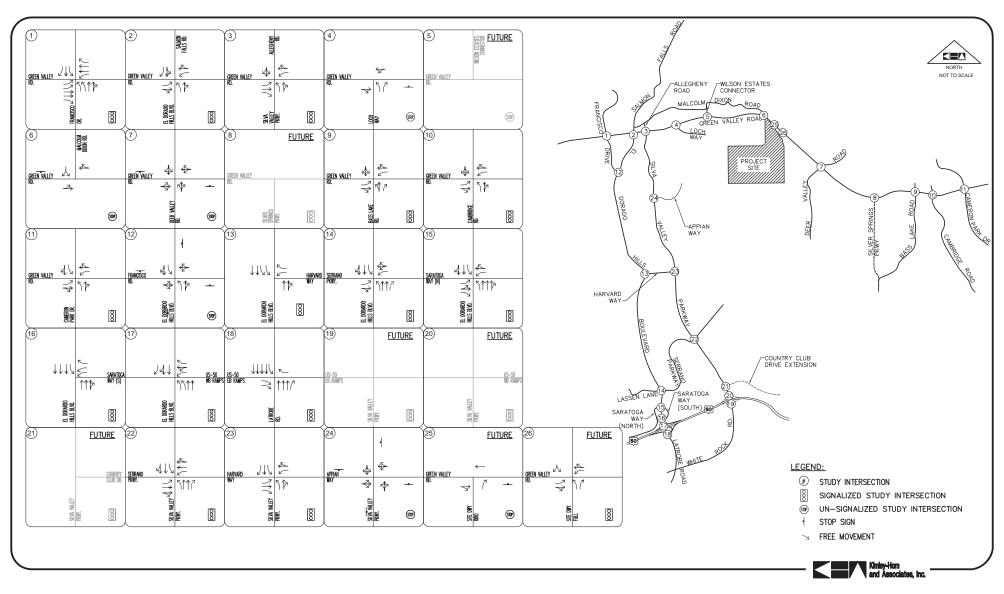


FIGURE 3
STUDY INTERSECTIONS, TRAFFIC CONTROL, AND LANE GEOMETRIES
EL DORADO HILLS, CA

PROJECT AREA ROADWAYS

The following are descriptions of the primary roadways in the vicinity of the project.

US Route 50 (US-50) is an east-west freeway located south of the project site. Generally, US-50 serves all of El Dorado County's major population centers and provides connections to Sacramento County to the west and the State of Nevada to the east. Primary access to the project site from US-50 is provided at the El Dorado Hills Boulevard/Latrobe Road interchange with supplemental access via the Silva Valley Parkway interchange beginning with the year 2018 analysis scenarios. Within the general project area, US-50 currently serves approximately 91,000 vehicles per day² (vpd) with three westbound and four eastbound travel lanes, west of El Dorado Hills Boulevard/Latrobe Road.

Green Valley Road is an east-west arterial roadway that connects Placerville with western portions of El Dorado County and eastern Sacramento County, south of Folsom Lake. Through the project area, Green Valley Road provides one travel lane in each direction and serves approximately 11,000 vehicles per day³.

El Dorado Hills Boulevard is a north-south arterial roadway that provides a primary connection to US-50 for western El Dorado County. Just north of US-50 this roadway carries approximately 31,700 vpd³ with three travel lanes in each direction. North of Green Valley Road, El Dorado Hills Boulevard becomes Salmon Falls Road. At the time of this study, the US-50 interchange with El Dorado Hills Boulevard/Latrobe Road was under construction. These improvements are assumed for year 2018 and 2025 analysis scenarios.

Silva Valley Parkway is a north-south collector roadway that connects Green Valley Road with Serrano Parkway and eventually US-50. Silva Valley Parkway provides one travel lane in each direction and serves approximately 6,200 vpd³ just south of Green Valley Road. The initial phase of a new US-50 interchange with Silva Valley Parkway was assumed to be constructed prior to the year 2018 analysis scenarios, with the ultimate configuration operational prior to the year 2025 analysis scenarios.

ASSESSMENT OF PROPOSED PROJECT

Proposed Project Trip Generation

The number of trips anticipated to be generated by the proposed project were derived using data included in *Trip Generation*, 9th Edition, published by the Institute of Transportation Engineers (ITE). The anticipated trip generation characteristics for the proposed project are depicted in Table 1.

	Size (units/#	Daily	AM Peak-Hour				PM Peak-Hour					
Land Use (ITE Code)	•		Total		N	0	UT	Total		N	0	Ţ
	fields)	Trips	Trips	%	Trips	%	Trips	Trips	%	Trips	%	Trips
Single-Family Detached Housing (210)	444	4,139	321	25%	80	75%	241	402	63%	253	37%	149
Senior Adult Housing-Detached (251)	160	720	57	35%	20	65%	37	64	61%	39	39%	25
Soccer Complex (488)	1	72	1	57%	1	43%	0	18	67%	12	33%	6
Net New External Trips:			379		101		278	484		304		180
Source: Trip Generation, 9 th Edition, ITE												

Table 1 – Proposed Project Trip Generation

As shown in Table 1, the proposed project is estimated to generate 4,931 daily trips, with 379 trips occurring during the AM peak-hour, and 484 trips occurring during the PM peak-hour.

³ El Dorado County Department of Transportation, 2012.



² Caltrans Traffic and Vehicle Data Systems Unit, http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2011all/index.html

Proposed Project Trip Distribution

The distribution of project traffic was based on information approved and provided by a representative of the County⁴. The project trip distribution percentages for all analysis scenarios are illustrated in Figure 4. The resulting AM and PM peak-hour traffic volumes attributed to the proposed project are illustrated in Figure 5 and Figure 6.

TRAFFIC IMPACT ANALYSIS METHODOLOGY

Analysis of transportation facility significant environmental impacts is based on the concept of Level of Service (LOS). The LOS of a facility is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Levels of Service for this study were determined using methods defined in the *Highway Capacity Manual, 2000* (HCM) and appropriate traffic analysis software.

The HCM includes procedures for analyzing two-way stop controlled (TWSC), all-way stop controlled (AWSC), and signalized intersections. The TWSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the intersection as a whole. Table 2 presents intersection LOS definitions as defined in the HCM.

Table 2 -	- Intersection	Lovol	of Sarvica	Critoria
TADIE / -	• 1111000000	IEVEL	OI SELVICE	CHIENA

Level of	Un-Signalized	Signalized Control Delay per Vehicle (sec/veh)			
Service (LOS)	Average Control Delay* (sec/veh)				
Α	≤ 10	≤ 10			
В	> 10 – 15	> 10 – 20			
С	> 15 – 25	> 20 – 35			
D	> 25 – 35	> 35 – 55			
E	> 35 – 50	> 55 – 80			
F	> 50	> 80			
Source: Highway Capacity Manual, 2000					

^{*} Applied to the worst lane/lane group(s) for TWSC

⁴ Email from Chirag Safi, Kittelson & Associates, Inc., February 19, 2013.



June 18, 2013

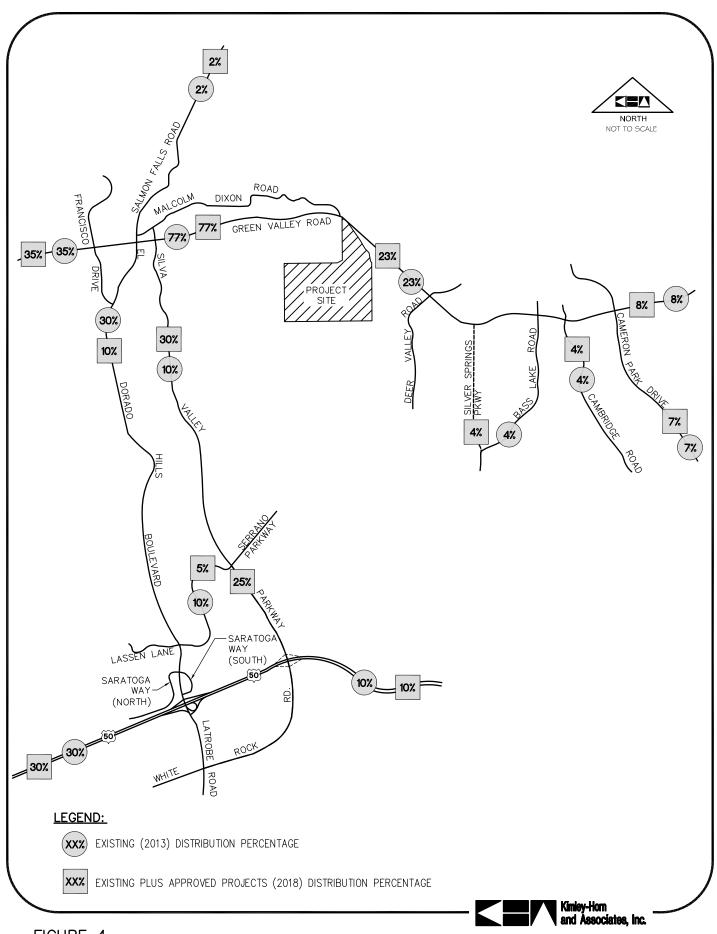


FIGURE 4

DIXON RANCH EL DORADO HILLS, CA

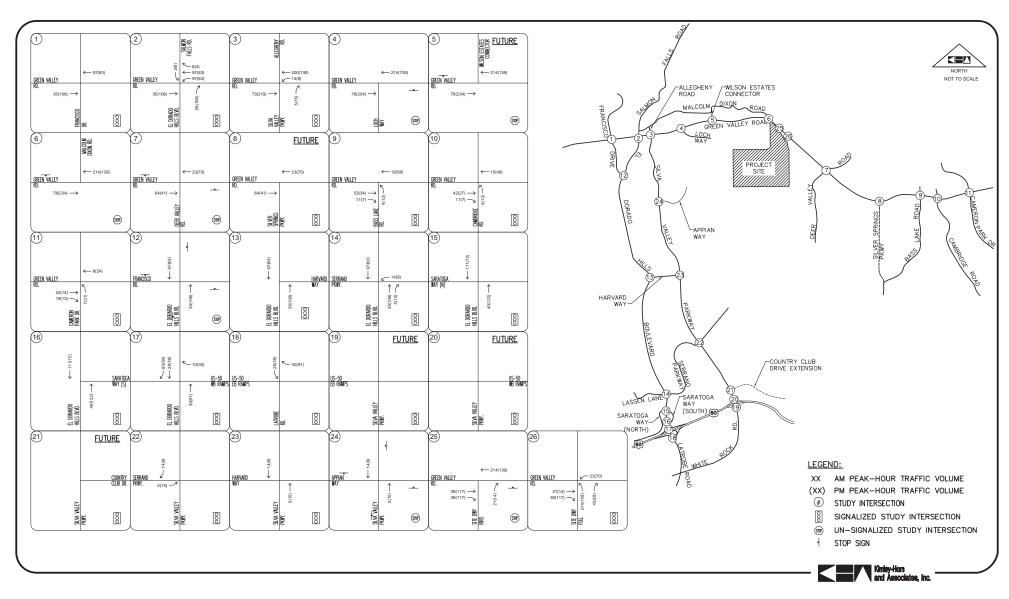


FIGURE 5
PROPOSED PROJECT TRIP ASSIGNMENT (EXISTING (2013))
EL DORADO HILLS, CA

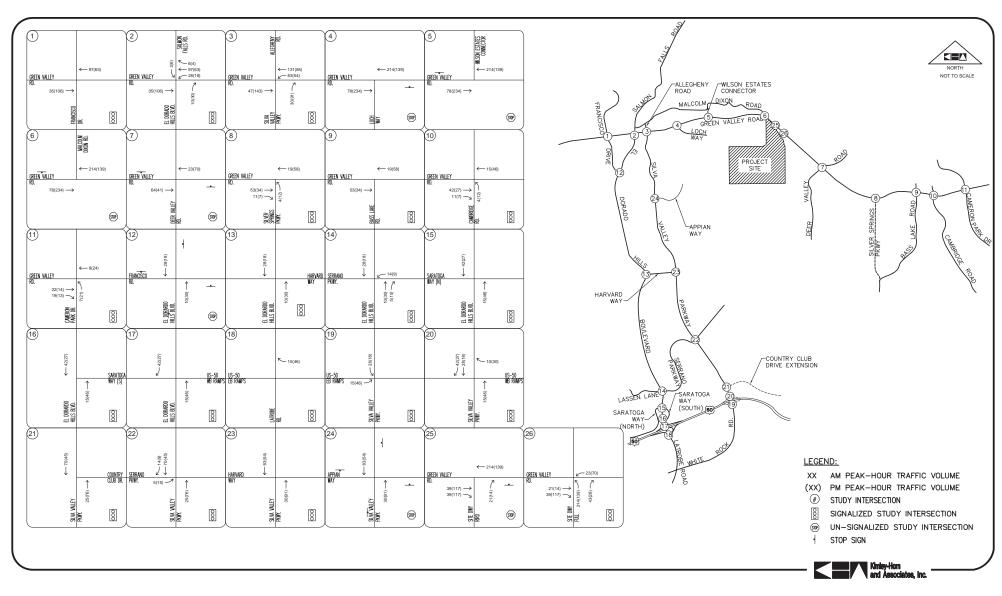


FIGURE 6

PROPOSED PROJECT TRIP ASSIGNMENT (EXISTING PLUS APPROVED PROJECTS (2018))

EL DORADO HILLS, CA

Consistency with General Plan Land Use Designation According to the County's *Protocols*:

"[A] Each traffic impact study must provide a review of a proposed project's consistency with the land use designations and zoning densities of the 2004 County General Plan to determine if the project is consistent with such designation(s) as applicable within the proposed project area...[B] If a proposed project is of a magnitude that is clearly within the amount of development which was anticipated in the traffic study conducted for the General Plan, then the General Plan's traffic analysis will serve as the basis for the cumulative traffic analysis of the project."

The proposed project is not consistent with the 2004 General Plan land use designation and zoning density for the site (Low Density Residential)⁵. Therefore, the proposed project does satisfy the first criterion [A] for determining if a new cumulative 2025 analysis is required in addition to the analysis already completed for the County's General Plan. According to information provided by a representative of the County⁶ it is necessary to re-run the County's travel demand model by adding an additional 294 single-family dwelling units (see the Cumulative (2025) plus Proposed Project Conditions discussion for details pertaining to the translation of age restricted units to traditional single family dwelling units) to the Traffic Analysis Zone (TAZ) in which the project is located to reflect the addition of the proposed project.

Based on the above criteria and the County's requirements, this LOS analysis was conducted for the study facilities for the following scenarios:

- A. Existing (2013) Conditions
- B. Existing (2013) plus Proposed Project Conditions
- C. Existing plus Approved Projects (2018) Conditions
- D. Existing plus Approved Projects (2018) plus Proposed Project Conditions
- E. Cumulative (2025) Conditions
- F. Cumulative (2025) plus Proposed Project Conditions

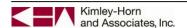
The following is a discussion of the analyses for these scenarios.

EXISTING (2013) CONDITIONS

Nineteen (19) new weekday AM and PM peak-period intersection turning movement traffic counts were conducted in January 2013. These counts were conducted between the hours of 6:30 a.m. and 9:30 a.m., and 3:30 p.m. and 6:30 p.m. The other seven (7) study intersections do not exist today, and are not contemplated in this analysis scenario.

Existing (2013) peak-hour turn movement volumes are presented in Figure 7, and the traffic count data sheets are provided in Appendix A. Table 3 presents the peak-hour intersection operating conditions for this analysis scenario.

⁶ Email from Chirag Safi, Kittelson & Associates, Inc., February 28, 2013.



⁵ 2004 General Plan Land Use Diagram, El Dorado County Planning Department.

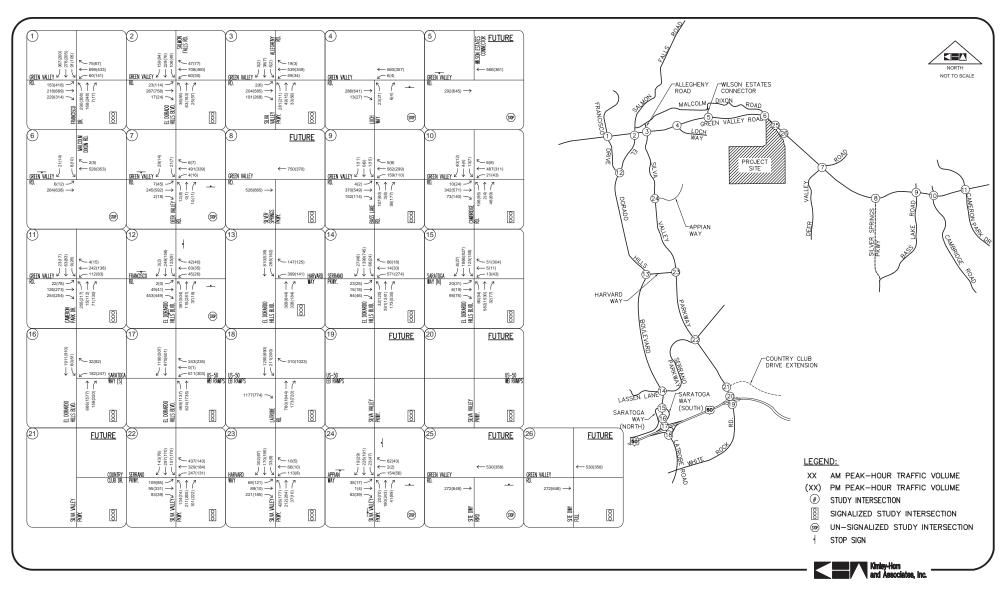


FIGURE 7

EXISTING (2013) PEAK-HOUR TRAFFIC VOLUMES

EL DORADO HILLS, CA

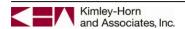
		Traffic	AM Peak-H	lour	PM Peak-H	lour
#	Intersection	Control	Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Rd @ Francisco Dr	Signal	29.5	С	52.6	D
2	Green Valley Rd @ El Dorado Hills Blvd/Salmon Falls Rd	Signal	63.8	E	43.4	D
3	Green Valley Rd @ Silva Valley Pkwy/Allegheny Rd	Signal	31.5	С	19.0	В
4	Green Valley Rd @ Loch Wy	TWSC*	19.2 (NBL)	С	24.3 (NBL)	С
5	Green Valley Rd @ Wilson Estates Connector	I	Not Studied in th	is Analys	is Scenario	
6	Green Valley Rd @ Malcolm Dixon Rd	TWSC*	14.3 (SB)	В	16.0 (SB)	С
7	Green Valley Road @ Deer Valley Rd	TWSC* 17.1 (SB) C		С	21.9 (SB)	С
8	Green Valley Rd @ Silver Springs Pkwy	Not Studied in this Analysis Scenario				
9	Green Valley Rd @ Bass Lake Rd	Signal	36.7	D	21.1	С
10	Green Valley Rd @ Cambridge Rd	Signal	22.5	С	20.4	С
11	Green Valley Rd @ Cameron Park Dr	Signal	32.4	С	30.4	С
12	12 El Dorado Hills Blvd @ Francisco Dr		87.5	F	68.9	F
13	3 El Dorado Hills Blvd @ Harvard Wy		16.0	В	10.5	В
14	El Dorado Hills Blvd @ Serrano Pkwy	Signal	41.9	D	16.1	В
15	El Dorado Hills Blvd @ Saratoga Way (North)	Signal	14.5	В	20.2	С
16	El Dorado Hills Blvd @ Saratoga Way (South)	Signal	5.7	Α	15.8	В
17	El Dorado Hills Blvd @ US-50 WB Ramps	Signal	44.6	D	36.5	D
18	Latrobe Rd @ US-50 EB Ramps	Signal	12.4	В	11.1	В
19	Silva Valley Pkwy @ US-50 EB Ramps					
20	Silva Valley Pkwy @ US-50 WB Ramps	I	Not Studied in th	nis Analys	sis Scenario	
21	Silva Valley Pkwy @ Country Club Dr					
22	Silva Valley Pkwy @ Serrano Pkwy	Signal	38.8	D	35.0	D
23	Silva Valley Pkwy @ Harvard Wy	Signal	30.4	C	15.1	В
24	Silva Valley Pkwy @ Appian Wy	AWSC	22.5	С	13.6	В
25	Green Valley Rd @ Site Access Dwy (Right-in/Right-out)		Dluc Project	Congrio	us Only	
26	Green Valley Rd @ Site Access Dwy	Plus Project Scenarios Only				
* Co	ntrol delay for worst minor approach (worst minor movement) for	or TWSC. Bol	d = Substandard p	er County	у	

As indicated in Table 3, the study intersections operate from LOS A to LOS F during the AM and PM peak-hours. Analysis worksheets for this scenario are provided in Appendix B.

EXISTING (2013) PLUS PROPOSED PROJECT CONDITIONS

Peak-hour traffic associated with the proposed project was added to the existing traffic volumes and levels of service were determined at the study intersections. Table 4 provides a summary of the intersection analysis and Figure 8 provides the AM and PM peak-hour traffic volumes at the study intersections for this analysis scenario.

As indicated in Table 4, the study intersections operate from LOS A to LOS F with the addition of project traffic during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in Appendix C.



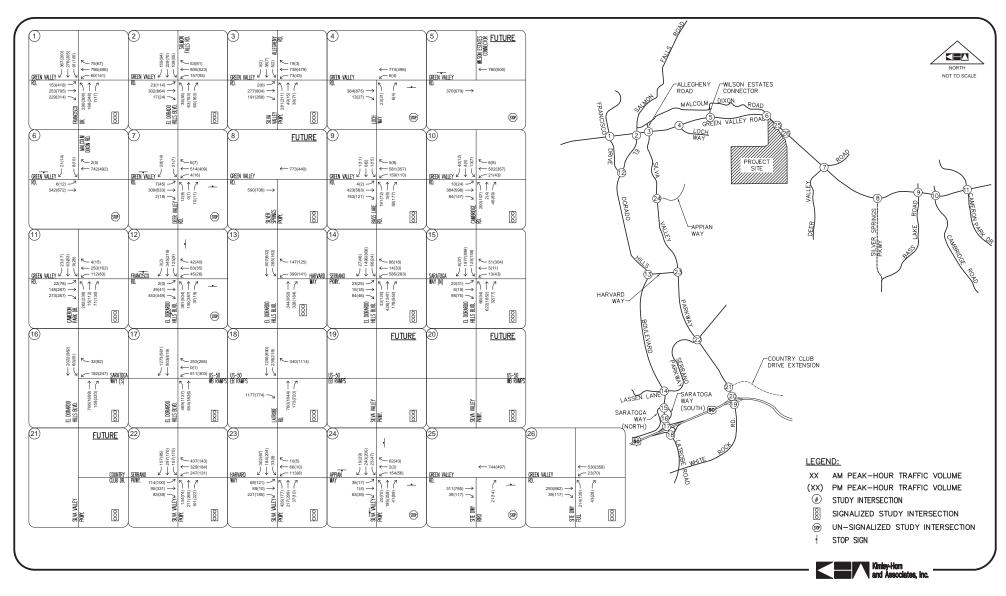
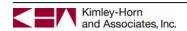


Table 4 – Existing (2013) and Existing (2013) plus Proposed Project Intersection Levels of Service

#	Intersection	Analysis	Traffic	AM Peak-H	lour	PM Peak-H	our
π	intersection	Scenario [†]	Control	Delay (sec)	LOS	Delay (sec)	LOS
1	Green Valley Rd @	Exist.	Signal	29.5	С	52.6	D
	Francisco Dr	Exist.+PP	8	30.9	C	53.1	D
2	Green Valley Rd @ El Dorado Hills Blvd/Salmon Falls Rd	Exist.	Signal	63.8	E	43.4	D
	Green Valley Rd @	Exist.+PP Exist.		87.7 31.5	F C	77.8 19.0	E B
3	Silva Valley Pkwy/Allegheny Rd	Exist.+PP	Signal	37.3	D	22.7	С
	Green Valley Rd @	Exist.	*	19.2 (NBL)	С	24.3 (NBL)	С
4	Loch Wy	Exist.+PP	TWSC*	28.9 (NBL)	D	44.6 (NBL)	E
5	Green Valley Rd @	Exist.		Not Studied in the	•		
5	Wilson Estates Connector	Exist.+PP		NOL Studied III the	ese Anulys	is scenarios	
6	Green Valley Rd @	Exist.	TWSC*	14.3 (SB)	В	16.0 (SB)	С
·	Malcolm Dixon Rd	Exist.+PP	11100	19.2 (SB)	С	23.9 (SB)	С
7	Green Valley Road @	Exist.	TWSC*	17.1 (SB)	C C	21.9 (SB)	C D
	Deer Valley Rd Green Valley Rd @	Exist.+PP		18.8 (SB)	L	25.3 (SB)	
8	Silver Springs Pkwy	Exist. Exist.+PP		Not Studied in the	ese Analys	is Scenarios	
	Green Valley Rd @	Exist.		36.7	D	21.1	С
9	Bass Lake Rd	Exist.+PP	Signal	47.4	D	22.2	С
10	Green Valley Rd @	Exist.	Cianal	22.5	С	20.4	С
10	Cambridge Rd	Exist.+PP	Signal	24.0	С	21.3	С
11	Green Valley Rd @	Exist.	Signal	32.4	С	30.4	С
	Cameron Park Dr	Exist.+PP	Signal	36.8	D	32.6	С
12	El Dorado Hills Blvd @	Exist.	AWSC	87.5	F	68.9	F
	Francisco Dr	Exist.+PP		110.7	F	78.5	F
13	El Dorado Hills Blvd @ Harvard Wy	Exist.	Signal	16.0	В	10.5	В
	El Dorado Hills Blvd @	Exist.+PP Exist.		16.4 41.9	B D	10.8 16.1	B B
14	Serrano Pkwy	Exist.+PP	Signal	45.7	D	15.9	В
	El Dorado Hills Blvd @	Exist.		14.5	В	20.2	С
15	Saratoga Way (North)	Exist.+PP	Signal	14.4	В	20.2	С
10	El Dorado Hills Blvd @	Exist.	Cianal	5.7	Α	15.8	В
16	Saratoga Way (South)	Exist.+PP	Signal	5.6	Α	15.4	В
17	El Dorado Hills Blvd @	Exist.	Signal	44.6	D	36.5	D
1,	US-50 WB Ramps	Exist.+PP	Signal	51.8	D	44.6	D
18	Latrobe Rd @	Exist.	Signal	12.4	В	11.1	В
	US-50 EB Ramps	Exist.+PP		12.4	В	11.2	В
19	Silva Valley Pkwy @ US-50 EB Ramps	Exist. Exist.+PP					
	Silva Valley Pkwy @	Exist.+PP					
20	US-50 WB Ramps	Exist.+PP		Not Studied in the	ese Analys	is Scenarios	
	Silva Valley Pkwy @	Exist.					
21	Country Club Dr	Exist.+PP					
22	Silva Valley Pkwy @	Exist.	Signal	38.8	D	35.0	D
22	Serrano Pkwy	Exist.+PP	Signal	39.0	D	36.4	D
23	Silva Valley Pkwy @	Exist.	Signal	30.4	С	15.1	В
	Harvard Wy	Exist.+PP	0	30.7	С	15.1	В
24	Silva Valley Pkwy @	Exist.	AWSC	22.5	С	13.6	В
	Appian Wy Green Valley Rd @	Exist.+PP		24.7	C	14.3	В
25	Green Valley Rd @ Site Access Dwy (Right-in/Right-out)	Exist.	T\\\(CC*	Plus Project			С
	Green Valley Rd @	Exist.+PP Exist.	TWSC [*]	10.4 (NBR) Plus Project	B Scenarios	16.1 (NBR)	
26	Site Access Dwy	Exist.+PP	Signal	8.5	A	7.9	Α
		oosed Project	2.6				

Exist. = Existing (2013), Exist. + PP = Existing (2013) plus Proposed Project Control delay for worst minor approach (worst minor movement) for TWSC. **Bold = Substandard per County**



EXISTING PLUS APPROVED PROJECTS (2018) CONDITIONS

Two approaches were used in the development of background traffic volumes for this analysis scenario.

First, for the twenty (20) study intersections that are not common with the study facilities found in the traffic study for the US-50 interchange with Silva Valley Parkway⁷, as required by the County, two conditions were evaluated to determine the worst case approximation of near-term study area roadway traffic volumes. Traffic associated with approved projects in the vicinity of the proposed project were combined and added to the Existing (2013) traffic conditions. A full inventory of these projects can be found in Appendix D. Next, five years of projected growth as derived from the County's travel demand model output was applied to the Existing (2013) traffic conditions. For this second condition, peak-hour traffic volumes for the study area roadway segments were obtained from a representative of the County for the years 1998 and 2025⁸. Using the 1998 and 2025 model data, percent annual peak growth rates were determined for each roadway segment direction and were then extended to five-year growth rates. The study intersections' Existing (2013) peak-hour traffic volumes were then increased by these five year growth rates (by direction) to obtain forecasted (year 2018) traffic conditions. These two volume conditions were compared and for each intersection and each time period (AM peak-hour and PM peak-hour) the worst case traffic conditions were utilized. Details regarding the comparison of year 2018 traffic conditions are presented in Appendix D.

Second, as directed by a representative of the County¹, for the six (6) study intersections that are common with the study facilities found in the traffic study for the US-50 interchange with Silva Valley Parkway⁷, year 2018 traffic volumes were developed by "back-casting" 2 percent per year from 2020 conditions.

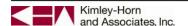
For all study intersections, traffic volumes were balanced as deemed appropriate based on the presence of intermediate driveways and/or cross-streets.

Figure 9 indicates lane configurations assumed to be constructed for Existing plus Approved Projects (2018) and Cumulative (2025) Conditions. As specified by a representative of the County¹, the following capital improvement projects are anticipated to be completed beginning with this analysis scenario:

- US-50 HOV Lanes Phase 0 (El Dorado Hills Interchange) (CIP #53124)
- US-50/Silva Valley Parkway Interchange Phase 1 (CIP #71328)
- Eastbound Right-Turn Lane on Francisco Drive at El Dorado Hills Boulevard (CIP #71358)
- Left-turn pockets on Green Valley Road at Deer Valley Road West (CIP #76114)

Table 5 provides a summary of the intersection analysis and Figure 10 provides the AM and PM traffic volumes for this analysis scenario. As indicated in Table 5, the study intersections operate from LOS A to LOS F during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in Appendix E.

Dowling Associates, Inc., <u>ftp://ftp.dowlinginc.com</u>.



⁷ Final Traffic Operations Study for: US-50 Silva Valley Interchange, Dowling Associates, Inc., July 22, 2010.

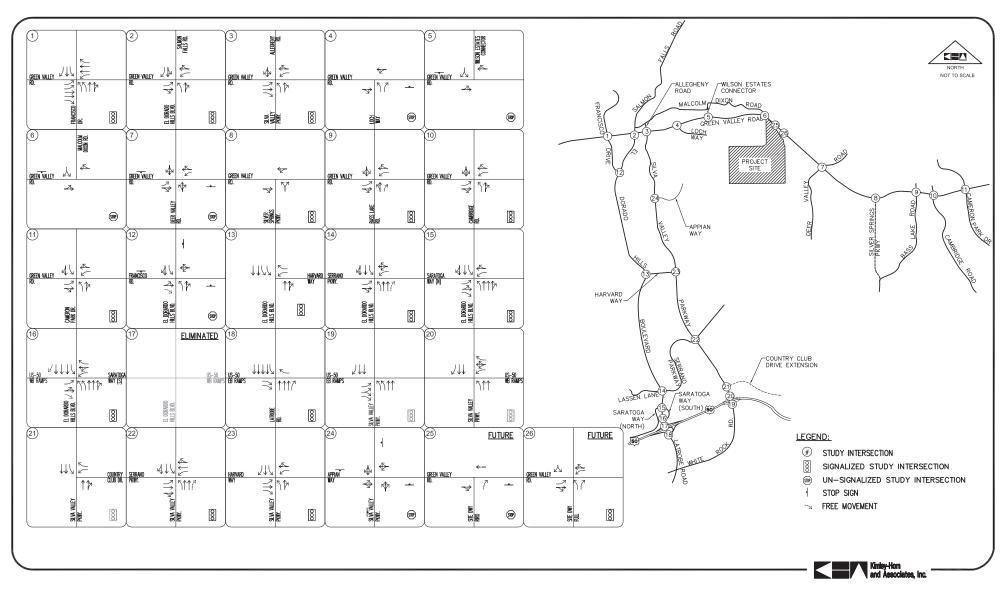


FIGURE 9

EXISTING PLUS APPROVED PROJECTS (2018) AND CUMULATIVE (2025) INTERSECTION CONFIGURATIONS

EL DORADO HILLS, CA

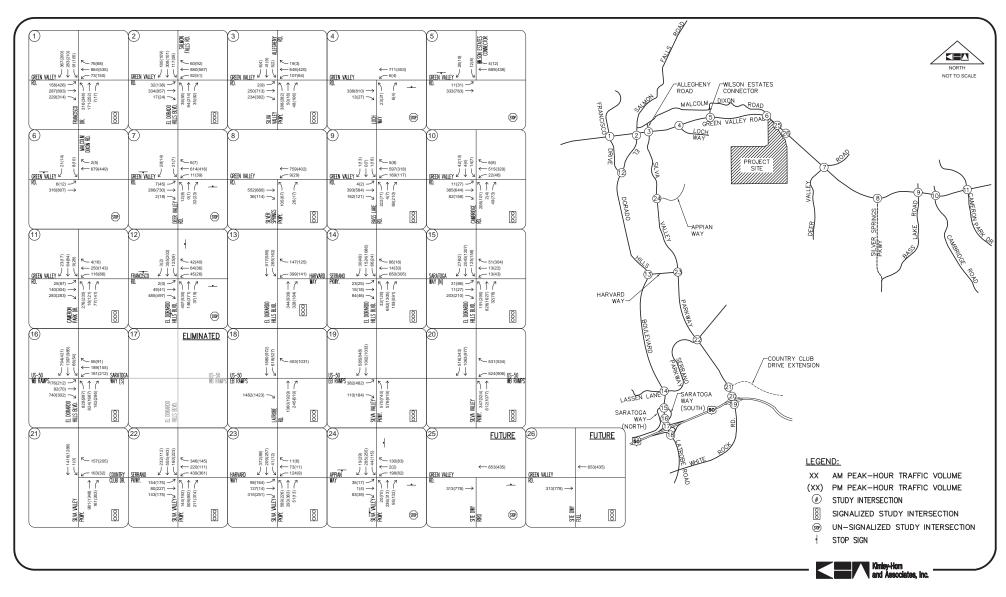


Table 5 – Existing plus Approved Projects (2018) Intersection Levels of Service

		Tueffie	AM Peak-H	lour	PM Peak-l	lour
#	Intersection	Traffic Control	Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Rd @ Francisco Dr	Signal	33.0	С	32.8	С
2	Green Valley Rd @ El Dorado Hills Blvd/Salmon Falls Rd	Signal	83.7	F	78.7	Е
3	Green Valley Rd @ Silva Valley Pkwy/Allegheny Rd	Signal	33.6	С	25.8	С
4	Green Valley Rd @ Loch Wy	TWSC*	24.0 (NBL)	С	32.3 (NBL)	D
5	Green Valley Rd @ Wilson Estates Connector	TWSC*	17.7 (SB)	С	17.6 (SB)	С
6	Green Valley Rd @ Malcolm Dixon Rd	TWSC*	16.5 (SB)	С	19.8 (SB)	С
7	Green Valley Road @ Deer Valley Rd	TWSC*	20.4 (SB)	С	25.2 (NB)	D
8	Green Valley Rd @ Silver Springs Pkwy	Signal	8.5	Α	7.8	Α
9	Green Valley Rd @ Bass Lake Rd	Signal	22.1	С	22.3	С
10	Green Valley Rd @ Cambridge Rd	Signal	18.6	В	21.0	С
11	Green Valley Rd @ Cameron Park Dr	Signal	27.6	С	31.7	С
12	El Dorado Hills Blvd @ Francisco Dr	AWSC	16.8	С	22.2	С
13	El Dorado Hills Blvd @ Harvard Wy	Signal	13.2	В	10.6	В
14	El Dorado Hills Blvd @ Serrano Pkwy	Signal	39.9	D	16.9	В
15	El Dorado Hills Blvd @ Saratoga Wy (North)	Signal	31.2	С	25.0	С
16	El Dorado Hills Blvd @ US-50 WB Ramps/Saratoga Wy (South)	Signal	28.1	C	29.9	С
17	Intersection Eliminated with Inte	rchange Red	construction			
18	Latrobe Rd @ US-50 EB Ramps	Signal	10.5	В	10.4	В
19	Silva Valley Pkwy @ US-50 EB Ramps	Signal	18.1	В	34.7	С
20	Silva Valley Pkwy @ US-50 WB Ramps	Signal	28.7	С	42.5	D
21	Silva Valley Pkwy @ Country Club Dr	Signal	9.7	Α	7.7	Α
22	Silva Valley Pkwy @ Serrano Pkwy	Signal	46.5	D	42.6	D
23	Silva Valley Pkwy @ Harvard Wy	Signal	36.0	D	17.3	В
24	Silva Valley Pkwy @ Appian Wy	AWSC	19.0	C	22.9	С
25	Green Valley Rd @ Site Access Dwy (Right-in/Right-out)		Dluc Draiast	Congris	os Only	
26	Green Valley Rd @ Site Access Dwy		Plus Project	Scenario	is Utily	
* Co	ntrol delay for worst minor approach (worst minor movement) for TWSC.	Bold = Substa	ndard per County	/		

EXISTING PLUS APPROVED PROJECTS (2018) PLUS PROPOSED PROJECT CONDITIONS

Peak-hour traffic associated with the proposed project was added to the Existing plus Approved Projects (2018) traffic volumes and levels of service were determined at the study intersections. Table 6 provides a summary of the intersection operating conditions for this analysis scenario. Figure 11 provides the AM and PM traffic volumes for this analysis scenario.

As indicated in Table 6, the study intersections operate from LOS A to LOS F during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in Appendix F.

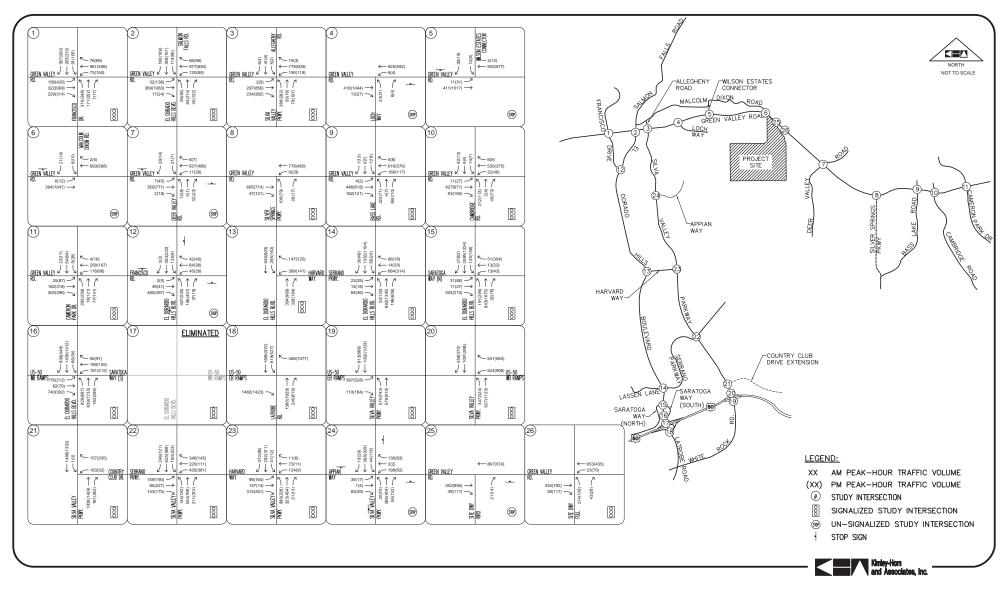


Table 6 – EPAP (2018) and EPAP (2018) plus Proposed Project Intersection Levels of Service

ш		Analysis	Traffic	AM Peak-l	lour	PM Peak-H	lour
#	Intersection	Scenario [†]	Control	Delay (sec)	LOS	Delay (sec)	LOS
1	Green Valley Rd @	EPAP	Cinnal	33.0	С	32.8	С
1	Francisco Dr	EPAP+PP	Signal	34.6	С	34.6	С
_	Green Valley Rd @	EPAP	Sir and	83.7	F	78.7	Е
2	El Dorado Hills Blvd/Salmon Falls Rd	EPAP+PP	Signal	108.0	F	108.1	F
2	Green Valley Rd @	EPAP	C' l	33.6	С	25.8	С
3	Silva Valley Pkwy/Allegheny Rd	EPAP+PP	Signal	46.7	D	42.9	D
4	Green Valley Rd @	EPAP	TMCC*	24.0 (NBL)	С	32.3 (NBL)	D
4	Loch Wy	EPAP+PP	TWSC*	36.8 (NBL)	Е	60.6 (NBL)	F
-	Green Valley Rd @	EPAP	T14/66*	17.7 (SB)	С	17.6 (SB)	С
5	Wilson Estates Connector	EPAP+PP	TWSC*	24.8 (SB)	С	26.1 (SB)	D
_	Green Valley Rd @	EPAP	TMCC*	16.5 (SB)	С	19.8 (SB)	С
6	Malcolm Dixon Rd	EPAP+PP	TWSC*	22.4 (SB)	С	30.8 (SB)	D
	Green Valley Road @	EPAP	*	20.4 (SB)	С	25.2 (NB)	D
7	Deer Valley Rd	EPAP+PP	TWSC*	22.7 (SB)	С	29.0 (NB)	D
	Green Valley Rd @	EPAP		8.5	Α	7.8	Α
8	Silver Springs Pkwy	EPAP+PP	Signal	8.9	Α	8.1	Α
_	Green Valley Rd @	EPAP		22.1	С	22.3	С
9	Bass Lake Rd	EPAP+PP	Signal	23.3	C	23.0	С
	Green Valley Rd @	EPAP		18.6	В	21.0	С
10	Cambridge Rd	EPAP+PP	Signal	19.3	В	22.1	С
	Green Valley Rd @	EPAP		27.6	С	31.7	С
11	Cameron Park Dr	EPAP+PP	Signal	30.8	С	34.9	С
	El Dorado Hills Blvd @	EPAP		16.8	С	22.2	С
12	Francisco Dr	EPAP+PP	AWSC	17.8	c	23.0	C
	El Dorado Hills Blvd @	EPAP		13.2	В	10.6	В
13	Harvard Wy	EPAP+PP	Signal	13.3	В	10.7	В
	El Dorado Hills Blvd @	EPAP		39.9	D	16.9	В
14	Serrano Pkwy	EPAP+PP	Signal	40.9	D	17.1	В
	El Dorado Hills Blvd @	EPAP		31.2	С	25.0	С
15	Saratoga Wy (North)	EPAP+PP	Signal	31.3	С	24.7	С
	El Dorado Hills Blvd @	EPAP		28.1	С	29.9	С
16	US-50 WB Ramps/Saratoga Wy (South)	EPAP+PP	Signal	29.0	С	30.2	С
						30.2	
17	Intersection El	iminated with	Interchange R	Reconfiguration			
	Latrobe Rd @	EPAP		10.5	В	10.4	В
18	US-50 EB Ramps	EPAP+PP	Signal	10.5	В	10.4	В
	Silva Valley Pkwy @	EPAP		18.1	В	34.7	С
19	US-50 EB Ramps	EPAP+PP	Signal	18.5	В	37.7	D
	Silva Valley Pkwy @	EPAP		28.7	С	42.5	D
20	US-50 WB Ramps	EPAP+PP	Signal	29.8	С	41.5	D
	Silva Valley Pkwy @	EPAP		9.7	A	7.7	A
21	Country Club Dr	EPAP+PP	Signal	9.8	A	8.2	A
	Silva Valley Pkwy @	EPAP		46.5	D	42.6	D
22	Serrano Pkwy	EPAP+PP	Signal	49.0	D	44.0	D
	Silva Valley Pkwy @	EPAP		36.0	D	17.3	В
23	Harvard Wy	EPAP+PP	Signal	39.2	D	17.7	В
	Silva Valley Pkwy @	EPAP		19.0	С	22.9	С
24	Appian Wy	EPAP+PP	AWSC	28.9	D	42.5	E
	Green Valley Rd @	EPAP+PP EPAP		Plus Project			L
25	Site Access Dwy (Right-in/Right-out)	EPAP+PP	TWSC*	10.8 (NBR)	В	18.5 (NBR)	С
	Green Valley Rd @	EPAP+PP	1 4430	Plus Project			
26	Site Access Dwy	EPAP+PP	Signal	9.2	A A	9.7	Α

CUMULATIVE (2025) CONDITIONS

Two approaches were used in the development of background traffic volumes for this analysis scenario.

First, for the twenty (20) study intersections that are not common with the study facilities found in the traffic study for the US-50 interchange with Silva Valley Parkway⁷, a straight line growth rate was calculated based on existing (1998) and 2025 model volumes. This growth rate was then applied to year 2013 volumes to approximate year 2025 conditions for these intersections. Second, for the six (6) intersections that are common with the study facilities found in the traffic study for the US-50 interchange with Silva Valley Parkway⁷, year 2025 traffic volumes were developed by interpolating between year 2020 and year 2030 conditions.

For all study intersections, traffic volumes were balanced as deemed appropriate based on the presence of intermediate driveways and/or cross-streets. Furthermore, in the cases where the Cumulative (2025) traffic volumes were forecasted to be less than the Existing plus Approved Projects (2018) volumes, the 2018 volumes were conservatively utilized.

Table 7 provides a summary of the intersection analysis and Figure 12 provides the AM and PM traffic volumes for this analysis scenario. As indicated in Table 7, the study intersections operate from LOS A to LOS F during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in Appendix G.

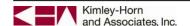
CUMULATIVE (2025) PLUS PROPOSED PROJECT CONDITIONS

As previously established, according to information provided by a representative of the County⁶, it is necessary to re-run the County's travel demand model by adding an additional 294 single-family dwelling units to the Traffic Analysis Zone (TAZ) in which the project is located to reflect the addition of the proposed project. As such, the County's travel demand model was updated to include the additional 294 single-family dwelling units within TAZ 335.

Due to the project's inclusion of age-restricted dwelling units, it was necessary to develop a rationale for determining the equivalent total single-family dwelling unit value for input into the travel demand model. As presented in Table 8, using the average ITE trip rates, the age-restricted units are anticipated to generate trips at a rate equal to 39 percent of the single-family rate (use of the Daily trip data is considered to be conservative as the AM and PM peak-hour trip rates for the age-restricted units are less than 30 percent of the single-family rates).

Because ITE guidance⁹ recommends the use of the land use data regression equation for both proposed residential land uses, Table 9 demonstrates that the age-restricted units are anticipated to generate trips at a rate equal to 49 percent of the single-family rate based on the regression equation data.

⁹ Figure 3.1, Page 10, *Trip Generation Handbook, 2nd Edition*, ITE.



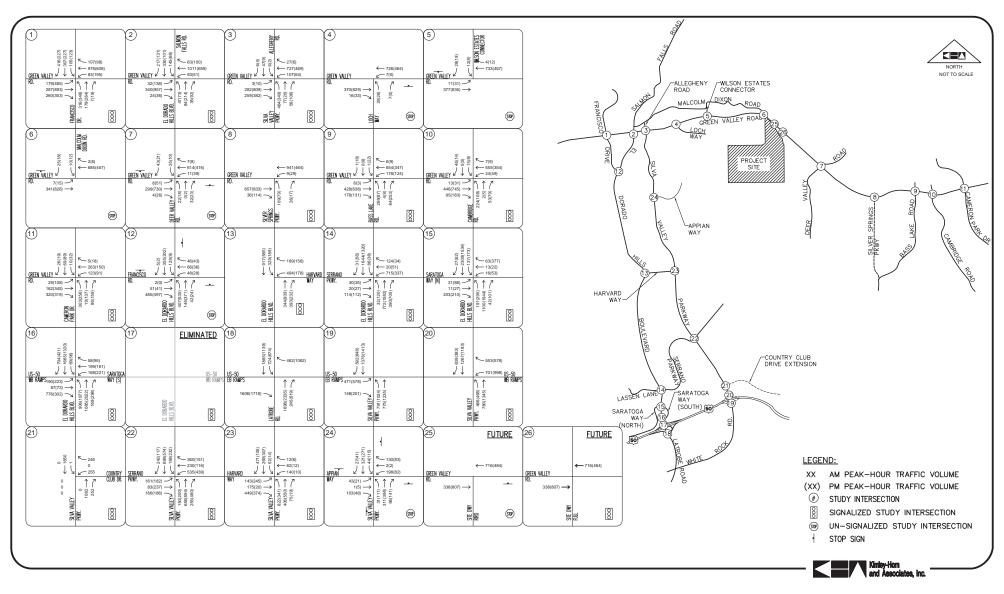


FIGURE 12

CUMULATIVE (2025) PEAK-HOUR TRAFFIC VOLUMES

EL DORADO HILLS, CA

Table 7 – Cumulative (2025) Intersection Levels of Service

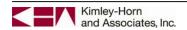
		Traffic	AM Peak-H	lour	PM Peak-l	lour
#	Intersection	Control	Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Rd @ Francisco Dr	Signal	35.9	D	37.7	D
2	Green Valley Rd @ El Dorado Hills Blvd/Salmon Falls Rd	Signal	120.5	F	90.6	F
3	Green Valley Rd @ Silva Valley Pkwy/Allegheny Rd	Signal	45.9	D	35.6	D
4	Green Valley Rd @ Loch Wy	TWSC*	26.5 (NBL)	D	35.4 (NBL)	Е
5	Green Valley Rd @ Wilson Estates Connector	TWSC*	19.2 (SB)	С	19.0 (SB)	С
6	Green Valley Rd @ Malcolm Dixon Rd	TWSC*	17.2 (SB)	С	20.6 (SB)	С
7	Green Valley Road @ Deer Valley Rd	TWSC*	21.1 (SB)	С	37.2 (NB)	E
8	Green Valley Rd @ Silver Springs Pkwy	Signal	10.3	В	9.3	Α
9	Green Valley Rd @ Bass Lake Rd	Signal	26.8	С	25.8	С
10	Green Valley Rd @ Cambridge Rd	Signal	21.7	С	25.3	С
11	Green Valley Rd @ Cameron Park Dr	Signal	32.1	С	38.4	D
12	El Dorado Hills Blvd @ Francisco Dr	AWSC	17.3	С	22.5	С
13	El Dorado Hills Blvd @ Harvard Wy	Signal	16.1	В	10.4	В
14	El Dorado Hills Blvd @ Serrano Pkwy	Signal	51.3	D	19.9	В
15	El Dorado Hills Blvd @ Saratoga Wy (North)	Signal	32.4	С	51.8	D
16	El Dorado Hills Blvd @ US-50 WB Ramps/Saratoga Wy (South)	Signal	33.9	С	43.9	D
17	Intersection Eliminated with Inte	rchange Rec	onfiguration			
18	Latrobe Rd @ US-50 EB Ramps	Signal	17.0	В	24.4	С
19	Silva Valley Pkwy @ US-50 EB Ramps	Signal	28.4	С	53.2	D
20	Silva Valley Pkwy @ US-50 WB Ramps	Signal	56.4	Е	70.6	Е
21	Silva Valley Pkwy @ Country Club Dr	Signal	16.1	В	16.2	В
22	Silva Valley Pkwy @ Serrano Pkwy	Signal	53.8	D	60.1	Е
23	Silva Valley Pkwy @ Harvard Wy	Signal	69.9	Е	24.1	С
24	Silva Valley Pkwy @ Appian Wy	AWSC	35.6	Е	54.3	F
25	Green Valley Rd @ Site Access Dwy (Right-in/Right-out)		Dius Drainst	Cooperia	os Onlu	
26	Green Valley Rd @ Site Access Dwy		Plus Project	Scenario	is Utily	
* Co	ntrol delay for worst minor approach (worst minor movement) for TWSC.	Bold = Substa	ndard per County	/		

Table 8 – Trip Rate Comparison (ITE 9th Edition Average Rate)

Land Use (ITE Code)	ITE Trip Rates				
Land Ose (TE Code)	Daily	AM	PM		
Single-Family Detached Housing (210)	9.52	0.75	1.00		
Senior Adult Housing-Detached (251)	3.68	0.22	0.27		
% of Single-Family (210):	39%	29%	27%		

Table 9 – Trip Rate Comparison (ITE 9th Edition Regression Equation)

Land Use (ITE Code)	ITE Trip Rates				
Land Use (ITE Code)	Daily	AM	PM		
Single-Family Detached Housing (210)	9.23	0.72	0.91		
Senior Adult Housing-Detached (251)	4.50	0.36	0.40		
% of Single-Family (210):	49%	49%	44%		



It is acknowledged that previous documentation¹⁰ on the topic illustrates that age-restricted single-family homes "generate 63% fewer trips than standard single-family homes...". Nevertheless, we utilized more recent, conservative data. As such, using a 50 percent equivalency factor (based on the regression equation generated trip rate, rounded up from 49 percent to 50 percent), each age-restricted dwelling unit would equate to 0.50 single-family dwelling units, resulting in consideration for up to 524 single-family dwelling units (444+0.5*160). Based on this logic, it was determined that 294 single family dwelling units were required to be added to TAZ 335⁶.

Model runs both without and with these additional units were generated, and the difference (the "delta") between the runs was added to the Cumulative (2025) traffic volumes to establish conditions for this analysis scenario. Levels of service were then determined at the study intersections. Table 10 provides a summary of the intersection analysis and Figure 13 provides the AM and PM traffic volumes for this analysis scenario.

As indicated in Table 10, the study intersections operate from LOS A to LOS F during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in Appendix H.

IMPACTS AND MITIGATION

Standards of Significance

Project impacts were determined by comparing conditions with the proposed project to those without the project. Impacts for intersections are created when traffic from the proposed project forces the LOS to fall below a specific threshold. The County's standards¹¹ specify the following:

"Level of Service (LOS) for County-maintained roads and State highways within the unincorporated areas of the County shall not be worse than <u>LOS E in the Community Regions</u> or <u>LOS D in the Rural Centers and Rural Regions</u>..." (El Dorado County General Plan Policy TC-Xd) The majority of the study facilities are located within the El Dorado Hills Community Region.

"If a project causes the peak-hour level of service...on a County road or State highway that would otherwise meet the County standards (without the project) to exceed the [given] values, then the impact shall be considered significant."

"If any county road or state highway fails to meet the [given] standards for peak hour level of service...under existing conditions, and the project will 'significantly worsen' conditions on the road or highway, then the impact shall be considered significant." According to General Plan Policy TC- Xe¹², 'significantly worsen' is defined as "a 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or the addition of 100 or more daily trips, or the addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour."

The Caltrans District 3 standard of significance was applied to intersections at the El Dorado Hills Boulevard and Silva Valley Parkway interchanges. The following LOS requirement was used for Caltrans facilities:

"The District 3 standard for average delay at signalized intersections, in most areas, is LOS D on an hourly basis, or LOS E for the peak 15 minutes. For all-way stop intersections and roundabouts, this standard should be used for each approach... For signals in high speed areas, the standard is LOS C on an hourly basis, or LOS D for the peak 15 minutes.¹³"

The freeway ramps are not located in high speed areas, therefore, the **LOS E** threshold for the peak 15 minutes should apply to Caltrans facilities.

¹³ Email from Teresa Limon, Caltrans, to Jennifer Maxwell, El Dorado County DOT, September 3, 2008.



 $^{^{10}\,}$ Letter from Michael McDougall, MJM Properties, to El Dorado County Board of Supervisors, September 16, 2008.

¹¹ Traffic Impact Study Protocols and Procedures, El Dorado County Department of Transportation, June 2008.

¹² El Dorado County General Plan, Transportation and Circulation Element, July 2004.

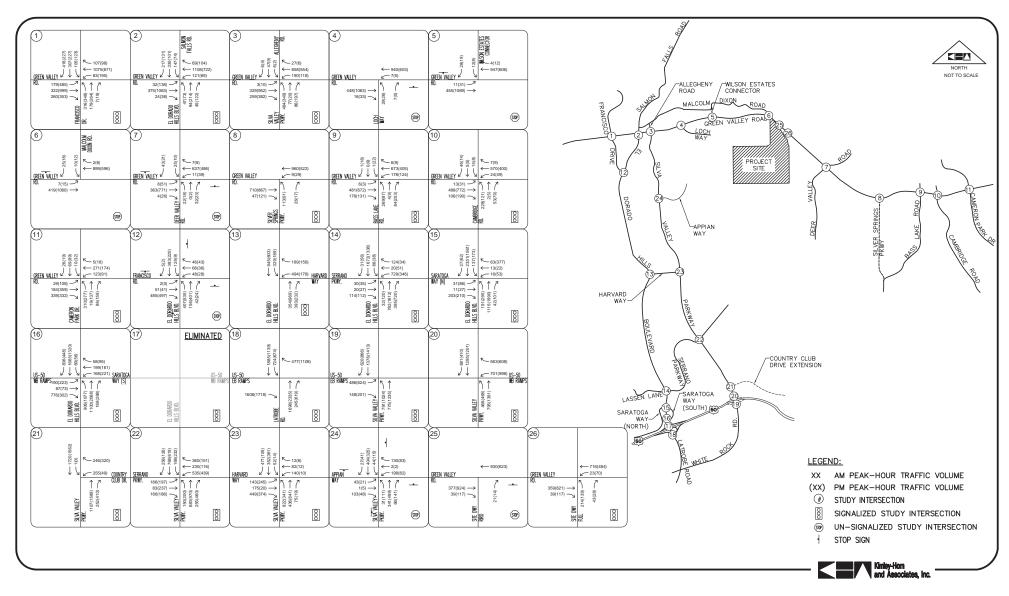


FIGURE 13

CUMULATIVE (2025) PLUS PROPOSED PROJECT PEAK-HOUR TRAFFIC VOLUMES

EL DORADO HILLS, CA

Table 10 – Cumulative (2025) and Cumulative (2025) plus Proposed Project Intersection Levels of Service

ш	la la constitución de la constit	Analysis	Traffic	AM Peak-H	lour	PM Peak-H	lour
#	Intersection	Scenario [†]	Control	Delay (sec)	LOS	Delay (sec)	LOS
1	Green Valley Rd @	Cum	Cienel	35.9	D	37.7	D
1	Francisco Dr	Cum+PP	Signal	37.9	D	40.5	D
2	Green Valley Rd @	Cum	Cianal	120.5	F	90.6	F
2	El Dorado Hills Blvd/Salmon Falls Rd	Cum+PP	Signal	145.4	F	120.9	F
2	Green Valley Rd @	Cum	Cianal	45.9	D	35.6	С
3	Silva Valley Pkwy/Allegheny Rd	Cum+PP	Signal	65.8	Е	53.4	D
4	Green Valley Rd @	Cum	TWSC*	26.5 (NBL)	D	35.4 (NBL)	E
4	Loch Wy	Cum+PP	TWSC	42.3 (NBL)	Е	70.3 (NBL)	F
5	Green Valley Rd @	Cum	TWSC*	19.2 (SB)	С	19.0 (SB)	С
Э	Wilson Estates Connector	Cum+PP	TWSC	27.4 (SB)	D	28.8 (SB)	D
6	Green Valley Rd @	Cum	TWSC*	17.2 (SB)	С	20.6 (SB)	С
U	Malcolm Dixon Rd	Cum+PP	10030	23.7 (SB)	С	32.7 (SB)	D
7	Green Valley Road @	Cum	TWSC*	21.1 (SB)	С	37.2 (NB)	E
,	Deer Valley Rd	Cum+PP	TWSC	23.6 (SB)	С	46.1 (NB)	E
8	Green Valley Rd @	Cum	Signal	10.3	В	9.3	Α
0	Silver Springs Pkwy	Cum+PP	Signal	11.0	В	10.4	Α
9	Green Valley Rd @	Cum	Signal	26.8	С	25.8	С
9	Bass Lake Rd	Cum+PP	Signal	28.7	С	26.5	С
10	Green Valley Rd @	Cum	Signal	21.7	С	25.3	С
10	Cambridge Rd	Cum+PP	Jigitai	22.2	С	27.9	С
11	Green Valley Rd @	Cum	Signal	32.1	С	38.4	D
	Cameron Park Dr	Cum+PP	Signai	35.6	D	43.0	D
12	El Dorado Hills Blvd @	Cum	AWSC	17.3	С	22.5	С
12	Francisco Dr	Cum+PP	AWSC	18.5	С	23.3	С
13	El Dorado Hills Blvd @	Cum	Signal	16.1	В	10.4	В
	Harvard Wy	Cum+PP		16.2	В	10.5	В
14	El Dorado Hills Blvd @	Cum	Signal	51.3	D	19.9	В
- '	Serrano Pkwy	Cum+PP	0.ga.	54.1	D	20.3	С
15	El Dorado Hills Blvd @	Cum	Signal	32.4	С	51.8	D
	Saratoga Wy (North)	Cum+PP	0.8	34.2	С	51.5	D
16	El Dorado Hills Blvd @	Cum	Signal	33.9	С	43.9	D
	US-50 WB Ramps/Saratoga Wy (South)	Cum+PP	5.8	33.5	С	43.9	D
17	Intersection El	iminated with	Interchange R	Reconfiguration			
	Latrobe Rd @	Cum		17.0	В	24.4	С
18	US-50 EB Ramps	Cum+PP	Signal	17.0	В	24.3	c
	Silva Valley Pkwy @	Cum		28.4	C	53.2	D
19	US-50 EB Ramps	Cum+PP	Signal	28.9	С	70.5	E
	Silva Valley Pkwy @	Cum		56.4	E	70.6	E
20	US-50 WB Ramps	Cum+PP	Signal	59.8	E	74.6	E
	Silva Valley Pkwy @	Cum		16.1	В	16.2	В
21	Country Club Dr	Cum+PP	Signal	15.4	В	17.5	В
	Silva Valley Pkwy @	Cum		53.8	D	60.1	Е
22	Serrano Pkwy	Cum+PP	Signal	57.4	Е	63.0	Е
	Silva Valley Pkwy @	Cum		69.9	E	24.1	C
23	Harvard Wy	Cum+PP	Signal	77.1	E	25.5	С
	Silva Valley Pkwy @	Cum		35.6	E	54.3	F
24	Appian Wy	Cum+PP	AWSC	62.4	F	95.1	F
	Green Valley Rd @	Cum		Plus Project			
25	Site Access Dwy (Right-in/Right-out)	Cum+PP	TWSC*	11.0 (NBR)	В	19.2 (NBR)	С
	Green Valley Rd @	Cum		Plus Project			
26	Site Access Dwy	Cum+PP	Signal	10.9	В	12.6	В
† Cun	n = Cumulative (2025), Cum+PP = Cumulative (2025) plus F						
	ntrol delay for worst minor approach (worst minor movem			dard per County			

Impacts and Mitigation

Existing (2013) plus Proposed Project Conditions

As reflected in Table 4, the addition of the proposed project results in three (3) significant impact as defined by the County. The following is a discussion of the impact and its associated mitigation.

Impacts:

- II. Intersection #2, Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
 As shown in Table 4, this intersection operates at LOS E during the AM peak-hour without the project, and the project results in LOS F during the AM peak-hour. This is a significant impact.
- Intersection #12, El Dorado Hills Boulevard @ Francisco Drive
 As shown in Table 4, this intersection operates at LOS F during the AM and PM peak-hours without the project, and the project contributes more than 10 peak-hour trips to the intersection during both peak-hours (Figure 5). This is a significant impact.

Mitigations:

- M1. Intersection #2, Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
 The significant impact at this intersection during the AM peak-hour can be mitigated by modifying the lane configuration on the southbound approach. The modified southbound lane configuration will result in the following: one left-turn lane, one through lane, and one right-turn lane. The existing right-of-way and pavement widths along Salmon Falls Road, immediately north of Green Valley Road, appear to provide adequate space to accommodate the additional southbound approach lane. As shown in Table 11, this mitigation measure results in the intersection operating at LOS D during the AM peak-hour. Therefore, this impact is less than significant.
- M2. Intersection #12, El Dorado Hills Boulevard @ Francisco Drive

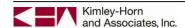
 The significant impact at this intersection during the AM and PM peak-hours can be mitigated with the County's planned 2013 intersection improvement project. The County project will include the addition of an eastbound channelized right-turn lane and a southbound receiving lane. As shown in Table 11, this mitigation measure results in the intersection operating at LOS B and LOS C during the AM and PM peak-hours, respectively. Therefore, this impact is less than significant.

Analysis worksheets for this scenario are provided in Appendix I.

Table 11 – Intersection Levels of Service – Existing (2013) plus Proposed Project Mitigated Conditions

		Analysis	Traffic	AM Peak-Hour		PM Peak-Hour	
#	# Intersection	Scenario [†]	Control	Delay (seconds)	LOS	Delay (seconds)	LOS
	2 Green Valley Rd @ Exist. + PP Exist. + PP (Mit) Exist. + PP (Mit)	Exist.		63.8	E	43.4	D
2		Exist. + PP	Signal	87.7	F	77.8	Е
		Exist. + PP (Mit)		45.3	D	61.8	Е
		Exist.		87.5	F	68.9	F
12	El Dorado Hills Blvd @ Francisco Dr	Exist. + PP	Signal	110.7	F	78.5	F
		Exist. + PP (Mit)		14.5	В	19.6	С
+ Exi	st. = Existing (2013), Exist. + PP = Existing (2013)	3) plus Proposed Projec	t, Mit = Mitig	ated. Bold = Sul	ostandard po	er County	

The aforementioned significant impacts and associated mitigation measures represent the effect of the full proposed project (604-units) added to Existing (2013). It is important to note that the necessity for, and the timing of the various mitigations measures could differ from what is presented based on potential phased project implementation.



Existing plus Approved Projects (2018) plus Proposed Project Conditions

As reflected in Table 6, the addition of the proposed project results in two (2) significant impacts as defined by the County. The following is a discussion of the impact and its associated mitigation.

Impacts:

- Intersection #2, Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
 As shown in Table 6, this intersection operates at LOS F during the AM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during the AM peak-hour (Figure 6) and results in LOS F during the PM peak-hour. This is a significant impact.
- Intersection #4, Green Valley Road @ Loch Way
 As shown in Table 6, this intersection operates at LOS F during the PM peak-hour with the project.
 This is a significant impact.

Mitigation:

M3. Intersection #2, Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
The significant impact at this intersection during the AM and PM peak-hours can be mitigated by modifying the lane configuration on the southbound approach and changing the northbound and southbound signal phasing from split-phased to concurrent protected left turns. The modified southbound lane configuration will result in the following: one left-turn lane, one through lane, and one right-turn lane. The existing right-of-way and pavement widths along Salmon Falls Road, immediately north of Green Valley Road, appear to provide adequate space to accommodate the additional southbound approach lane. As shown in Table 12, this mitigation measure results in the intersection operating at LOS E during the AM and PM peak-hours. Therefore, this impact is less than significant. The proposed project should contribute its proportionate share toward these improvements.

M4. Intersection #4, Green Valley Road @ Loch Way

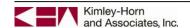
The significant impact at this intersection during the PM peak-hour can be mitigated by adding a two-way left-turn lane along Green Valley Road in the immediate vicinity of the intersection. The addition of a two-way left-turn lane would provide a left-turn lane for westbound left-turning traffic and would allow for vehicles making a northbound left-turn movement to clear eastbound traffic and wait for a gap in westbound traffic. As shown in Table 12, this mitigation measure results in the intersection operating at LOS C during the PM peak-hour. Therefore, *this impact is less than significant*.

Table 12 – Intersection Levels of Service – Existing plus Approved Projects (2018) plus Proposed Project Mitigated Conditions

		Analysis	Traffic	AM Peak	-Hour	PM Peak-Hour	
#	Intersection	Scenario [†]	Control	Delay (seconds)	LOS	Delay (seconds)	LOS
		EPAP		83.7	F	78.7	Е
2	Green Valley Rd @ El Dorado Hills Blvd/Salmon Falls Rd	EPAP + PP	Signal	108.0	F	108.1	F
	Li Dorado Hills Bivu/Saimon Falls Nu	EPAP + PP (Mit)		59.8	E	77.8	Е
		EPAP		24.0 (NBL)	С	32.3 (NBL)	D
4	4 Green Valley Rd @ Loch Way	EPAP + PP	TWSC*	36.8 (NBL)	E	60.6 (NBL)	F
		EPAP + PP (Mit)		17.4 (NBL)	С	20.2 (NBR)	С

Control delay for worst minor approach (worst minor movement) for TWSC. Bold = Substandard per County

Analysis worksheets for this scenario are provided in Appendix I.



[†] EPAP = Existing plus Approved Projects (2018), EPAP + PP = Existing plus Approved Projects (2018) plus Proposed Project, Mit = Mitigated

California

The aforementioned significant impacts and associated mitigation measures represent the effect of the full proposed project (604-units) added to EPAP (2018) Conditions. It is important to note that the necessity for, and the timing of the various mitigations measures could differ from what is presented based on potential phased project implementation.

Cumulative (2025) plus Proposed Project Conditions

As reflected in Table 10, the addition of the proposed project results in three (3) significant impacts as defined by the County. The following is a discussion of each of these impacts and their associated mitigations.

Impacts:

- Intersection #2, Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
 As shown in Table 10, this intersection operates at LOS F during the AM and PM peak-hours without the project, and the project contributes more than 10 peak-hour trips to the intersection during both peak-hours. This is a significant impact.
- Intersection #4, Green Valley Road @ Loch Way
 As shown in Table 10, this intersection operates at LOS F during the PM peak-hour with the project. This is a significant impact.
- Intersection #7, Green Valley Road @ Deer Valley Road
 As shown in Table 10, this intersection operates at LOS E during the PM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during the PM peak-hour. This is a significant impact.
- Intersection #24, Silva Valley Parkway @ Appian Way
 As shown in Table 10, this intersection operates at LOS F during the PM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during the PM peak-hour and results in LOS F during the AM peak-hour. This is a significant impact.

Mitigation:

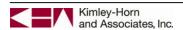
M5. Intersection #2, Green Valley Road @ El Dorado Hills Boulevard

The significant impact at this intersection during the AM and PM peak-hours can be mitigated by modifying the lane configuration on the southbound approach, changing the northbound and southbound signal phasing from split-phased to concurrent protected left turns, and with an additional through lane in each direction along Green Valley Road. As shown in Table 13, this mitigation measure results in the intersection operating at LOS C and LOS D during the AM and PM peak-hours, respectively. Therefore, *this impact is less than significant*. The proposed project should contribute its proportionate share toward these improvements.

It is important to note that the "Green Valley Road Widening from Salmon Falls Road to Deer Valley Road" project is identified in the current County Capital Improvement Program (CIP) as a "Future" project that "will be built beyond fiscal year 2020/2021."

M6. Intersection #4, Green Valley Road @ Loch Way

The significant impact at this intersection during the PM peak-hour can be mitigated by adding a two-way left-turn lane along Green Valley in the immediate vicinity of the intersection. The addition of a two-way left-turn lane would provide a left-turn lane for westbound left-turning traffic and would allow for vehicles making a northbound left-turn movement to clear eastbound traffic and wait for a gap in westbound traffic. As shown in Table 13, this mitigation measure results in the intersection operating at LOS C during the PM peak-hour. Therefore, *this impact is less than significant*.



M7. Intersection #7, Green Valley Road @ Deer Valley Road

The significant impact at this intersection during the PM peak-hour can be mitigated with the addition of traffic signal control. As shown in Table 13, this mitigation measure results in the intersection operating at LOS A during the PM peak-hour. Therefore, *this impact is less than significant*. The proposed project should contribute its proportionate share toward these improvements.

M8. Intersection #24, Silva Valley Parkway @ Appian Way

The significant impact at this intersection during the PM peak-hour can be mitigated by the addition of traffic signal control. As shown in Table 13, this mitigation measure results in the intersection operating at LOS B and LOS A during the AM and PM peak-hours, respectively. Therefore, *this impact is less than significant*. The proposed project should contribute its proportionate share toward these improvements.

Analysis worksheets for this scenario are provided in Appendix I.

Table 13 – Intersection Levels of Service – Cumulative (2025) plus Proposed Project Mitigated Conditions

		Analysis	Traffic	AM Peak-Hour		PM Peak	-Hour
#	Intersection	Analysis Scenario ⁺	Control	Delay (seconds)	LOS	Delay (seconds)	LOS
	Green Valley Rd @ El Dorado Hills Blvd/Salmon Falls Rd	Cum.		120.5	F	90.6	F
2		Cum. + PP	Signal	145.4	F	120.9	F
		Cum. + PP (Mit)	Ī	34.2	С	36.8	D
	Green Valley Rd @ Loch Way	Cum.		26.5 (NBL)	D	35.4 (NBL)	Е
4		Cum. + PP	TWSC*	42.3 (NBL)	Е	70.3 (NBL)	F
		Cum. + PP (Mit)		18.1 (NBL)	С	20.8 (NBR)	С
		Cum.	TWSC*	21.1 (SB)	С	37.2 (NB)	E
7	Green Valley Rd @ Deer Valley Rd	Cum. + PP	TWSC	23.6 (SB)	С	46.1 (NB)	E
	Deer valley ku	Cum. + PP (Mit)	Signal	4.5	Α	3.5	А
		Cum.	A) A/C C	35.6	E	54.3	F
24	Silva Valley Pkwy @	Cum. + PP	AWSC	62.4	F	95.1	F
	Appian Way	Cum. + PP (Mit)	Signal	11.5	В	9.1	А

* Control delay for worst minor approach (worst minor movement) for TWSC. Bold = Substandard per County

OTHER CONSIDERATIONS

Peak-Hour Traffic Signal Warrant Evaluation

A planning level assessment of the need for traffic signalization was performed for the un-signalized study intersections. This evaluation was performed consistently with the peak-hour warrant methodologies noted in Section 4C of the *California Manual on Uniform Traffic Control Devices (CMUTCD), 2012 Edition.* A summary of the peak-hour warrant results are presented in Table 14.

⁺ Cum. = Cumulative (2025), Cum. + PP = Cumulative (2025) plus Proposed Project, Mit = Mitigated

Table 14 – Traffic Signal Warrant Analysis Results

				Analysis	Scenario		
#	Intersection	Existing (2013)	Existing (2013) plus PP	EPAP (2018)	EPAP (2018) plus PP	Cum (2025)	Cum (2025) plus PP
4	Green Valley Rd @ Loch Wy	No / No	No / No	No / No	No / No	No / No	No / No
5	Green Valley Rd @ Wilson Connector	No / No	No / No	No / No	No / No	No / No	No / No
6	Green Valley Rd @ Malcolm Dixon Rd	No / No	No / No	No / No	No / No	No / No	No / No
7	Green Valley Rd @ Deer Valley Rd	No / No	No / No	No / No	No / No	No / No	No / No
12	El Dorado Hills Blvd @ Francisco Dr	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
24	Silva Valley Pkwy @ Appian Way	No / No	No / No	Yes / No	Yes / No	Yes / No	Yes / Yes
25	Green Valley Rd @ Site Access Dwy		No / No		No / No		No / No
26	Green Valley Rd @ Site Access Dwy		No / No		No / Yes		Yes / Yes

Results are presented in AM / PM format.

Note: Peak-hour warrant is satisfied if Condition A or B is satisfied.

As shown in Table 14, the addition of the proposed project does not result in the peak-hour signal warrant being satisfied. Detailed results of this analysis are presented in Appendix J.

Site Plan, Access, and On-site Circulation Evaluation

The site plan for the proposed project (Figure 2) was qualitatively reviewed for general access and on-site circulation. According to the site plan, primary access to the site will be provided via two driveways along Green Valley Road, one right-in/right-out, and one full access. All other access points are proposed to be emergency use only. Detailed level of service and delay data were previously reported for the Green Valley Road intersections (Intersections #25 and #26). The combination of these access points, as well as the on-site circulation system appears to provide adequate access to/from Green Valley Road.

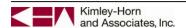
As shown in Table 4, Table 6, and Table 10, the site access points along Green Valley Road (Intersections #25 and #26) are anticipated to operate at LOS A or B for all analysis scenarios. The documented analyses assumed the following baseline intersection geometry at the full access driveway (Intersection #26): traffic signal control, a westbound left-turn lane into site, and a restriction on the eastbound-to-westbound u-turn movement. As demonstrated in Table 14, Intersection #25 (right-in/right-out site driveway) does not satisfy the peak-hour traffic signal warrant under any scenario.

In addition, Fire Safe Regulations¹⁴ state that on-site roadways shall "provide for safe access for emergency wildland fire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a wildfire emergency..." All project roadways shall be designed and constructed in accordance with these requirements.

Preliminary Traffic Safety Evaluation

According to the County's 2011 *Accident Location Study*¹⁵, several study area sites (i.e., intersections and roadway segments) experienced three (3) or more accidents during a three-year period between January 1, 2009, and December 31, 2011. According to the Study, these sites were selected for investigation and determination of corrective action(s). Table 15 provides a summary of the study area sites and their selected actions.

¹⁵ Annual Accident Location Study 2011, County of El Dorado Department of Transportation, May 18, 2012.



¹⁴ Fire Safe Regulations, Title 14 Natural Resources, Division 1.5 Department of Forestry, Chapter 7 – Fire Protection, Subchapter 2 SRA Safe Regulations, Article 2 Emergency Access, El Dorado County Building Department.

Table 15 - Project Area Sites Selected for Investigation

Site #	Location Description	Accident Rate ⁺	Identified Action
13	El Dorado Hills Blvd, US 50 On/Off Ramps	1.07	Pending Improvements
14	El Dorado Hills Blvd, North of Lassen/Serrano Pkwy	0.25	None Required
15	El Dorado Hills Blvd, South of Wilson Blvd	0.12	None Required
16	El Dorado Hills Blvd, at Crown Dr	0.24	None Required
23	Green Valley Rd, vicinity of Silva Valley Pkwy	0.68	None Required
24	Green Valley Rd, vicinity of Deer Valley Rd (west)	0.67	None Required
25	Green Valley Rd, vicinity of Bass Lake Rd	0.33	None Required
59	Silva Valley Pkwy, vicinity of Darwin Wy	0.60	None Required

Source: Annual Accident Location Study 2011, County of El Dorado Department of Transportation, May 18, 2012.

† # Accidents per Million Vehicles (MV) for single sites (intersections/curves), # Accidents per Million Vehicle Miles (MVM) for roadway sections.

According to the *Study*, seven sites "do not require further review at this time. However, these sites will continue to be monitored and any subsequent increase in the frequency of accidents may necessitate further review and analysis." One site has a pending improvement and it is anticipated that, "upon completion, [this] improvement will substantially reduce the number of accidents."

Intersection Queuing Evaluation

Vehicle queuing for seven (7) intersections was evaluated. For the queuing analysis, the anticipated vehicle queues for critical movements at these intersections were evaluated. The calculated vehicle queues were compared to actual or anticipated vehicle storage/segment lengths. Results of the queuing evaluation are presented in Table 16. Analysis sheets that include the anticipated vehicle queues are presented in Appendices B, C, and E-I. As presented in Table 16, the addition of the proposed project adds additional queuing to several of the study locations.

Bicycle and Pedestrian Facilities Evaluation

According to Chapter 5 of the *El Dorado County Bicycle Transportation Plan*, Class II Bike Lanes are proposed for Green Valley Road, Francisco Drive, and El Dorado Hills Boulevard in the vicinity of the project site. In addition, Class III Bike Routes are proposed for Francisco Drive and Salmon Falls Road/Lakehills Drive north of Green Valley Road. A Class I Bike Path is also proposed for El Dorado Hills Boulevard, south of Francisco Drive.

While the project will not result in removal of a bikeway/bike lane or prohibition of implementation of the facilities identified in the *Plan*, it is required to include pedestrian/bicycle paths connecting to adjacent commercial, research and development, or industrial projects and any schools, parks, or other public facilities. The proposed project will be required to construct on-site roadway and pedestrian facilities in accordance with County design guidelines. These on-site pedestrian and bicycle facilities will connect the project with the future adjacent Class II Bike Lanes along Green Valley Road (by others). Through this connection to the proposed bike lane network, the project will provide continuity with adjacent projects, schools, parks, and other public facilities.

Table 16 – Intersection Queuing Evaluation Results for Select Locations

		AM Pea	k-Hour	PM Pea	k-Hour
Intersection / Analysis Scenario	Movement	Available	95 th %	Available	95 th %
, , , , , , , , , , , , , , , , , , , ,		Storage (ft)	Queue (ft)	Storage (ft)	Queue (ft)
#2, Green Valley Rd @ El Dorado Hills Blvd	WBL				
-	kisting (2013)		99		75
Existing plus Proposed P	roject (2013)		276		212
Existing plus Proposed Project (2013	3) (Mitigated)		233		208
	EPAP (2018)		169		150
EPAP plus Proposed P	roject (2018)	105	242	105	203
EPAP plus Proposed Project (2018			185		191
	ılative (2025)		156		162
Cumulative plus Proposed P			210		215
Cumulative plus Proposed Project (2025) (Mitigated)		131		116
#3, Green Valley Rd @ Silva Valley Pkwy	WBL				
	kisting (2013)		96		62
Existing plus Proposed P	roject (2013)		112		74
	EPAP (2018)	350	136	350	118
EPAP plus Proposed P	roject (2018)	330	285	330	218
Cumu	ılative (2025)		170		173
Cumulative plus Proposed P	roject (2025)		357		286
#17, El Dorado Hills Blvd @ US-50 WB Ramps	WBR [⁺]				
Ех	kisting (2013)		57		360
Existing plus Proposed P		185	63	185	431
Existing plus Proposed Project (2013			95		336
	EPAP (2018) ⁺				
EPAP plus Proposed Pr					
	ative (2025) ⁺				
Cumulative plus Proposed Pr	-				
	SBR				201
	kisting (2013)		123		201
Existing plus Proposed P			204 0 (free)		107
Existing plus Proposed Project (2013	EPAP (2018)**	100 [*]	0 (free)	100 [*]	0 (free) 0 (free)
EPAP plus Proposed Pro		100	0 (free)	100	0 (free)
	ative (2025)**		0 (free)		0 (free)
Cumulo	11110 (2023)				o (iicc)
			0 (free)		0 (free)
Cumulative plus Proposed Pro	oject (2025)**		0 (free)		0 (free)
Cumulative plus Proposed Pro #18, Latrobe Rd. @ US-50 EB Ramps	oject (2025) ⁺⁺ SBL				
Cumulative plus Proposed Pro #18, Latrobe Rd. @ US-50 EB Ramps Ex	sBL kisting (2013)		0 (free) 140 161		0 (free) 88 98
Cumulative plus Proposed Pro #18, Latrobe Rd. @ US-50 EB Ramps	sBL kisting (2013)	252	140	250	88
Cumulative plus Proposed Pro #18, Latrobe Rd. @ US-50 EB Ramps Ex	sBL disting (2013) roject (2013) EPAP (2018)	350	140 161	350	88 98
Cumulative plus Proposed Pro #18, Latrobe Rd. @ US-50 EB Ramps Ex Existing plus Proposed P EPAP plus Proposed P	sBL disting (2013) roject (2013) EPAP (2018)	350	140 161 312	350	88 98 259

Source: Highway Capacity Manual (HCM) 2000 methodology per Synchro[©] v8.

*Intersection approach with available storage length equal to segment length, †Becomes EBL at Intersection #16 with

interchange reconfiguration. ** Becomes SBR at Intersection #16 with interchange reconfiguration.

Table 16 – Intersection Queuing Evaluation Results for Select Locations (continued)

		AM Pea	k-Hour	PM Pea	k-Hour
Intersection / Analysis Scenario	Movement	Available	95 th %	Available	95 th %
		Storage (ft)	Queue (ft)	Storage (ft)	Queue (ft)
#19, Silva Valley Pkwy @ US-50 EB Ramps	EBL				
E)	xisting (2013)				
Existing plus Proposed P	roject (2013)				
	EPAP (2018)	750	183	750	349
EPAP plus Proposed P	<u>, , , , , , , , , , , , , , , , , , , </u>	/30	204	/30	390
	ılative (2025)		305		455
Cumulative plus Proposed P	roject (2025)		318		503
	NBL			1	
	xisting (2013)				
Existing plus Proposed P					
	EPAP (2018)	350	207	350	390
EPAP plus Proposed P	roject (2018)	330	207	330	390
	ılative (2025)		375		584
Cumulative plus Proposed P	roject (2025)		375		584
#20, Silva Valley Pkwy @ US-50 WB Ramps	WBR		T.		
	xisting (2013)				
Existing plus Proposed P					
	EPAP (2018)	360	121	360	465
EPAP plus Proposed P			132		496
	ulative (2025)		304		637
Cumulative plus Proposed P	<u> </u>		314		663
_	SBR				
	xisting (2013)				
Existing plus Proposed P			2.4		422
EDAD white Drawn and D	EPAP (2018)	85	24	85	132
EPAP plus Proposed P	<u>, , , , , , , , , , , , , , , , , , , </u>		36		133
	ulative (2025)		0 (free)		0 (free)
Cumulative plus Proposed P	<u> </u>		0 (free)		0 (free)
#26, Green Valley Rd @ Site Access Dwy	WBL				1
	kisting (2013)		12		25
Existing plus Proposed P			12		35
EDAD alve Dranged D	EPAP (2018)	100 ⁺	12	100 ⁺	- FC
EPAP plus Proposed P	roject (2018) ilative (2025)	•	12		56
Cumulative plus Proposed P		•	12		77
Cumulative plus Proposed P		ala ©0	12		77

Source: Highway Capacity Manual (HCM) 2000 methodology per Synchro® v8.

*Intersection approach with available storage length equal to segment length. ** Becomes dual left-turn lanes with proposed mitigation. * Assumed initial geometry.

CONCLUSIONS

Significant findings of this study include:

- The proposed project is estimated to generate 4,931 total daily trips, with 379 trips occurring during the AM peak-hour, and 484 trips occurring during the PM peak-hour.
- The proposed project is not consistent with the 2004 General Plan land use designation and zoning density for the site (Low Density Residential). Therefore, the proposed project does satisfy the first criterion for determining if a new cumulative 2025 analysis is required in addition to the analysis already completed for the County's General Plan. According to information provided by a representative of the County it is necessary to re-run the County's travel demand model by adding an additional 294 single-family dwelling units to the Traffic Analysis Zone (TAZ) in which the project is located to reflect the addition of the proposed project.
- As defined by the County, the addition of the proposed project to the Existing (2013), Existing plus Approved Projects (2018), and Cumulative (2025) scenarios significantly worsens conditions at multiple study intersections. However, these impacts can be mitigated to be less than significant. The following is a summary of the required mitigation measures which are presumed to be the project's sole responsibility:

Existing (2013) plus Proposed Project

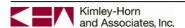
- Mitigation (M1) - modifying the lane configuration on the southbound approach at Intersection #2 (Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road). The modified southbound lane configuration will result in the following: one left-turn lane, one through lane, and one right-turn lane. The existing right-of-way and pavement widths along Salmon Falls Road, immediately north of Green Valley Road, appear to provide adequate space to accommodate the additional southbound approach lane.

Existing plus Approved Projects (2018) plus Proposed Project

 Mitigation (M4) - adding a two-way left-turn lane along Green Valley Road in the immediate vicinity of Intersection #4 (Green Valley Road @ Loch Way). The addition of a two-way left-turn lane would provide a left-turn lane for westbound left-turning traffic and would allow for vehicles making a northbound left-turn movement to clear eastbound traffic and wait for a gap in westbound traffic.

Cumulative (2025) plus Proposed Project

- Mitigation (M6) (same as M4) adding a two-way left-turn lane along Green Valley Road in the immediate vicinity of Intersection #4 (Green Valley Road @ Loch Way). The addition of a two-way left-turn lane would provide a left-turn lane for westbound left-turning traffic and would allow for vehicles making a northbound left-turn movement to clear eastbound traffic and wait for a gap in westbound traffic.
- The significant impacts and associated mitigation measures identified in this report represent the effect of the full proposed project (604-units) added to Existing (2013) and EPAP (2018) Conditions. It is important to note that the necessity for, and the timing of the various mitigations measures could differ from what is presented based on potential phased project implementation.



Appendix A:

Traffic Count Data Sheets

(916) 771-8700

El Dorado County

File Name: 13-7063-001 Francisco-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

Page No : 1

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		Francisc					n Valley F				Francisc			(Green Vall	•		
		Southb					Vestbound				Northb				Eastbo			
Start Time	Left	Thru		App. Total	Left	Thru	Right	U-Turn A		Left	Thru	Right A		Left	Thru		App. Total	Int. Total
06:30	4	28	30	62	5	109	2	4	120	25	8	0	33	6	29	25	60	275
06:45	5	41	49	95	9	106	10	4	129	40	18	11	59	12	31	41	84	367
Total	9	69	79	157	14	215	12	8	249	65	26	1	92	18	60	66	144	642
07:00	24	97	52	173	10	149	21	10	190	57	27	2	86	28	40	41	109	558
07:15	16	68	79	163	5	183	36	8	232	51	71	0	122	49	48	54	151	668
07:30	35	66	115	216	9	183	22	3	217	96	40	2	138	36	52	59	147	718
07:45	24	81	109	214	6	188	6	8	208	76	28	3	107	33	51	62	146	675
Total	99	312	355	766	30	703	85	29	847	280	166	7	453	146	191	216	553	2619
08:00	16	61	64	141	15	145	11	6	177	67	29	2	98	35	67	54	156	572
08:15	13	62	54	129	17	151	25	13	206	65	34	1	100	35	70	59	164	599
08:30	27	63	102	192	11	172	28	7	218	72	48	0	120	32	63	45	140	670
08:45	17	51	60	128	4	167	20	9	200	56	42	0	98	45	60	42	147	573
Total	73	237	280	590	47	635	84	35	801	260	153	3	416	147	260	200	607	2414
09:00	17	34	67	118	6	107	15	6	134	52	21	1	74	30	54	39	123	449
09:15	10	34	51	95	9	110	14	10	143	46	28	0	74	24	34	26	84	396
Total	27	68	118	213	15	217	29	16	277	98	49	1	148	54	88	65	207	845
				1					1				1				1	
15:30	27	38	60	125	19	86	16	15	136	50	56	3	109	77	137	61	275	645
15:45	21	47	54	122	20	101	19	14	154	69	42	3	114	84	147	77	308	698
Total	48	85	114	247	39	187	35	29	290	119	98	6	223	161	284	138	583	1343
16:00	20	37	39	96	17	102	15	17	151	50	59	2	111	85	165	72	322	680
16:15	28	42	36	106	20	91	11	23	145	59	72	0	131	82	141	68	291	673
16:30	35	40	49	124	15	79	18	14	126	79	68	5	152	104	172	79	355	757
16:45	31	53	56	140	17	112	22	16	167	99	58	4	161	96	173	73	342	810
Total	114	172	180	466	69	384	66	70	589	287	257	11	555	367	651	292	1310	2920
17:00	28	38	68	134	13	92	9	23	137	59	53	6	118	98	175	69	342	731
17:15	23	47	36	106	16	122	22	21	181	96	72	3	171	96	152	71	319	777
·													·	1/1	1617 3	21112	1 of 508	

14-1617 3U 134 of 598

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File Name: 13-7063-001 Francisco-Green Valley

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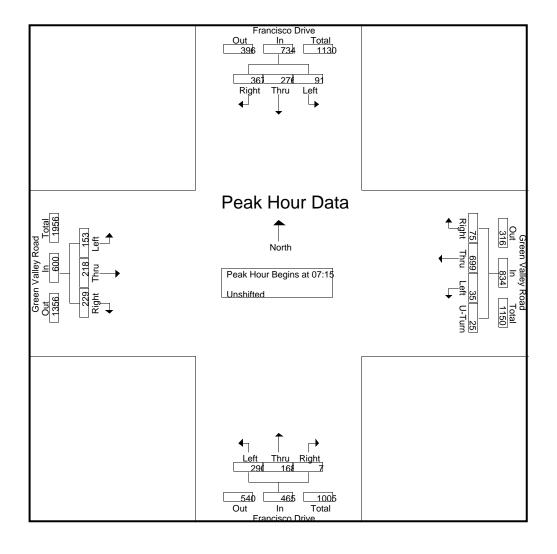
							· ·	rioups i i	inteu- Onsinit	cu								
		Francisc	o Drive			Greei	n Valley F	Road			Francisc	o Drive			Green Val	ley Road		
		Southb	ound			V	Vestbound	l			North	bound			Eastbo	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	23	54	51	128	10	117	11	16	154	88	66	4	158	107	198	78	383	823
17:45	31	66	45	142	22	102	25	20	169	65	57	4	126	117	164	96	377	814
Total	105	205	200	510	61	433	67	80	641	308	248	17	573	418	689	314	1421	3145
18:00	39	42	40	121	12	69	26	15	122	45	49	3	97	110	203	72	385	725
18:15	27	38	27	92	15	56	17	9	97	44	68	4	116	95	150	56	301	606
Grand Total	541	1228	1393	3162	302	2899	421	291	3913	1506	1114	53	2673	1516	2576	1419	5511	15259
Apprch %	17.1	38.8	44.1		7.7	74.1	10.8	7.4		56.3	41.7	2		27.5	46.7	25.7		
Total %	3.5	8	9.1	20.7	2	19	2.8	1.9	25.6	9.9	7.3	0.3	17.5	9.9	16.9	9.3	36.1	

		Francisco					Valley F				Francisc			(Green Vall			
		Southb	ound			v	Vestbound	1			North	oound			Eastbo	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis F	From 06:30	to 09:15 - I	Peak 1 of 1															
Peak Hour for Entire	Intersection	Begins at	07:15															
07:15	16	68	79	163	5	183	36	8	232	51	71	0	122	49	48	54	151	668
07:30	35	66	115	216	9	183	22	3	217	96	40	2	138	36	52	59	147	718
07:45	24	81	109	214	6	188	6	8	208	76	28	3	107	33	51	62	146	675
08:00	16	61	64	141	15	145	11	6	177	67	29	2	98	35	67	54	156	572
Total Volume	91	276	367	734	35	699	75	25	834	290	168	7	465	153	218	229	600	2633
% App. Total	12.4	37.6	50		4.2	83.8	9	3		62.4	36.1	1.5		25.5	36.3	38.2		
PHF	.650	.852	.798	.850	.583	.930	.521	.781	.899	.755	.592	.583	.842	.781	.813	.923	.962	.917

(916) 771-8700 El Dorado County

File Name: 13-7063-001 Francisco-Green Valley

Site Code : 00000000 Start Date : 1/29/2013



(916) 771-8700

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File Name: 13-7063-001 Francisco-Green Valley

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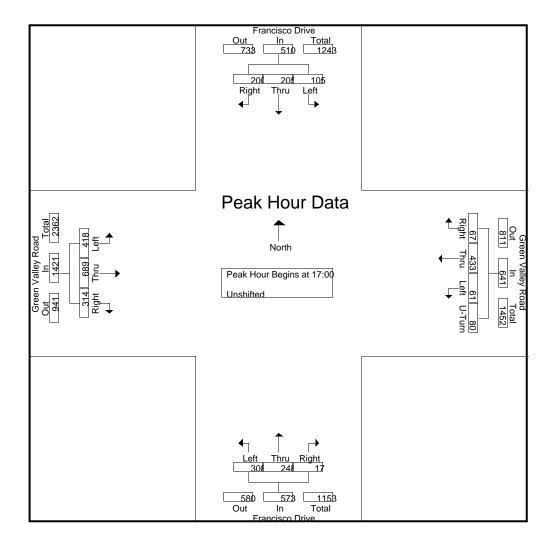
		Franciso	co Drive			Greei	1 Valley F	Road			Francisc	o Drive		(Green Val	ley Road		
		Southl	oound			V	Vestbound	l			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis F	From 15:30	to 18:15 -	Peak 1 of	1														
Peak Hour for Entire	Intersection	Begins at	17:00															
17:00	28	38	68	134	13	92	9	23	137	59	53	6	118	98	175	69	342	731
17:15	23	47	36	106	16	122	22	21	181	96	72	3	171	96	152	71	319	777
17:30	23	54	51	128	10	117	11	16	154	88	66	4	158	107	198	78	383	823
17:45	31	66	45	142	22	102	25	20	169	65	57	4	126	117	164	96	377	814
Total Volume	105	205	200	510	61	433	67	80	641	308	248	17	573	418	689	314	1421	3145
% App. Total	20.6	40.2	39.2		9.5	67.6	10.5	12.5		53.8	43.3	3		29.4	48.5	22.1		
PHF	.847	.777	.735	.898	.693	.887	.670	.870	.885	.802	.861	.708	.838	.893	.870	.818	.928	.955

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El Dorado County

File Name: 13-7063-001 Francisco-Green Valley

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El Dorado County

File Name: 13-7063-002 El Dorado Hills-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

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	F	El Dorado Southb		I	(Green Vall Westbo	ey Road	ps I i i i i i i i i i i i i i i i i i i		El Dorado Northb				Green Vall Eastbo	•		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	3	31	20	54	10	106	1	117	4	5	1	10	3	35	0	38	219
06:45	10	48	24	82	9	123	4	136	2	5	3	10	1	36	2	39	267
Total	13	79	44	136	19	229	5	253	6	10	4	20	4	71	2	77	486
07:00	34	82	39	155	10	142	11	163	5	4	5	14	5	62	7	74	406
07:15	18	37	43	98	16	193	19	228	11	27	9	47	7	59	2	68	441
07:30	26	50	40	116	16	197	11	224	10	11	4	25	4	81	6	91	456
07:45	28	60	37	125	18	176	6	200	10	21	7	38	7	65	2	74	437
Total	106	229	159	494	60	708	47	815	36	63	25	124	23	267	17	307	1740
08:00	18	40	29	87	11	165	5	181	8	13	5	26	10	76	4	90	384
08:15	26	42	26	94	16	166	13	195	11	22	4	37	16	76	5	97	423
08:30	24	49	40	113	45	152	13	210	8	16	18	42	13	74	6	93	458
08:45	15	31	32	78	14	147	6	167	24	17	28	69	3	78	1	82	396
Total	83	162	127	372	86	630	37	753	51	68	55	174	42	304	16	362	1661
09:00	6	28	23	57	9	126	4	139	2	6	9	17	10	60	4	74	287
09:15	4	22	22	48	10	125	7	142	8	10	12	30	10	41	0	51	271
Total	10	50	45	105	19	251	11	281	10	16	21	47	20	101	4	125	558
15:30	18	23	25	66	9	100	15	124	11	28	12	51	20	145	11	176	417
15:45	18	25	14	57	9	117	12	138	14	43	11	68	21	155	7	183	446
Total	36	48	39	123	18	217	27	262	25	71	23	119	41	300	18	359	863
16:00	8	21	19	48	10	106	16	132	18	35	17	70	24	165	7	196	446
16:15	14	17	19	50	4	105	13	122	14	30	13	57	31	170	3	204	433
16:30	9	25	15	49	12	110	18	140	23	29	9	61	41	178	3	222	472
16:45	17	25	25	67	10	104	10	124	14	34	20	68	28	178	0	206	465
Total	48	88	78	214	36	425	57	518	69	128	59	256	124	691	13	828	1816
17:00	13	16	20	49	6	98	20	124	11	35	14	60	36	195	6	237	470
17:15	13	16	21	50	13	130	26	169	21	42	16	79	19	179	3	201	499
	-	-	-	1	-											0 of 509	

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File Name: 13-7063-002 El Dorado Hills-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

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								ps Printea- U									
	E	l Dorado l	Hills Blvd	1	(Green Vall	ley Road		I	El Dorado	Hills Blvd			Green Val	lley Road		
		Southbo	ound			Westbo	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	12	14	34	60	7	103	17	127	17	40	14	71	27	184	6	217	475
17:45	11	24	19	54	4	129	14	147	6	36	13	55	32	200	9	241	497
Total	49	70	94	213	30	460	77	567	55	153	57	265	114	758	24	896	1941
18:00	14	15	6	35	13	85	12	110	9	38	15	62	27	203	5	235	442
18:15	13	9	18	40	10	62	8	80	9	37	9	55	28	149	4	181	356
Grand Total	372	750	610	1732	291	3067	281	3639	270	584	268	1122	423	2844	103	3370	9863
Apprch %	21.5	43.3	35.2		8	84.3	7.7		24.1	52	23.9		12.6	84.4	3.1		
Total %	3.8	7.6	6.2	17.6	3	31.1	2.8	36.9	2.7	5.9	2.7	11.4	4.3	28.8	1	34.2	

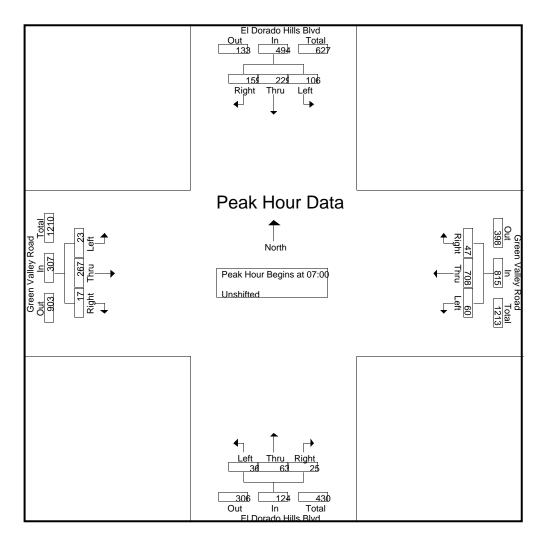
	I	El Dorado	Hills Blvd	1		Green Va	lley Road]	El Dorado	Hills Blvd			Green Val	lley Road		
		Southb	ound			Westl	ound			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 06:30 to	09:15 - Pea	ak 1 of 1	-													
Peak Hour for Entire Ir	ntersection B	egins at 07	:00														
07:00	34	82	39	155	10	142	11	163	5	4	5	14	5	62	7	74	406
07:15	18	37	43	98	16	193	19	228	11	27	9	47	7	59	2	68	441
07:30	26	50	40	116	16	197	11	224	10	11	4	25	4	81	6	91	456
07:45	28	60	37	125	18	176	6	200	10	21	7	38	7	65	2	74	437
Total Volume	106	229	159	494	60	708	47	815	36	63	25	124	23	267	17	307	1740
% App. Total	21.5	46.4	32.2		7.4	86.9	5.8		29	50.8	20.2		7.5	87	5.5		
PHF	.779	.698	.924	.797	.833	.898	.618	.894	.818	.583	.694	.660	.821	.824	.607	.843	.954

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Site Code : 00000000 Start Date : 1/29/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-002 El Dorado Hills-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

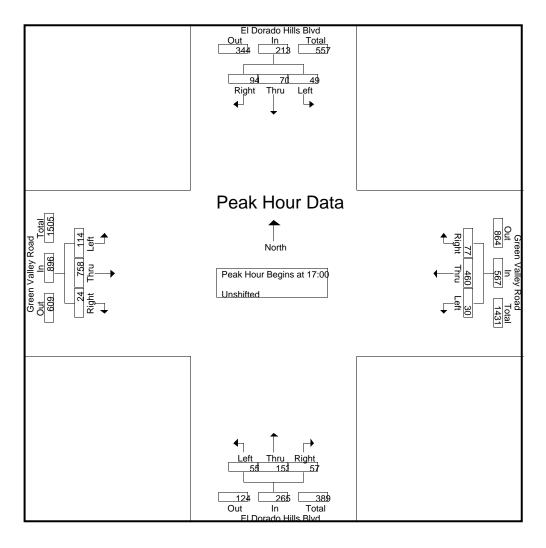
	F	El Dorado l	Hills Blvd	I		Green Val	ley Road			El Dorado	Hills Blvd	l		Green Va	lley Road		
		Southbo	ound			Westb	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pea	k 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 17	:00														
17:00	13	16	20	49	6	98	20	124	11	35	14	60	36	195	6	237	470
17:15	13	16	21	50	13	130	26	169	21	42	16	79	19	179	3	201	499
17:30	12	14	34	60	7	103	17	127	17	40	14	71	27	184	6	217	475
17:45	11	24	19	54	4	129	14	147	6	36	13	55	32	200	9	241	497
Total Volume	49	70	94	213	30	460	77	567	55	153	57	265	114	758	24	896	1941
% App. Total	23	32.9	44.1		5.3	81.1	13.6		20.8	57.7	21.5		12.7	84.6	2.7		
PHF	.942	.729	.691	.888	.577	.885	.740	.839	.655	.911	.891	.839	.792	.948	.667	.929	.972

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El Dorado County

File Name: 13-7063-002 El Dorado Hills-Green Valley

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El Dorado County

File Name: 13-7063-003 Silva Valley-Green Valley

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	S	ilva Valley Southb	Parkway		(Green Vall Westbo	ley Road	ps 11mteu- On		Silva Valley Northb	-			Green Vall Eastbo			
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	0	3	0	3	11	87	0	98	28	0	3	31	0	24	14	38	170
06:45	0	1	0	1	30	94	0	124	43	1	7	51	0	18	30	48	224
Total	0	4	0	4	41	181	0	222	71	1	10	82	0	42	44	86	394
07:00	0	14	1	15	17	116	1	134	59	1	5	65	0	36	63	99	313
07:15	1	7	2	10	16	142	11	169	84	30	14	128	2	46	39	87	394
07:30	1	9	0	10	9	140	7	156	76	15	6	97	0	55	52	107	370
07:45	3	8	0	11	17	141	0	158	62	3	8	73	0	67	37	104	346
Total	5	38	3	46	59	539	19	617	281	49	33	363	2	204	191	397	1423
08:00	0	6	1	7	13	117	0	130	64	1	7	72	0	60	36	96	305
08:15	1	2	2	5	12	129	1	142	60	5	7	72	0	62	42	104	323
08:30	2	4	1	7	8	145	2	155	75	2	3	80	0	75	45	120	362
08:45	0	1	0	1	14	118	0	132	38	1	2	41	1	78	42	121	295
Total	3	13	4	20	47	509	3	559	237	9	19	265	1	275	165	441	1285
09:00	0	2	0	2	9	102	0	111	35	0	4	39	1	49	26	76	228
09:15	1	2	0	3	5	102	1	108	42	0	6	48	0	25	27	52	211
Total	1	4	0	5	14	204	1	219	77	0	10	87	1	74	53	128	439
15:30	0	1	0	1	4	68	0	72	57	4	14	75	3	140	47	190	338
15:45	1	3	0	4	4	73	0	77	63	2	9	74	1	132	49	182	337
Total	1	4	0	5	8	141	0	149	120	6	23	149	4	272	96	372	675
16:00	1	1	0	2	7	85	1	93	47	2	19	68	2	131	54	187	350
16:15	0	2	0	2	3	63	1	67	58	4	8	70	0	148	52	200	339
16:30	0	1	0	1	14	80	1	95	61	5	11	77	2	138	55	195	368
16:45	0	1	0	1	11	77	0	88	51	5	12	68	1	162	57	220	377
Total	1	5	0	6	35	305	3	343	217	16	50	283	5	579	218	802	1434
17:00	1	2	1	4	7	81	2	90	51	4	14	69	0	156	64	220	383
17:15	0	1	0	1	8	97	0	105	60	3	15	78	0	138	63	201	385
, , , ,	1 *			- 1									1.			4 of 508	

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File Name: 13-7063-003 Silva Valley-Green Valley

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							Grou	ps i illiteu- C	usimicu								
	S	ilva Valley	Parkway	,	•	Green Val	ley Road		S	Silva Valley	Parkway			Green Val	lley Road		
		Southbo	ound			Westb	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	0	2	1	3	8	80	0	88	48	5	13	66	3	144	67	214	371
17:45	1	2	0	3	11	91	1	103	52	3	14	69	3	147	74	224	399
Total	2	7	2	11	34	349	3	386	211	15	56	282	6	585	268	859	1538
18:00	0	2	0	2	9	76	0	85	33	4	9	46	0	170	74	244	377
18:15	0	2	1	3	6	52	0	58	29	1	12	42	5	113	52	170	273
Grand Total	13	79	10	102	253	2356	29	2638	1276	101	222	1599	24	2314	1161	3499	7838
Apprch %	12.7	77.5	9.8		9.6	89.3	1.1		79.8	6.3	13.9		0.7	66.1	33.2		
Total %	0.2	1	0.1	1.3	3.2	30.1	0.4	33.7	16.3	1.3	2.8	20.4	0.3	29.5	14.8	44.6	

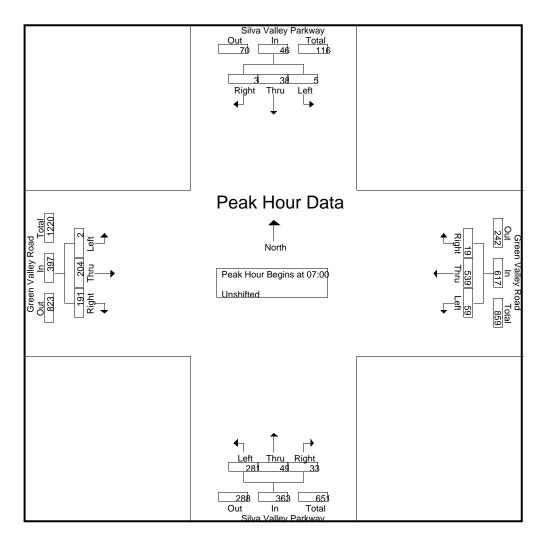
	5	Silva Valle	y Parkway	7		Green Va	lley Road		S	ilva Valley	Parkway	,		Green Val	ley Road		
		South	bound			Westh	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 06:30 to	09:15 - Pe	eak 1 of 1														
Peak Hour for Entire In	ntersection 1	Begins at 0	7:00														
07:00	0	14	1	15	17	116	1	134	59	1	5	65	0	36	63	99	313
07:15	1	7	2	10	16	142	11	169	84	30	14	128	2	46	39	87	394
07:30	1	9	0	10	9	140	7	156	76	15	6	97	0	55	52	107	370
07:45	3	8	0	11	17	141	0	158	62	3	8	73	0	67	37	104	346
Total Volume	5	38	3	46	59	539	19	617	281	49	33	363	2	204	191	397	1423
% App. Total	10.9	82.6	6.5		9.6	87.4	3.1		77.4	13.5	9.1		0.5	51.4	48.1		
PHF	.417	.679	.375	.767	.868	.949	.432	.913	.836	.408	.589	.709	.250	.761	.758	.928	.903

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File Name: 13-7063-003 Silva Valley-Green Valley

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File Name: 13-7063-003 Silva Valley-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

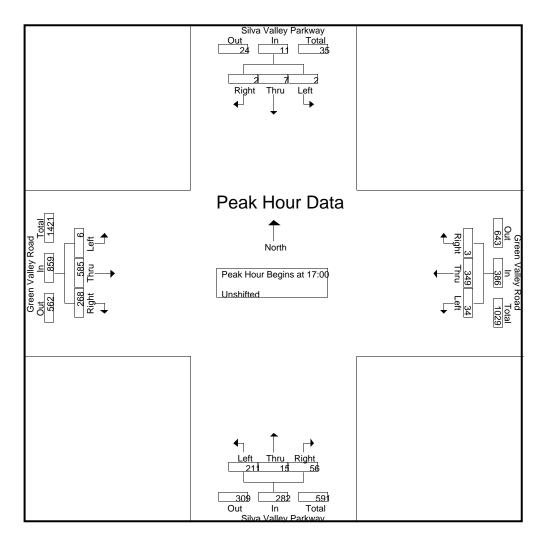
	S	ilva Valle	y Parkway	7		Green Val	ley Road		S	ilva Valle	y Parkway	7		Green Va	lley Road		
		South	bound			Westb	ound			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fre	om 15:30 to	18:15 - Pe	eak 1 of 1														
Peak Hour for Entire Ir	ntersection I	Begins at 1	7:00														
17:00	1	2	1	4	7	81	2	90	51	4	14	69	0	156	64	220	383
17:15	0	1	0	1	8	97	0	105	60	3	15	78	0	138	63	201	385
17:30	0	2	1	3	8	80	0	88	48	5	13	66	3	144	67	214	371
17:45	1	2	0	3	11	91	1	103	52	3	14	69	3	147	74	224	399
Total Volume	2	7	2	11	34	349	3	386	211	15	56	282	6	585	268	859	1538
% App. Total	18.2	63.6	18.2		8.8	90.4	0.8		74.8	5.3	19.9		0.7	68.1	31.2		
PHF	.500	.875	.500	.688	.773	.899	.375	.919	.879	.750	.933	.904	.500	.938	.905	.959	.964

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File Name: 13-7063-003 Silva Valley-Green Valley

Site Code : 00000000 Start Date : 1/29/2013



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El Dorado County

File Name: 13-7063-004 Loch-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

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						Green Val	ley Road			Loch	Way			Green Val	lley Road		
		Southb				Westb	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	0	0	0	0	1	93	0	94	4	0	2	6	0	23	2	25	125
06:45	0	0	0	0	1	125	0	126	3	0	0	3	0	25	1	26	155
Total	0	0	0	0	2	218	0	220	7	0	2	9	0	48	3	51	280
07:00	0	0	0	0	0	141	0	141	6	0	2	8	0	40	1	41	190
07:15	0	0	0	0	0	151	0	151	9	0	1	10	0	57	4	61	222
07:30	0	0	0	0	0	150	0	150	11	0	4	15	0	58	6	64	229
07:45	0	0	0	0	1	149	0	150	0	0	0	0	0	75	6	81	231
Total	0	0	0	0	1	591	0	592	26	0	7	33	0	230	17	247	872
08:00	0	0	0	0	1	126	0	127	7	0	6	13	0	62	2	64	204
08:15	0	0	0	0	0	140	0	140	6	0	0	6	0	70	2	72	218
08:30	0	0	0	0	4	145	0	149	10	0	0	10	0	79	3	82	241
08:45	0	0	0	0	0	127	0	127	7	0	0	7	0	77	4	81	215
Total	0	0	0	0	5	538	0	543	30	0	6	36	0	288	11	299	878
09:00	0	0	0	0	0	100	0	100	5	0	0	5	0	48	3	51	156
09:15	0	0	0	0	1	101	0	102	6	0	0	6	0	31	2	33	141
Total	0	0	0	0	1	201	0	202	11	0	0	11	0	79	5	84	297
15:30	0	0	0	ا م	0	76	0	76	2	0	2	<i>-</i>	0	140	0	157	229
15:45	0	0	0 0	0 0	0	76 68	0	76 71	2 1	0	3	5 1	0	149 129	8 5	137	238 206
Total	0	0	0	0	3	144	0	147	3	0	3	6	0	278	13	291	444
Total	1 0	U	U	0	3	144	U	147	3	U	3	0	U	276	13	291	444
16:00	0	0	0	0	2	91	0	93	2	0	1	3	0	144	7	151	247
16:15	0	0	0	0	2	66	0	68	1	0	1	2	0	150	4	154	224
16:30	0	0	0	0	0	90	0	90	3	0	4	7	0	135	5	140	237
16:45	0	0	0	0	0	85	0	85	7	0	1	8	0	180	4	184	277
Total	0	0	0	0	4	332	0	336	13	0	7	20	0	609	20	629	985
17:00	0	0	0	0	2	83	0	85	5	0	1	6	0	167	8	175	266
17:15	0	0	0	0	2	108	0	110	4	0	0	4	0	144	6	150	264
				- 1				ļ				į.	4	4 4047	201144	0 of E00	

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File Name: 13-7063-004 Loch-Green Valley

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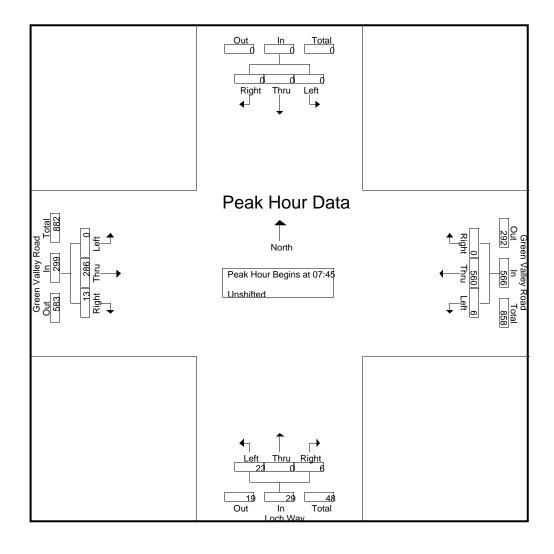
							0100	ps I I III ca C									
						Green Val	ley Road			Loch	Way			Green Val	ley Road		
		Southbo	ound			Westb	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	0	0	0	0	0	81	0	81	5	0	2	7	0	150	9	159	247
17:45	0	0	0	0	2	88	0	90	10	0	1	11	0	156	6	162	263
Total	0	0	0	0	6	360	0	366	24	0	4	28	0	617	29	646	1040
18:00	0	0	0	0	1	79	0	80	4	0	1	5	0	163	8	171	256
18:15	0	0	0	0	0	55	0	55	3	0	0	3	0	125	8	133	191
Grand Total	0	0	0	0	23	2518	0	2541	121	0	30	151	0	2437	114	2551	5243
Apprch %	0	0	0		0.9	99.1	0		80.1	0	19.9		0	95.5	4.5		
Total %	0	0	0	0	0.4	48	0	48.5	2.3	0	0.6	2.9	0	46.5	2.2	48.7	

		Southbo	ound			Green Val Westb	•			Loch Northb				Green Val Eastb	•		
Start Time	Left	Thru		App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru		App. Total	Int. Total
Peak Hour Analysis Fr	rom 06:30 to	09:15 - Pea	k 1 of 1						·	·			•	·	•	·	
Peak Hour for Entire In	ntersection I	Begins at 07:	:45														
07:45	0	0	0	0	1	149	0	150	0	0	0	0	0	75	6	81	231
08:00	0	0	0	0	1	126	0	127	7	0	6	13	0	62	2	64	204
08:15	0	0	0	0	0	140	0	140	6	0	0	6	0	70	2	72	218
08:30	0	0	0	0	4	145	0	149	10	0	0	10	0	79	3	82	241
Total Volume	0	0	0	0	6	560	0	566	23	0	6	29	0	286	13	299	894
% App. Total	0	0	0		1.1	98.9	0		79.3	0	20.7		0	95.7	4.3		
PHF	.000	.000	.000	.000	.375	.940	.000	.943	.575	.000	.250	.558	.000	.905	.542	.912	.927

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File Name: 13-7063-004 Loch-Green Valley

Site Code : 00000000 Start Date : 1/29/2013



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El Dorado County

File Name: 13-7063-004 Loch-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

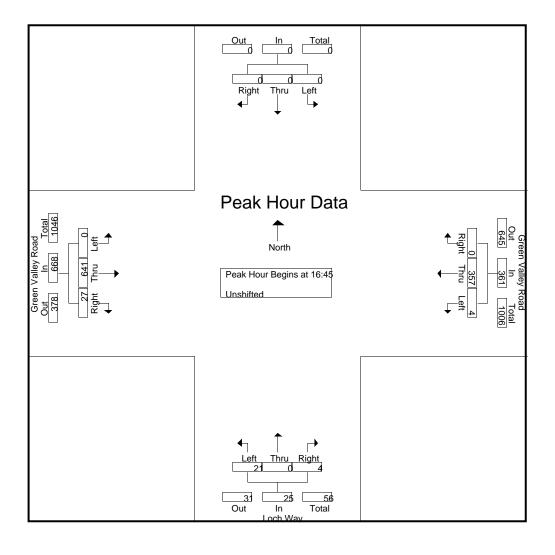
						Green Val	lley Road			Loch	Way			Green Va	lley Road		
		Southbo	ound			Westb	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pea	k 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 16:	45														
16:45	0	0	0	0	0	85	0	85	7	0	1	8	0	180	4	184	277
17:00	0	0	0	0	2	83	0	85	5	0	1	6	0	167	8	175	266
17:15	0	0	0	0	2	108	0	110	4	0	0	4	0	144	6	150	264
17:30	0	0	0	0	0	81	0	81	5	0	2	7	0	150	9	159	247
Total Volume	0	0	0	0	4	357	0	361	21	0	4	25	0	641	27	668	1054
% App. Total	0	0	0		1.1	98.9	0		84	0	16		0	96	4		
PHF	.000	.000	.000	.000	.500	.826	.000	.820	.750	.000	.500	.781	.000	.890	.750	.908	.951

(916) 771-8700

El Dorado County

File Name: 13-7063-004 Loch-Green Valley

Site Code : 00000000 Start Date : 1/29/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-005 Malcom Dixon-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

Page No : 1

Groups Printed- Unshifted

	N	Malcom Dix Southb			(Green Vall Westbo				Northb	ound		(Green Vall Eastbo	•		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	2	0	8	10	0	90	3	93	0	0	0	0	1	23	0	24	127
06:45	1	0	1	2	0	102	0	102	0	0	0	0	1	17	0	18	122
Total	3	0	9	12	0	192	3	195	0	0	0	0	2	40	0	42	249
07:00	0	0	7	7	0	133	0	133	0	0	0	0	1	30	0	31	171
07:15	2	0	3	5	0	141	1	142	0	0	0	0	2	51	0	53	200
07:30	2	0	6	8	0	153	1	154	0	0	0	0	1	59	0	60	222
07:45	2	0	6	8	0	126	0	126	0	0	0	0	3	70	0	73	207
Total	6	0	22	28	0	553	2	555	0	0	0	0	7	210	0	217	800
08:00	2	0	3	5	0	116	0	116	0	0	0	0	2	66	0	68	189
08:15	2	0	6	8	0	133	1	134	0	0	0	0	0	69	0	69	211
08:30	0	0	6	6	0	129	1	130	0	0	0	0	2	65	0	67	203
08:45	1	0	4	5	0	126	1	127	0	0	0	0	3	80	0	83	215
Total	5	0	19	24	0	504	3	507	0	0	0	0	7	280	0	287	818
09:00	1	0	1	2	0	98	1	99	0	0	0	0	0	52	0	52	153
09:15	2	0	2	4	0	88	0	88	0	0	0	0	2	30	0	32	124
Total	3	0	3	6	0	186	1	187	0	0	0	0	2	82	0	84	277
15:30	3	0	2	5	0	77	1	78	0	0	0	0	4	133	0	137	220
15:45	2	0	2	4	0	72	1	73	0	0	0	0	1	137	0	138	215
Total	5	0	4	9	0	149	2	151	0	0	0	0	5	270	0	275	435
16:00	1	0	0	1	0	92	5	97	0	0	0	0	7	147	0	154	252
16:15	1	0	4	5	0	69	3	72	0	0	0	0	3	147	0	150	227
16:30	3	0	2	5	0	83	3	86	0	0	0	0	3	139	0	142	233
16:45	3	0	5	8	0	86	1	87	0	0	0	0	3	162	0	165	260
Total	8	0	11	19	0	330	12	342	0	0	0	0	16	595	0	611	972
17:00	3	0	4	7	0	88	0	88	0	0	0	0	2	177	0	179	274
17:15	1	0	1	2	0	99	4	103	0	0	0	0	4	147	0	151	256
1				1				[- 1	1,		21115	4 of 508	

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(916) 771-8700

El Dorado County

File Name: 13-7063-005 Malcom Dixon-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

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							Orou	os i illiteu- C	nsmittu								
	N	Malcom Dix	xon Road			Green Vall	ey Road							Green Val	ley Road		
		Southb	ound			Westbo	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	3	0	4	7	0	80	0	80	0	0	0	0	3	152	0	155	242
17:45	2	0	5	7	0	78	1	79	0	0	0	0	7	156	0	163	249
Total	9	0	14	23	0	345	5	350	0	0	0	0	16	632	0	648	1021
18:00	2	0	2	4	0	82	0	82	0	0	0	0	3	151	0	154	240
18:15	0	0	2	2	0	55	4	59	0	0	0	0	4	129	0	133	194
Grand Total	41	0	86	127	0	2396	32	2428	0	0	0	0	62	2389	0	2451	5006
Apprch %	32.3	0	67.7		0	98.7	1.3		0	0	0		2.5	97.5	0		
Total %	0.8	0	1.7	2.5	0	47.9	0.6	48.5	0	0	0	0	1.2	47.7	0	49	

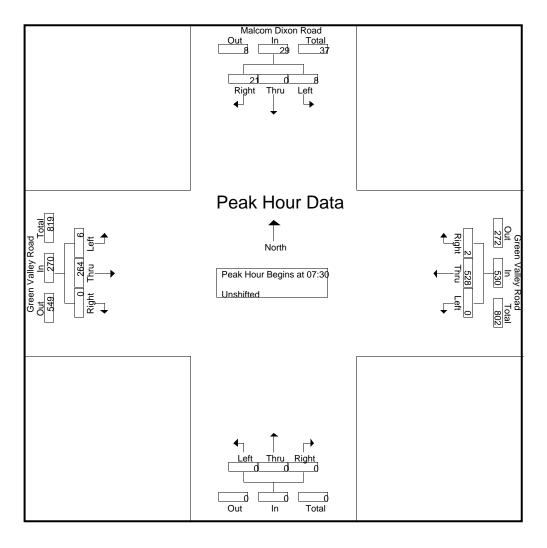
	I	Malcom Di	xon Road			Green Va	lley Road							Green Val	lley Road		
		Southbo	ound			Westh	ound			Northl	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 06:30 to	09:15 - Pea	k 1 of 1														
Peak Hour for Entire In	ntersection E	Begins at 07	:30														
07:30	2	0	6	8	0	153	1	154	0	0	0	0	1	59	0	60	222
07:45	2	0	6	8	0	126	0	126	0	0	0	0	3	70	0	73	207
08:00	2	0	3	5	0	116	0	116	0	0	0	0	2	66	0	68	189
08:15	2	0	6	8	0	133	1	134	0	0	0	0	0	69	0	69	211
Total Volume	8	0	21	29	0	528	2	530	0	0	0	0	6	264	0	270	829
% App. Total	27.6	0	72.4		0	99.6	0.4		0	0	0		2.2	97.8	0		
PHF	1.000	.000	.875	.906	.000	.863	.500	.860	.000	.000	.000	.000	.500	.943	.000	.925	.934

(916) 771-8700

El Dorado County

File Name: 13-7063-005 Malcom Dixon-Green Valley

Site Code : 00000000 Start Date : 1/29/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-005 Malcom Dixon-Green Valley

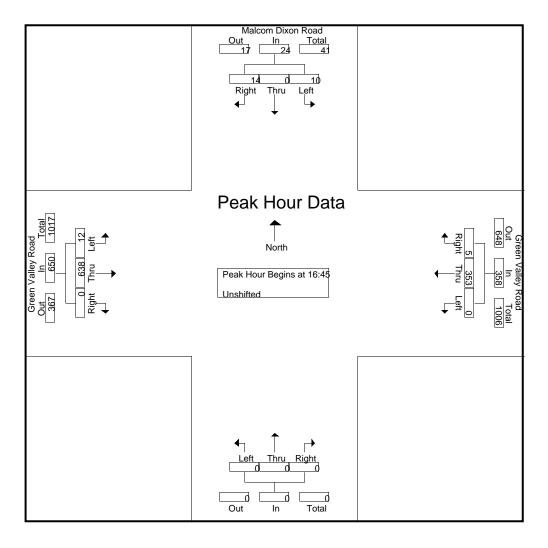
Site Code : 00000000 Start Date : 1/29/2013

	N	Malcom Di	ixon Road	l		Green Va	lley Road							Green Val	ley Road		
		Southb	ound			Westb	ound			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pe	ak 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 16	5:45														
16:45	3	0	5	8	0	86	1	87	0	0	0	0	3	162	0	165	260
17:00	3	0	4	7	0	88	0	88	0	0	0	0	2	177	0	179	274
17:15	1	0	1	2	0	99	4	103	0	0	0	0	4	147	0	151	256
17:30	3	0	4	7	0	80	0	80	0	0	0	0	3	152	0	155	242
Total Volume	10	0	14	24	0	353	5	358	0	0	0	0	12	638	0	650	1032
% App. Total	41.7	0	58.3		0	98.6	1.4		0	0	0		1.8	98.2	0		
PHF	.833	.000	.700	.750	.000	.891	.313	.869	.000	.000	.000	.000	.750	.901	.000	.908	.942

(916) 771-8700

El Dorado County File Name: 13-7063-005 Malcom Dixon-Green Valley

Site Code : 00000000 Start Date : 1/29/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-006 Deer Valley-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

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Groups Printed- Unshifted

		Deer Valle Southb	ound		(Green Vall Westbo	•			Deer Valle Northb	•			Green Vall Eastbo	•		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	1	0	9	10	0	80	0	80	3	0	0	3	1	26	0	27	120
06:45	1	0	10	11	0	84	0	84	8	0	1	9	1	19	0	20	124
Total	2	0	19	21	0	164	0	164	11	0	1	12	2	45	0	47	244
07:00	0	0	7	7	1	123	1	125	3	0	1	4	0	26	1	27	163
07:15	7	0	7	14	0	138	1	139	2	0	2	4	3	51	0	54	211
07:30	11	0	6	17	2	138	4	144	3	0	5	8	2	61	0	63	232
07:45	2	0	6	8	1	109	1	111	5	0	2	7	1	67	2	70	196
Total	20	0	26	46	4	508	7	519	13	0	10	23	6	205	3	214	802
08:00	1	0	9	10	1	106	0	107	2	0	1	3	1	66	0	67	187
08:15	0	0	6	6	2	114	1	117	6	0	3	9	3	65	0	68	200
08:30	3	0	15	18	2	113	1	116	9	0	4	13	2	63	0	65	212
08:45	0	0	8	8	1	101	1	103	2	0	2	4	7	73	4	84	199
Total	4	0	38	42	6	434	3	443	19	0	10	29	13	267	4	284	798
09:00	2	0	2	4	1	100	1	102	6	0	3	9	1	47	4	52	167
09:15	1	0	9	10	2	73	0	75	3	0	0	3	0	26	2	28	116
Total	3	0	11	14	3	173	1	177	9	0	3	12	1	73	6	80	283
15:30	0	0	4	4	5	76	1	82	1	1	2	4	6	122	2	130	220
15:45	1	0	2	3	4	74	0	78	1	0	3	4	4	138	2	144	229
Total	1	0	6	7	9	150	1	160	2	1	5	8	10	260	4	274	449
16:00	0	0	7	7	3	85	4	92	6	0	2	8	5	133	5	143	250
16:15	0	1	2	3	3	68	0	71	0	0	3	3	6	143	2	151	228
16:30	0	0	8	8	5	71	2	78	3	1	0	4	6	125	5	136	226
16:45	0	0	2	2	5	84	0	89	2	1	4	7	10	154	8	172	270
Total	0	1	19	20	16	308	6	330	11	2	9	22	27	555	20	602	974
17:00	5	0	5	10	5	83	2	90	3	0	1	4	7	169	4	180	284
17:15	2	0	6	8	1	96	2	99	1	0	5	6	14	129	0	143	256
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(916) 771-8700

El Dorado County

File Name: 13-7063-006 Deer Valley-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

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							Grou	ps r rinteu- U	nsmiteu								
		Deer Valle	y Road			Green Val	ley Road			Deer Vall	ey Road			Green Val	ley Road		
		Southbo	ound			Westb	ound			North	oound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	0	0	1	1	5	76	3	84	2	0	1	3	14	140	6	160	248
17:45	2	0	4	6	5	78	1	84	1	0	1	2	7	141	8	156	248
Total	9	0	16	25	16	333	8	357	7	0	8	15	42	579	18	639	1036
18:00	3	1	9	13	1	70	1	72	0	0	4	4	8	131	5	144	233
18:15	0	0	4	4	5	56	1	62	1	0	1	2	7	132	0	139	207
Grand Total	42	2	148	192	60	2196	28	2284	73	3	51	127	116	2247	60	2423	5026
Apprch %	21.9	1	77.1		2.6	96.1	1.2		57.5	2.4	40.2		4.8	92.7	2.5		
Total %	0.8	0	2.9	3.8	1.2	43.7	0.6	45.4	1.5	0.1	1	2.5	2.3	44.7	1.2	48.2	

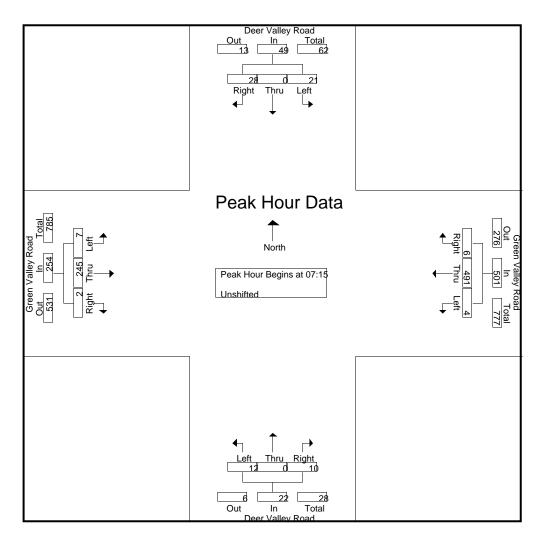
		Deer Valle Southbe	•		-	Green Val Westb	•			Deer Vall	•			Green Val Eastb	•		
Start Time	Left	Thru		App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru		App. Total	Int. Total
Peak Hour Analysis Fr				App. Total	Lett	Tinu	Right	App. Total	Lett	Tinu	Right	App. Total	Leit	Tillu	Right	App. Total	IIIt. Total
Peak Hour for Entire In																	
07:15	7	0	7	14	0	138	1	139	2	0	2	4	3	51	0	54	211
07:30	11	0	6	17	2	138	4	144	3	0	5	8	2	61	0	63	232
07:45	2	0	6	8	1	109	1	111	5	0	2	7	1	67	2	70	196
08:00	1	0	9	10	1	106	0	107	2	0	1	3	1	66	0	67	187
Total Volume	21	0	28	49	4	491	6	501	12	0	10	22	7	245	2	254	826
% App. Total	42.9	0	57.1	.,	0.8	98	1.2	301	54.5	0	45.5		2.8	96.5	0.8	20.	020
PHF	.477	.000	.778	.721	.500	.889	.375	.870	.600	.000	.500	.688	.583	.914	.250	.907	.890

(916) 771-8700

El Dorado County

File Name: 13-7063-006 Deer Valley-Green Valley

Site Code : 00000000 Start Date : 1/29/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-006 Deer Valley-Green Valley

Site Code : 00000000 Start Date : 1/29/2013

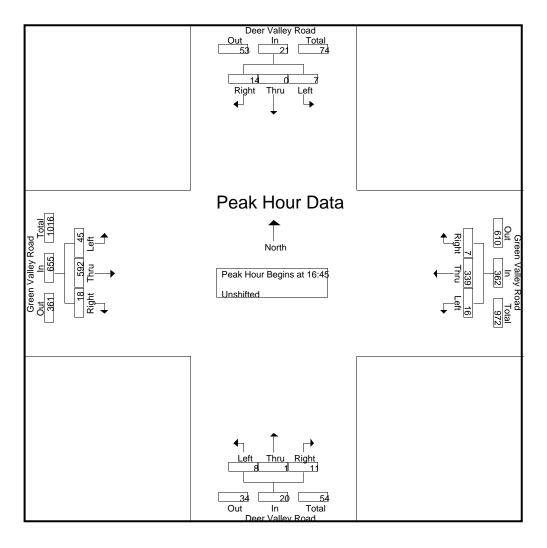
		Deer Val	ley Road			Green Val	lley Road			Deer Val	ley Road			Green Va	lley Road		
		South	bound			Westb	ound			North	bound			Easth	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pe	eak 1 of 1														
Peak Hour for Entire In	ntersection I	Begins at 1	6:45														
16:45	0	0	2	2	5	84	0	89	2	1	4	7	10	154	8	172	270
17:00	5	0	5	10	5	83	2	90	3	0	1	4	7	169	4	180	284
17:15	2	0	6	8	1	96	2	99	1	0	5	6	14	129	0	143	256
17:30	0	0	1	1	5	76	3	84	2	0	1	3	14	140	6	160	248
Total Volume	7	0	14	21	16	339	7	362	8	1	11	20	45	592	18	655	1058
% App. Total	33.3	0	66.7		4.4	93.6	1.9		40	5	55		6.9	90.4	2.7		
PHF	.350	.000	.583	.525	.800	.883	.583	.914	.667	.250	.550	.714	.804	.876	.563	.910	.931

(916) 771-8700

El Dorado County

File Name: 13-7063-006 Deer Valley-Green Valley

Site Code : 00000000 Start Date : 1/29/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-007 Bass Lake-Green Valley

Site Code : 00000000 Start Date : 1/31/2013

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		Bass Lak Southb			(Green Vall Westbo	ey Road	ps rimed on		Bass Lake Northb				Green Vall Eastbo	•		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	1	0	0	1	20	71	0	91	21	0	22	43	0	24	4	28	163
06:45	0	0	0	0	31	65	0	96	17	0	12	29	1	14	7	22	147
Total	1	0	0	1	51	136	0	187	38	0	34	72	1	38	11	50	310
07:00	0	0	0	0	43	118	2	163	35	1	5	41	1	21	11	33	237
07:15	0	0	0	0	30	207	1	238	85	1	11	97	2	97	31	130	465
07:30	0	0	1	1	44	167	0	211	60	1	11	72	0	139	75	214	498
07:45	1	0	0	1	41	95	1	137	17	0	14	31	0	76	27	103	272
Total	1	0	1	2	158	587	4	749	197	3	41	241	3	333	144	480	1472
08:00	0	0	0	0	44	93	3	140	25	1	22	48	2	58	19	79	267
08:15	2	0	1	3	48	87	1	136	22	0	28	50	0	59	10	69	258
08:30	2	0	2	4	61	84	0	145	33	0	46	79	0	48	16	64	292
08:45	1	0	0	1	35	71	9	115	25	0	40	65	4	64	17	85	266
Total	5	0	3	8	188	335	13	536	105	1	136	242	6	229	62	297	1083
09:00	1	1	0	2	24	86	3	113	20	0	15	35	2	43	6	51	201
09:15	1	0	1	2	16	61	2	79	16	1	17	34	1	33	5	39	154
Total	2	1	1	4	40	147	5	192	36	1	32	69	3	76	11	90	355
15:30	6	1	2	9	22	85	3	110	23	1	31	55	2	105	26	133	307
15:45	0	0	2	2	14	76	1	91	11	0	34	45	1	126	14	141	279
Total	6	1	4	11	36	161	4	201	34	1	65	100	3	231	40	274	586
16:00	4	1	5	10	17	78	0	95	22	2	30	54	2	107	20	129	288
16:15	3	2	2	7	25	65	1	91	20	1	46	67	2	110	24	136	301
16:30	5	1	3	9	22	86	2	110	20	0	44	64	0	127	23	150	333
16:45	7	1	0	8	32	61	3	96	10	2	39	51	1	126	35	162	317
Total	19	5	10	34	96	290	6	392	72	5	159	236	5	470	102	577	1239
17:00	3	4	6	13	25	65	2	92	21	4	47	72	1	154	25	180	357
17:15	0	0	2	2	31	87	1	119	9	0	47	56	0	142	31	173	350
1				'				'				,	4		21140	4 of 509	

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(916) 771-8700

El Dorado County

File Name: 13-7063-007 Bass Lake-Green Valley

Site Code : 00000000 Start Date : 1/31/2013

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							Grou	ps i illiteu- U	isiiiteu								
		Bass Lak	e Road			Green Vall	ley Road			Bass Lake	e Road			Green Val	lley Road		
		Southb	ound			Westbo	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	3	3	0	6	38	69	0	107	15	0	33	48	1	112	35	148	309
17:45	0	4	0	4	20	85	0	105	25	0	25	50	1	122	28	151	310
Total	6	11	8	25	114	306	3	423	70	4	152	226	3	530	119	652	1326
18:00	1	0	0	1	17	60	0	77	16	2	29	47	1	118	14	133	258
18:15	1	0	1	2	21	50	2	73	15	1	42	58	3	103	24	130	263
Grand Total	42	18	28	88	721	2072	37	2830	583	18	690	1291	28	2128	527	2683	6892
Apprch %	47.7	20.5	31.8		25.5	73.2	1.3		45.2	1.4	53.4		1	79.3	19.6		
Total %	0.6	0.3	0.4	1.3	10.5	30.1	0.5	41.1	8.5	0.3	10	18.7	0.4	30.9	7.6	38.9	

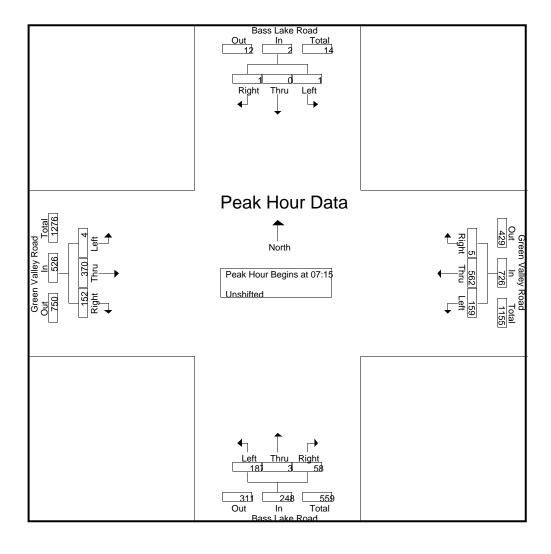
		Bass Lak	e Road			Green Va	lley Road			Bass Lak	e Road			Green Val	ley Road		
		Southb	ound			Westb	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 06:30 to	o 09:15 - Pe	ak 1 of 1														
Peak Hour for Entire In	ntersection 1	Begins at 07	7:15														
07:15	0	0	0	0	30	207	1	238	85	1	11	97	2	97	31	130	465
07:30	0	0	1	1	44	167	0	211	60	1	11	72	0	139	75	214	498
07:45	1	0	0	1	41	95	1	137	17	0	14	31	0	76	27	103	272
08:00	0	0	0	0	44	93	3	140	25	1	22	48	2	58	19	79	267
Total Volume	1	0	1	2	159	562	5	726	187	3	58	248	4	370	152	526	1502
% App. Total	50	0	50		21.9	77.4	0.7		75.4	1.2	23.4		0.8	70.3	28.9		
PHF	.250	.000	.250	.500	.903	.679	.417	.763	.550	.750	.659	.639	.500	.665	.507	.614	.754

(916) 771-8700

El Dorado County

File Name: 13-7063-007 Bass Lake-Green Valley

Site Code : 00000000 Start Date : 1/31/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-007 Bass Lake-Green Valley

Site Code : 00000000 Start Date : 1/31/2013

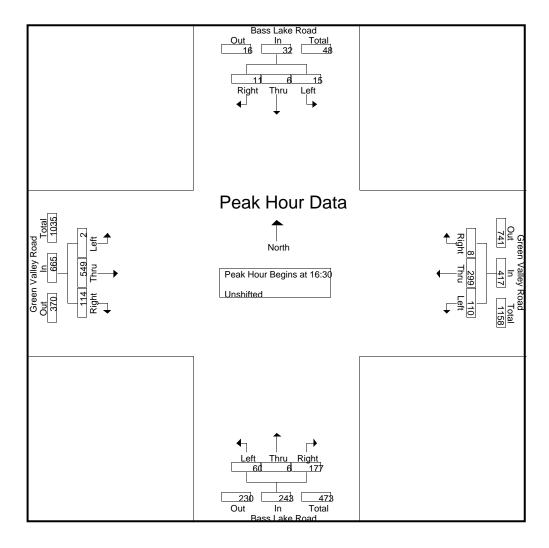
		Bass Lake	Road			Green Val	ley Road			Bass Lak	e Road			Green Va	lley Road		
		Southbo	ound			Westb	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pea	k 1 of 1														
Peak Hour for Entire Ir	ntersection B	egins at 16:	:30														
16:30	5	1	3	9	22	86	2	110	20	0	44	64	0	127	23	150	333
16:45	7	1	0	8	32	61	3	96	10	2	39	51	1	126	35	162	317
17:00	3	4	6	13	25	65	2	92	21	4	47	72	1	154	25	180	357
17:15	0	0	2	2	31	87	1	119	9	0	47	56	0	142	31	173	350
Total Volume	15	6	11	32	110	299	8	417	60	6	177	243	2	549	114	665	1357
Margan Market Ma	46.9	18.8	34.4		26.4	71.7	1.9		24.7	2.5	72.8		0.3	82.6	17.1		
PHF	.536	.375	.458	.615	.859	.859	.667	.876	.714	.375	.941	.844	.500	.891	.814	.924	.950

(916) 771-8700

El Dorado County

File Name: 13-7063-007 Bass Lake-Green Valley

Site Code : 00000000 Start Date : 1/31/2013



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El Dorado County

File Name: 13-7063-008 Cambridge-Green Valley

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		Cambridg Southbo			(Green Vall Westbo	ley Road	ps Timea C		Cambridg Northb			ı	Green Val Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	10	0	5	15	2	65	1	68	20	1	6	27	1	40	4	45	155
06:45	5	3	4	12	3	82	1	86	17	0	11	28	1	24	4	29	155
Total	15	3	9	27	5	147	2	154	37	1	17	55	2	64	8	74	310
07:00	2	3	9	14	8	106	1	115	49	1	8	58	0	23	3	26	213
07:15	5	2	11	18	2	165	0	167	71	0	6	77	6	76	17	99	361
07:30	3	0	11	14	9	122	0	131	63	0	13	76	1	126	30	157	378
07:45	4	1	7	12	2	97	4	103	33	2	14	49	2	72	16	90	254
Total	14	6	38	58	21	490	5	516	216	3	41	260	9	297	66	372	1206
08:00	1	1	11	13	8	103	2	113	29	0	13	42	1	68	10	79	247
08:15	2	0	8	10	6	92	1	99	37	0	14	51	1	82	8	91	251
08:30	3	1	8	12	6	94	0	100	43	0	18	61	3	76	15	94	267
08:45	4	1	4	9	16	83	1	100	25	1	8	34	1	89	13	103	246
Total	10	3	31	44	36	372	4	412	134	1	53	188	6	315	46	367	1011
09:00	1	0	3	4	9	76	1	86	33	3	14	50	3	52	8	63	203
09:15	1	0	2	3	6	52	0	58	26	0	9	35	0	42	7	49	145
Total	2	0	5	7	15	128	1	144	59	3	23	85	3	94	15	112	348
15:30	3	0	3	6	12	76	1	89	26	3	14	43	5	109	23	137	275
15:45	2	1	3	6	13	76	1	90	13	0	16	29	3	135	27	165	290
Total	5	1	6	12	25	152	2	179	39	3	30	72	8	244	50	302	565
16:00	1	0	4	5	16	68	3	87	26	1	14	41	3	105	27	135	268
16:15	4	1	4	9	10	76	3	89	12	0	9	21	6	132	23	161	280
16:30	3	1	6	10	11	80	3	94	23	0	18	41	5	147	23	175	320
16:45	1	1	2	4	15	77	1	93	21	2	15	38	4	132	34	170	305
Total	9	3	16	28	52	301	10	363	82	3	56	141	18	516	107	641	1173
17:00	2	0	1	3	7	63	3	73	24	1	19	44	10	156	41	207	327
17:15	1	2	3	6	10	91	1	102	27	1	17	45	5	136	42	183	336
								'				,	4	4 4047	21140	0 of 509	

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El Dorado County

File Name: 13-7063-008 Cambridge-Green Valley

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		Cambridg	e Drive			Green Vall	ey Road			Cambridg	ge Drive			Green Val	lley Road		
		Southbo	ound			Westbo	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	0	0	3	3	16	86	2	104	17	1	20	38	6	125	30	161	306
17:45	4	3	2	9	6	79	2	87	22	2	17	41	4	110	27	141	278
Total	7	5	9	21	39	319	8	366	90	5	73	168	25	527	140	692	1247
18:00	1	1	2	4	11	59	4	74	15	0	17	32	6	119	32	157	267
18:15	2	3	2	7	9	53	1	63	19	2	12	33	8	97	34	139	242
Grand Total	65	25	118	208	213	2021	37	2271	691	21	322	1034	85	2273	498	2856	6369
Apprch %	31.2	12	56.7		9.4	89	1.6		66.8	2	31.1		3	79.6	17.4		
Total %	1	0.4	1.9	3.3	3.3	31.7	0.6	35.7	10.8	0.3	5.1	16.2	1.3	35.7	7.8	44.8	

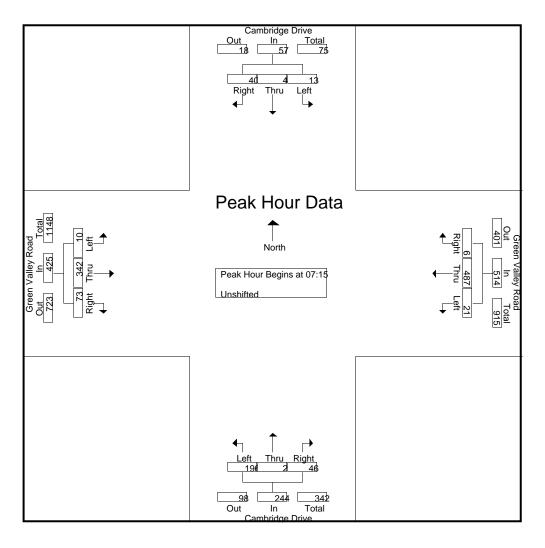
		Cambridg Southb	•			Green Val Westb	•			Cambridg Northb	,			Green Val Eastb	•		
		Southb	ouna			westb	ouna			North	ouna			Easto	ouna		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	rom 06:30 to	09:15 - Pea	k 1 of 1														
Peak Hour for Entire In	ntersection I	Begins at 07	:15														
07:15	5	2	11	18	2	165	0	167	71	0	6	77	6	76	17	99	361
07:30	3	0	11	14	9	122	0	131	63	0	13	76	1	126	30	157	378
07:45	4	1	7	12	2	97	4	103	33	2	14	49	2	72	16	90	254
08:00	1	1	11	13	8	103	2	113	29	0	13	42	1	68	10	79	247
Total Volume	13	4	40	57	21	487	6	514	196	2	46	244	10	342	73	425	1240
% App. Total	22.8	7	70.2		4.1	94.7	1.2		80.3	0.8	18.9		2.4	80.5	17.2		
PHF	.650	.500	.909	.792	.583	.738	.375	.769	.690	.250	.821	.792	.417	.679	.608	.677	.820

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El Dorado County

File Name: 13-7063-008 Cambridge-Green Valley

Site Code : 00000000 Start Date : 1/31/2013



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El Dorado County

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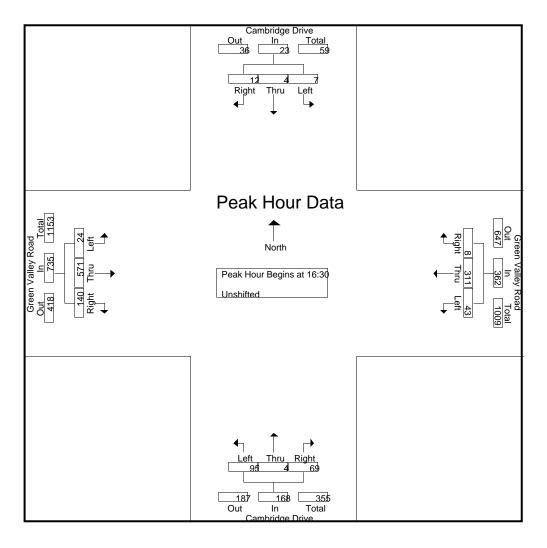
		Cambrid	lge Drive			Green Val	lley Road			Cambrid	lge Drive			Green Val	lley Road		
		South	bound			Westb	ound			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pe	eak 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 1	6:30														
16:30	3	1	6	10	11	80	3	94	23	0	18	41	5	147	23	175	320
16:45	1	1	2	4	15	77	1	93	21	2	15	38	4	132	34	170	305
17:00	2	0	1	3	7	63	3	73	24	1	19	44	10	156	41	207	327
17:15	1	2	3	6	10	91	1	102	27	1	17	45	5	136	42	183	336
Total Volume	7	4	12	23	43	311	8	362	95	4	69	168	24	571	140	735	1288
% App. Total	30.4	17.4	52.2		11.9	85.9	2.2		56.5	2.4	41.1		3.3	77.7	19		
PHF	.583	.500	.500	.575	.717	.854	.667	.887	.880	.500	.908	.933	.600	.915	.833	.888	.958

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El Dorado County

File Name: 13-7063-008 Cambridge-Green Valley

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	С	ameron P	ark Drive	е		Green Val	ley Road		(Cameron I	Park Drive	9		Green Va	lley Road	I	
		Southb	oound			Westb	ound			Northl	bound				ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru		App. Total	Int. Total
06:30	3	11	3	17	12	36	2	50	27	4	4	35	3	18	30	51	153
06:45	11	10	5	16	19	50	0	69	36	4	7	47	0	16	28	44	176
Total	4	21	8	33	31	86	2	119	63	8	11	82	3	34	58	95	329
07:00	0	17	7	24	23	55	2	80	58	2	8	68	1	14	20	35	207
07:15	0	9	9	18	31	75	1	107	83	4	10	97	3	33	49	85	307
07:30	3	27	6	36	21	61	0	82	66	3	11	80	8	44	92	144	342
07:45	5	17	4	26	25	52	1	78	46	4	31	81	9	29	59	97	282
Total	8	70	26	104	100	243	4	347	253	13	60	326	21	120	220	361	1138
08:00	1	10	4	15	35	54	2	91	60	4	10	83	2	20	ΕA	76	265
08:00	4	14	4	28		54 50	4	74	43	4	19 16	62	2 8	20 39	54 42	89	
08:30	7	9	10 8	26 24	23 41	50 54	1	99	43 47	3 4	49	100	o 13	53	42 41	107	253
08:45	2	9 15	6	23	61	54 51	3	115	47 47	4 5	49 15	67	14	34	52	107	330 305
Total	14	48	28	90	160	209	10	379	197	16	99	312	37	146	189	372	1153
rotar	14	48	28	90	160	209	10	3/9	197	16	99	312	31	146	189	3/2	1153
09:00	1	9	4	14	22	41	1	64	42	10	13	65	6	32	26	64	207
09:15	1	7	3	11	14	32	0	46	22	8	5	35	6	20	24	50	142
Total	2	16	7	25	36	73	1	110	64	18	18	100	12	52	50	114	349
45:20	2	42	2	40	40	24	4	54	F.7	24	22	400	40	50	0.5	400	204
15:30	3 7	12 10	3	18 21	19 17	31 37	4	54 57	57 53	21	22 33	100 117	12 12	52 58	65 75	129 145	301
15:45 Total	10	22	7	39	36	68	<u>3</u>	111	110	31 52	 55	217	24	110	140	274	340 641
Total	10	22	,	39	30	00	,	1111	110	52	55	217	24	110	140	214	041
16:00	3	10	8	21	22	26	0	48	45	20	29	94	10	57	61	128	291
16:15	5	10	3	18	27	30	5	62	44	18	28	90	16	71	67	154	324
16:30	4	9	7	20	22	43	8	73	65	13	32	110	18	63	70	151	354
16:45	6	17	3	26	22	36	8	66	45	26	36	107	21	74	67	162	361
Total	18	46	21	85	93	135	21	249	199	77	125	401	65	265	265	595	1330
17:00	5	18	5	28	21	32	0	53	57	19	28	104	23	66	67	156	341
17:15	10	22	4	36	18	35	3	56	57	39	34	130	22	62	65	149	371
	-					= =	-	1	-							4 of 598	

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El Dorado County

File Name: 13-7063-009 Cameron Park-Green Valley

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							Giou	ps i illiteu- t	mannieu								
	С	ameron P	ark Driv	е	Green Valley Road				С	ameron P	•						
		Southb	ound			Westb	ound		Northbound								
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	7	26	5	38	22	35	4	61	58	28	32	118	12	71	55	138	355
17:45	3	20	6	29	27	32	2	61	61	20	32	113	14	52	51	117	320
Total	25	86	20	131	88	134	9	231	233	106	126	465	71	251	238	560	1387
18:00	5	5	1	11	20	28	3	51	50	23	31	104	8	56	54	118	284
18:15	9	13	3	25	18	20	4	42	36	18	24	78	20	63	43	126	271
Grand Total	95	327	121	543	582	996	61	1639	1205	331	549	2085	261	1097	1257	2615	6882
Apprch %	17.5	60.2	22.3		35.5	60.8	3.7		57.8	15.9	26.3		10	42	48.1		
Total %	1.4	4.8	1.8	7.9	8.5	14.5	0.9	23.8	17.5	4.8	8	30.3	3.8	15.9	18.3	38	

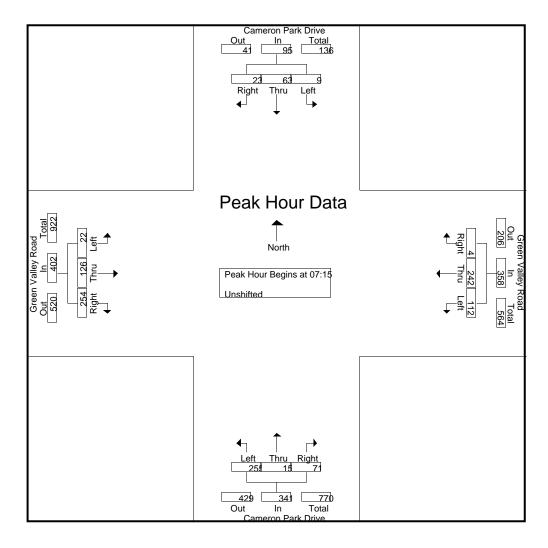
	С	ameron P	ark Driv	е		Green Va	lley Road	t	(Cameron	Park Driv	е					
		Southb	ound			Westk	ound			North	bound						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis	From 06:30	to 09:15 -	Peak 1 d	of 1													
Peak Hour for Entire	Intersection	n Begins a	t 07:15														
07:15	0	9	9	18	31	75	1	107	83	4	10	97	3	33	49	85	307
07:30	3	27	6	36	21	61	0	82	66	3	11	80	8	44	92	144	342
07:45	5	17	4	26	25	52	1	78	46	4	31	81	9	29	59	97	282
08:00	1	10	4	15	35	54	2	91	60	4	19	83	2	20	54	76	265
Total Volume	9	63	23	95	112	242	4	358	255	15	71	341	22	126	254	402	1196
% App. Total	9.5	66.3	24.2		31.3	67.6	1.1		74.8	4.4	20.8		5.5	31.3	63.2		
PHF	.450	.583	.639	.660	.800	.807	.500	.836	.768	.938	.573	.879	.611	.716	.690	.698	.874

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El Dorado County

File Name: 13-7063-009 Cameron Park-Green Valley

Site Code : 00000000 Start Date : 1/31/2013



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File Name: 13-7063-009 Cameron Park-Green Valley

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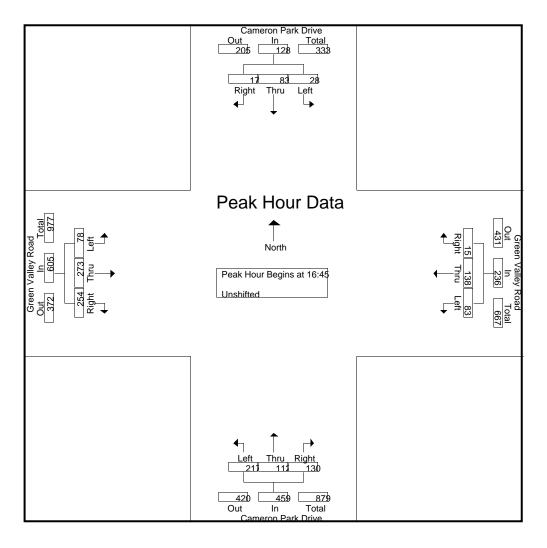
	С	ameron	Park Driv	е	Green Valley Road					Cameron	Park Driv	е		t			
		South	bound		Westbound					North	bound						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis F	From 15:30	to 18:15	- Peak 1 d	of 1				-									
Peak Hour for Entire	Intersection	n Begins a	at 16:45														
16:45	6	17	3	26	22	36	8	66	45	26	36	107	21	74	67	162	361
17:00	5	18	5	28	21	32	0	53	57	19	28	104	23	66	67	156	341
17:15	10	22	4	36	18	35	3	56	57	39	34	130	22	62	65	149	371
17:30	7	26	5	38	22	35	4	61	58	28	32	118	12	71	55	138	355
Total Volume	28	83	17	128	83	138	15	236	217	112	130	459	78	273	254	605	1428
% App. Total	21.9	64.8	13.3		35.2	58.5	6.4		47.3	24.4	28.3		12.9	45.1	42		
PHF	.700	.798	.850	.842	.943	.958	.469	.894	.935	.718	.903	.883	.848	.922	.948	.934	.962

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El Dorado County

File Name: 13-7063-009 Cameron Park-Green Valley

Site Code : 00000000 Start Date : 1/31/2013



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El Dorado County

File Name: 13-7063-010 El Dorado Hills-Francisco

Site Code : 00000000 Start Date : 1/29/2013

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	F	El Dorado I Southb				Francisco Westbo	Drive	ps I i i i i i i i i i i i i i i i i i i		El Dorado Northb	ound			Francisco Eastbo			Int Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	1	47	0	48	4	3	1	8	28	8	2	38	0	0	54	54	148
06:45	4	66	0	70	1	3	2	6	51	8	1	60	0	1	83	84	220
Total	5	113	0	118	5	6	3	14	79	16	3	98	0	1	137	138	368
07:00	2	107	0	109	8	16	2	26	71	14	2	87	1	6	118	125	347
07:15	5	74	1	80	4	17	4	25	106	37	3	146	1	5	138	144	395
07:30	13	69	1	83	10	11	5	26	111	20	1	132	3	9	105	117	358
07:45	7	79	1	87	5	11	8	24	92	31	2	125	0	13	133	146	382
Total	27	329	3	359	27	55	19	101	380	102	8	490	5	33	494	532	1482
08:00	18	60	1	79	5	13	2	20	87	28	4	119	1	8	110	119	337
08:15	26	57	1	84	10	13	11	34	94	32	13	139	1	10	129	140	397
08:30	74	52	0	126	25	26	21	72	88	24	18	130	0	18	81	99	427
08:45	9	60	1	70	27	29	23	79	59	32	5	96	1	11	106	118	363
Total	127	229	3	359	67	81	57	205	328	116	40	484	3	47	426	476	1524
09:00	4	39	0	43	4	6	2	12	63	18	0	81	0	2	78	80	216
09:15	2	38	1	41	3	4	1	8	68	24	2	94	0	0	65	65	208
Total	6	77	1	84	7	10	3	20	131	42	2	175	0	2	143	145	424
15:30	4	40	0	44	3	11	3	17	86	45	5	136	1	11	99	111	308
15:45	6	41	0	47	3	10	7	20	92	70	7	169	0	9	118	127	363
Total	10	81	0	91	6	21	10	37	178	115	12	305	1	20	217	238	671
16:00	7	36	0	43	2	8	5	15	110	70	6	186	0	16	106	122	366
16:15	5	28	1	34	0	15	10	25	109	64	9	182	0	16	99	115	356
16:30	3	47	0	50	15	10	17	42	125	61	7	193	0	12	108	120	405
16:45	3	35	1	39	3	13	12	28	130	67	4	201	0	13	125	138	406
Total	18	146	2	166	20	46	44	110	474	262	26	762	0	57	438	495	1533
17:00	1	33	1	35	4	6	8	18	117	73	7	197	0	9	105	114	364
17:15	2	41	0	43	4	6	3	13	132	80	1	213	0	7	111	118	387
- 1	14 1617 311 170 0																

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(916) 771-8700

El Dorado County

File Name: 13-7063-010 El Dorado Hills-Francisco

Site Code : 00000000 Start Date : 1/29/2013

Page No : 2

Oroups Frince Chamica																	
]	El Dorado	Hills Blvd	l		Francisc	o Drive			El Dorado	Hills Blvd						
		Southb	ound		Westbound					Northb	ound		Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	3	26	0	29	5	7	9	21	132	65	7	204	2	11	123	136	390
17:45	2	41	0	43	5	7	4	16	107	55	5	167	1	16	129	146	372
Total	8	141	1	150	18	26	24	68	488	273	20	781	3	43	468	514	1513
18:00	5	28	1	34	1	3	3	7	96	64	4	164	0	10	133	143	348
18:15	1	20	0	21	1	4	5	10	95	54	1	150	0	11	84	95	276
Grand Total	207	1164	11	1382	152	252	168	572	2249	1044	116	3409	12	224	2540	2776	8139
Apprch %	15	84.2	0.8		26.6	44.1	29.4		66	30.6	3.4		0.4	8.1	91.5		
Total %	2.5	14.3	0.1	17	1.9	3.1	2.1	7	27.6	12.8	1.4	41.9	0.1	2.8	31.2	34.1	

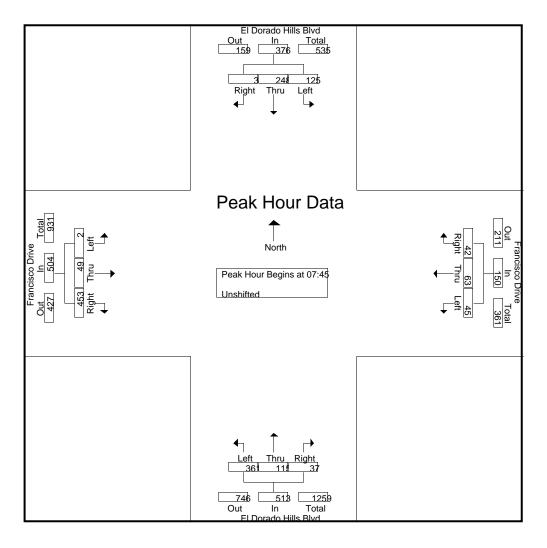
]	El Dorado Southb		i	Francisco Drive Westbound					El Dorado Northb							
													Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	rom 06:30 to	09:15 - Pea	ak 1 of 1														
Peak Hour for Entire In	ntersection E	Begins at 07	:45														
07:45	7	79	1	87	5	11	8	24	92	31	2	125	0	13	133	146	382
08:00	18	60	1	79	5	13	2	20	87	28	4	119	1	8	110	119	337
08:15	26	57	1	84	10	13	11	34	94	32	13	139	1	10	129	140	397
08:30	74	52	0	126	25	26	21	72	88	24	18	130	0	18	81	99	427
Total Volume	125	248	3	376	45	63	42	150	361	115	37	513	2	49	453	504	1543
% App. Total	33.2	66	0.8		30	42	28		70.4	22.4	7.2		0.4	9.7	89.9		
PHF	.422	.785	.750	.746	.450	.606	.500	.521	.960	.898	.514	.923	.500	.681	.852	.863	.903

(916) 771-8700

El Dorado County

File Name: 13-7063-010 El Dorado Hills-Francisco

Site Code : 00000000 Start Date : 1/29/2013



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El Dorado County

File Name: 13-7063-010 El Dorado Hills-Francisco

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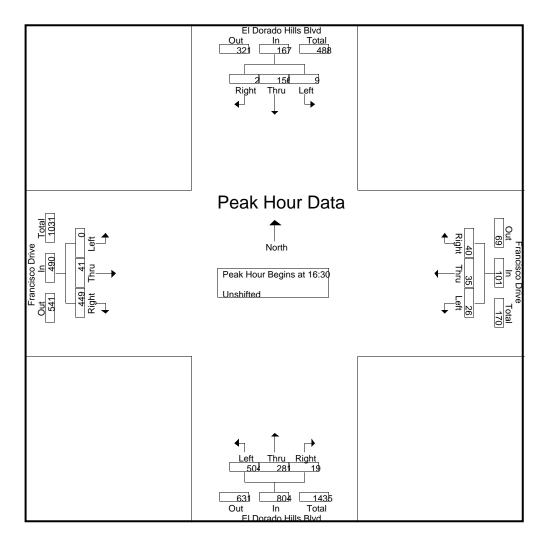
	I	El Dorado l	Hills Blvd	I		Francisc	o Drive			El Dorado	Hills Blvd	l		Franciso	co Drive		
		Southbo	ound			Westb	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pea	k 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 16:	:30														
16:30	3	47	0	50	15	10	17	42	125	61	7	193	0	12	108	120	405
16:45	3	35	1	39	3	13	12	28	130	67	4	201	0	13	125	138	406
17:00	1	33	1	35	4	6	8	18	117	73	7	197	0	9	105	114	364
17:15	2	41	0	43	4	6	3	13	132	80	1	213	0	7	111	118	387
Total Volume	9	156	2	167	26	35	40	101	504	281	19	804	0	41	449	490	1562
% App. Total	5.4	93.4	1.2		25.7	34.7	39.6		62.7	35	2.4		0	8.4	91.6		
PHF	.750	.830	.500	.835	.433	.673	.588	.601	.955	.878	.679	.944	.000	.788	.898	.888	.962

(916) 771-8700

El Dorado County

File Name: 13-7063-010 El Dorado Hills-Francisco

Site Code : 00000000 Start Date : 1/29/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-011 El Dorado Hills-Harvard

Site Code : 00000000 Start Date : 1/29/2013

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Groups Printed- Unshifted

		I	El Dorado I Southb		I		Harvar Westbo			F	El Dorado l Northb				Eastbo	ound		
06:30 6 123 0 129 23 0 5 28 0 29 4 33 0 0 0 0 0 190	Start Time	Left			App. Total	Left			App. Total	Left			App. Total	Left			App. Total	Int. Total
Total 41 285 0 326 51 0 12 63 0 78 34 112 0 0 0 0 501 07:00 124 161 0 285 63 0 31 94 0 50 106 156 0 0 0 0 535 07:15 71 226 0 297 120 0 69 189 0 66 103 169 0 0 0 0 655 07:30 32 182 0 214 118 0 20 101 0 191 0 0 0 0 549 07:45 38 241 0 279 98 0 21 119 0 92 29 121 0 0 0 0 259 08:00 34 171 383 241 0 0 0 <		6	123			23				0	29			0				
07:00	06:45	35	162	0	197	28	0	7	35	0	49	30	79	0	0	0	0	311
07:15 71 226 0 297 120 0 69 189 0 66 103 169 0 0 0 0 655 07:30 32 182 0 214 118 0 26 144 0 101 90 191 0 0 0 549 07:45 38 241 0 279 98 0 21 119 0 92 29 121 0 0 0 0 549 08:00 34 171 0 205 51 0 34 85 0 96 28 124 0 0 0 0 414 08:15 68 166 0 234 63 0 52 115 0 86 67 153 0 0 0 0 0 0 417 08:30 17 183 0 200 <	Total	41	285	0	326	51	0	12	63	0	78	34	112	0	0	0	0	501
07:30 32 182 0 214 118 0 26 144 0 101 90 191 0 0 0 0 0 549 07:45 38 241 0 279 98 0 21 119 0 92 29 121 0 0 0 0 0 0 519 07:45 389 0 147 546 0 309 328 637 0 0 0 0 0 2258 08:00 34 171 0 205 51 0 34 85 0 96 28 124 0 0 0 0 0 0 414 08:15 68 166 0 234 63 0 52 115 0 86 67 153 0 0 0 0 0 502 08:30 17 183 0 200 44 0 41 85 0 116 16 132 0 0 0 0 0 417 08:45 0 0 0 0 0 0 0 0 0	07:00	124	161	0	285	63	0	31	94	0	50	106	156	0	0	0	0	535
O7-45 38 241 0 279 98 0 21 119 0 92 29 121 0 0 0 0 0 519	07:15	71	226	0	297	120	0	69	189	0	66	103	169	0	0	0	0	655
Total 265 810 0 1075 399 0 147 546 0 309 328 637 0 0 0 0 2258 08:00 34 171 0 205 51 0 34 85 0 96 28 124 0 0 0 0 0 502 18:15 68 166 0 234 63 0 52 115 0 86 67 153 0 0 0 0 502 08:45 30 225 0 255 30 0 15 45 0 79 12 91 0 0 0 0 4172 09:00 10 136 0 146 31 0 10 41 0 78 8 86 0 0 0 0 273 09:15 4 135 0 139 <td< td=""><td>07:30</td><td>32</td><td>182</td><td>0</td><td>214</td><td>118</td><td>0</td><td>26</td><td>144</td><td>0</td><td>101</td><td>90</td><td>191</td><td>0</td><td>0</td><td>0</td><td>0</td><td>549</td></td<>	07:30	32	182	0	214	118	0	26	144	0	101	90	191	0	0	0	0	549
08:00 34 171 0 205 51 0 34 85 0 96 28 124 0 0 0 0 414 08:15 68 166 0 234 63 0 52 1115 0 86 67 153 0 0 0 0 502 08:45 30 225 0 255 30 0 15 45 0 79 12 91 0 0 0 0 417 08:45 30 225 0 255 30 0 15 45 0 79 12 91 0 0 0 0 331 10:10 14 31 0 10 44 10 78 8 86 0 0 0 0 0 273 09:15 4 135 0 139 15 0 4 19	07:45	38	241	0	279	98	0			0	92	29	121	0	0	0	0	519
08:15 68 166 0 234 63 0 52 115 0 86 67 153 0 0 0 0 502 08:30 17 183 0 200 44 0 41 85 0 116 16 132 0 0 0 0 417 08:45 30 225 0 255 30 0 15 45 0 79 12 91 0 0 0 0 0 391 Total 149 745 0 894 188 0 142 330 0 377 123 500 0 0 0 0 1724 09:00 10 136 0 146 31 0 10 41 19 0 78 8 8 86 0 0 0 0 273 09:15 4 135 0	Total	265	810	0	1075	399	0	147	546	0	309	328	637	0	0	0	0	2258
08:30 17 183 0 200 44 0 41 85 0 116 16 132 0 0 0 0 417 08:45 30 225 0 255 30 0 15 45 0 79 12 91 0 0 0 0 391 Total 149 745 0 894 188 0 142 330 0 377 123 500 0 0 0 0 0 1724 09:00 10 136 0 146 31 0 10 41 0 78 8 86 0 0 0 0 273 09:15 4 135 0 139 15 0 4 19 0 94 9 103 0 0 0 0 273 09:15 4 135 0 136 36 </td <td>08:00</td> <td>34</td> <td>171</td> <td>0</td> <td>205</td> <td>51</td> <td>0</td> <td></td> <td>85</td> <td>0</td> <td>96</td> <td>28</td> <td>124</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>414</td>	08:00	34	171	0	205	51	0		85	0	96	28	124	0	0	0	0	414
08:45 30 225 0 255 30 0 15 45 0 79 12 91 0 0 0 0 391 Total 149 745 0 894 188 0 142 330 0 377 123 500 0	08:15	68	166	0	234	63	0	52	115	0	86	67	153	0	0	0	0	502
Total 149 745 0 894 188 0 142 330 0 377 123 500 0 0 0 0 1724 09:00 10 136 0 146 31 0 10 41 0 78 8 86 0 0 0 0 273 09:15 4 135 0 139 15 0 4 19 0 94 9 103 0 0 0 261 Total 14 271 0 285 46 0 14 60 0 172 17 189 0 0 0 0 253 15:30 33 103 0 136 36 0 33 69 0 196 35 231 0 0 0 436 15:45 28 129 0 157 29 0 27 <th< td=""><td>08:30</td><td>17</td><td>183</td><td>0</td><td>200</td><td>44</td><td>0</td><td>41</td><td>85</td><td>0</td><td>116</td><td>16</td><td>132</td><td>0</td><td>0</td><td>0</td><td>0</td><td>417</td></th<>	08:30	17	183	0	200	44	0	41	85	0	116	16	132	0	0	0	0	417
09:00 10 136 0 146 31 0 10 41 0 78 8 86 0 0 0 0 273 09:15 4 135 0 139 15 0 4 19 0 94 9 103 0 0 0 0 261 Total 14 271 0 285 46 0 14 60 0 172 17 189 0 0 0 0 534 15:30 33 103 0 136 36 0 33 69 0 196 35 231 0 0 0 436 15:45 28 129 0 157 29 0 27 56 0 172 28 200 0 0 0 413 Total 61 232 0 293 65 0 60 125 </td <td>08:45</td> <td>30</td> <td>225</td> <td>0</td> <td>255</td> <td></td> <td>0</td> <td></td> <td></td> <td>0</td> <td></td> <td>12</td> <td>-</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>391</td>	08:45	30	225	0	255		0			0		12	-	0	0	0	0	391
O9:15 4 135 0 139 15 0 4 19 0 94 9 103 0 0 0 0 261 Total 14 271 0 285 46 0 14 60 0 172 17 189 0 0 0 0 534 15:30 33 103 0 136 36 0 33 69 0 196 35 231 0 0 0 0 436 15:45 28 129 0 157 29 0 27 56 0 172 28 200 0 0 0 413 Total 61 232 0 293 65 0 60 125 0 368 63 431 0 0 0 0 449 16:00 25 131 0 156 27 0 34	Total	149	745	0	894	188	0	142	330	0	377	123	500	0	0	0	0	1724
Total 14 271 0 285 46 0 14 60 0 172 17 189 0 0 0 0 534 15:30 33 103 0 136 36 0 33 69 0 196 35 231 0 0 0 0 0 436 15:45 28 129 0 157 29 0 27 56 0 172 28 200 0 0 0 0 413 Total 61 232 0 293 65 0 60 125 0 368 63 431 0 0 0 0 0 849 16:90 25 131 0 156 27 0 34 61 0 176 44 220 0 0 0 0 437 16:15 40 117 0 157 31 0 33 64 0 214 27 241 0 0 0 0 437 16:30 38 112 0 150 17 0 29 46 0 209 32 241 0 0 0 0 437 16:45 43 137 0 180 32 0 43 75 0 198 45 243 0 0 0 0 498 Total 146 497 0 643 107 0 139 246 0 797 148 945 0 0 0 0 0 503 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 503 16:45 40 117 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 503 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 0 0 0 0	09:00	10	136	0	146		0	10		0	78	8	86	0	0	0		273
15:30 33 103 0 136 36 0 33 69 0 196 35 231 0 0 0 0 436 15:45 28 129 0 157 29 0 27 56 0 172 28 200 0 0 0 0 0 Total 61 232 0 293 65 0 60 125 0 368 63 431 0 0 0 0 0 16:00 25 131 0 156 27 0 34 61 0 176 44 220 0 0 0 0 437 16:15 40 117 0 157 31 0 33 64 0 214 27 241 0 0 0 0 462 16:30 38 112 0 150 17 0 29 46 0 209 32 241 0 0 0 0 437 16:45 43 137 0 180 32 0 43 75 0 198 45 243 0 0 0 0 498 Total 146 497 0 643 107 0 139 246 0 797 148 945 0 0 0 0 503 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 503 16:45 43 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 503 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 503 180	09:15	4	135	0	139	15	0	4	19	0	94	9	103	0	0	0	0	261
15:45 28 129 0 157 29 0 27 56 0 172 28 200 0 0 0 0 0 413 Total 61 232 0 293 65 0 60 125 0 368 63 431 0 0 0 0 0 849 16:00 25 131 0 156 27 0 34 61 0 176 44 220 0 0 0 0 0 437 16:15 40 117 0 157 31 0 33 64 0 214 27 241 0 0 0 0 0 462 16:30 38 112 0 150 17 0 29 46 0 209 32 241 0 0 0 0 437 16:45 43 137 0 180 32 0 43 75 0 198 45 243 0 0 0 0 498 Total 146 497 0 643 107 0 139 246 0 797 148 945 0 0 0 0 0 172 28 200 0 0 0 0 0 0 0 413 413 414 415 415 415 415 415 415 415 415 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 503	Total	14	271	0	285	46	0	14	60	0	172	17	189	0	0	0	0	534
15:45 28 129 0 157 29 0 27 56 0 172 28 200 0 0 0 0 0 413 Total 61 232 0 293 65 0 60 125 0 368 63 431 0 0 0 0 0 849 16:00 25 131 0 156 27 0 34 61 0 176 44 220 0 0 0 0 0 437 16:15 40 117 0 157 31 0 33 64 0 214 27 241 0 0 0 0 0 462 16:30 38 112 0 150 17 0 29 46 0 209 32 241 0 0 0 0 437 16:45 43 137 0 180 32 0 43 75 0 198 45 243 0 0 0 0 498 Total 146 497 0 643 107 0 139 246 0 797 148 945 0 0 0 0 0 172 28 200 0 0 0 0 0 0 0 413 413 414 415 415 415 415 415 415 415 415 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 0 503	15:30	33	103	0	136	36	0	22	60	0	106	35	231	0	0	0	ا م	136
Total 61 232 0 293 65 0 60 125 0 368 63 431 0 0 0 0 849 16:00 25 131 0 156 27 0 34 61 0 176 44 220 0 0 0 0 437 16:15 40 117 0 157 31 0 33 64 0 214 27 241 0 0 0 0 462 16:30 38 112 0 150 17 0 29 46 0 209 32 241 0 0 0 0 437 16:45 43 137 0 180 32 0 43 75 0 198 45 243 0 0 0 0 498 Total 146 497 0 643 107																		
16:15 40 117 0 157 31 0 33 64 0 214 27 241 0 0 0 0 462 16:30 38 112 0 150 17 0 29 46 0 209 32 241 0 0 0 0 437 16:45 43 137 0 180 32 0 43 75 0 198 45 243 0 0 0 0 498 Total 146 497 0 643 107 0 139 246 0 797 148 945 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 503																		
16:15 40 117 0 157 31 0 33 64 0 214 27 241 0 0 0 0 462 16:30 38 112 0 150 17 0 29 46 0 209 32 241 0 0 0 0 437 16:45 43 137 0 180 32 0 43 75 0 198 45 243 0 0 0 0 498 Total 146 497 0 643 107 0 139 246 0 797 148 945 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 503	16:00	25	131	0	156	27	0	34	61	0	176	44	220	0	0	0	0	437
16:30 38 112 0 150 17 0 29 46 0 209 32 241 0 0 0 0 437 16:45 43 137 0 180 32 0 43 75 0 198 45 243 0 0 0 0 498 Total 146 497 0 643 107 0 139 246 0 797 148 945 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 503																		
16:45 43 137 0 180 32 0 43 75 0 198 45 243 0 0 0 0 498 Total 146 497 0 643 107 0 139 246 0 797 148 945 0 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 503	16:30	38		0		17	0		46	0	209	32	241	0	0	0	0	437
Total 146 497 0 643 107 0 139 246 0 797 148 945 0 0 0 0 1834 17:00 35 127 0 162 38 0 29 67 0 225 49 274 0 0 0 0 503	16:45			0			0		75	0				0	0	0		
	Total			0			0	139	246	0	797		945	0	0	0	0	
17:15 37 128 0 165 34 0 25 59 0 208 43 251 0 0 0 0 0 475	17:00	35	127	0	162	38	0	29	67	0	225	49	274	0	0	0	0	503
	17:15	37		0			0	25		0	208		251	0	0	0	0	

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El Dorado County

File Name: 13-7063-011 El Dorado Hills-Harvard

Site Code : 00000000 Start Date : 1/29/2013

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Groups Printed- Unshifted

							Grou	ps i imieu- C	nsmittu								
]	El Dorado l	Hills Blvd	l		Harvar	d Way			El Dorado	Hills Blvd	<u> </u>					
		Southbo	ound			Westbo	ound			Northl	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	31	141	0	172	27	0	34	61	0	213	53	266	0	0	0	0	499
17:45	59	143	0	202	42	0	37	79	0	198	39	237	0	0	0	0	518
Total	162	539	0	701	141	0	125	266	0	844	184	1028	0	0	0	0	1995
18:00	42	102	0	144	34	0	16	50	0	175	43	218	0	0	0	0	412
18:15	31	103	0	134	22	0	28	50	0	155	35	190	0	0	0	0	374
Grand Total	911	3584	0	4495	1053	0	683	1736	0	3275	975	4250	0	0	0	0	10481
Apprch %	20.3	79.7	0		60.7	0	39.3		0	77.1	22.9		0	0	0		
Total %	8.7	34.2	0	42.9	10	0	6.5	16.6	0	31.2	9.3	40.5	0	0	0	0	

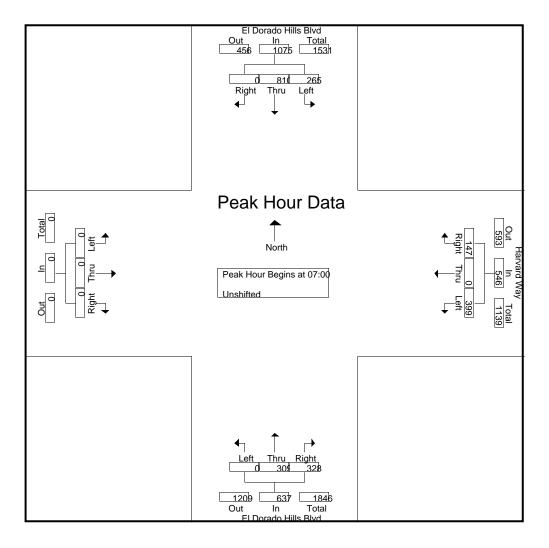
]	El Dorado l	Hills Blvd	l		Harvai	d Way		I	El Dorado	Hills Blvd						
		Southb	ound			Westb	ound			North	oound			Eastbo	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 06:30 to	09:15 - Pea	ık 1 of 1														
Peak Hour for Entire In	ntersection E	Segins at 07	:00														
07:00	124	161	0	285	63	0	31	94	0	50	106	156	0	0	0	0	535
07:15	71	226	0	297	120	0	69	189	0	66	103	169	0	0	0	0	655
07:30	32	182	0	214	118	0	26	144	0	101	90	191	0	0	0	0	549
07:45	38	241	0	279	98	0	21	119	0	92	29	121	0	0	0	0	519
Total Volume	265	810	0	1075	399	0	147	546	0	309	328	637	0	0	0	0	2258
% App. Total	24.7	75.3	0		73.1	0	26.9		0	48.5	51.5		0	0	0		
PHF	.534	.840	.000	.905	.831	.000	.533	.722	.000	.765	.774	.834	.000	.000	.000	.000	.862

(916) 771-8700

El Dorado County

File Name: 13-7063-011 El Dorado Hills-Harvard

Site Code : 00000000 Start Date : 1/29/2013



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El Dorado County

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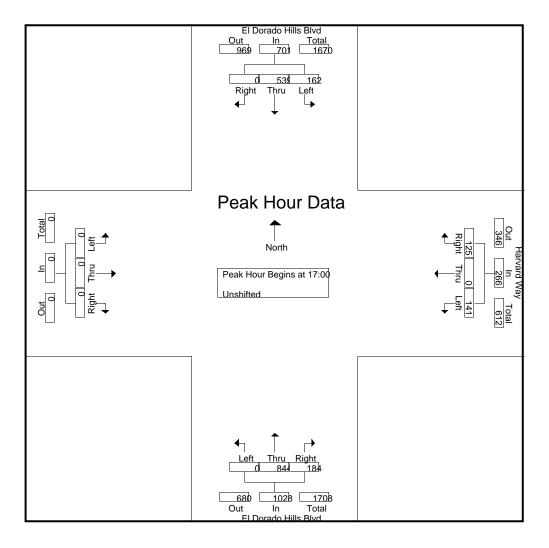
]	El Dorado	Hills Blvd	l		Harva	rd Way]	El Dorado	Hills Blvo	i					
		Southl	oound			Westb	ound			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pe	ak 1 of 1														
Peak Hour for Entire In	ntersection E	Begins at 1'	7:00														
17:00	35	127	0	162	38	0	29	67	0	225	49	274	0	0	0	0	503
17:15	37	128	0	165	34	0	25	59	0	208	43	251	0	0	0	0	475
17:30	31	141	0	172	27	0	34	61	0	213	53	266	0	0	0	0	499
17:45	59	143	0	202	42	0	37	79	0	198	39	237	0	0	0	0	518
Total Volume	162	539	0	701	141	0	125	266	0	844	184	1028	0	0	0	0	1995
% App. Total	23.1	76.9	0		53	0	47		0	82.1	17.9		0	0	0		
PHF	.686	.942	.000	.868	.839	.000	.845	.842	.000	.938	.868	.938	.000	.000	.000	.000	.963

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El Dorado County

File Name: 13-7063-011 El Dorado Hills-Harvard

Site Code : 00000000 Start Date : 1/29/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-012 El Dorado Hills-Serrano

Site Code : 00000000 Start Date : 1/30/2013

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Groups Printed- Unshifted

]	El Dorado Southb		I		Serrano Pa Westbo	arkway	ps rimed on		El Dorado Northb				Serrano P Eastbo	-		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	4	174	1	179	66	0	4	70	2	41	22	65	0	1	10	11	325
06:45	3	252	0	255	98	0	1	99	4	52	27	83	4	0	13	17	454
Total	7	426	1	434	164	0	5	169	6	93	49	148	4	1	23	28	779
07:00	4	276	2	282	110	2	8	120	1	110	32	143	8	2	13	23	568
07:15	13	358	3	374	140	2	14	156	4	83	37	124	5	3	19	27	681
07:30	29	351	9	389	134	3	27	164	2	83	42	127	6	6	16	28	708
07:45	16	398	9	423	178	6	29	213	14	101	49	164	4	4	17	25	825
Total	62	1383	23	1468	562	13	78	653	21	377	160	558	23	15	65	103	2782
08:00	8	292	6	306	119	3	16	138	12	124	45	181	8	2	32	42	667
08:15	4	306	13	323	136	4	11	151	8	134	44	186	4	1	9	14	674
08:30	5	265	8	278	124	5	7	136	19	109	43	171	3	1	19	23	608
08:45	6	295	19	320	98	8	4	110	39	96	41	176	23	2	47	72	678
Total	23	1158	46	1227	477	20	38	535	78	463	173	714	38	6	107	151	2627
09:00	7	218	3	228	97	2	4	103	16	98	34	148	7	3	35	45	524
09:15	1	147	2	150	61	0	4	65	9	103	36	148	5	4	18	27	390
Total	8	365	5	378	158	2	8	168	25	201	70	296	12	7	53	72	914
15:30	4	175	7	186	76	3	o	87	22	259	61	342	8	2	13	23	638
15:45	3	163	6	172	68	6	8 7	81	25	239	65	337	6	2 3	21	30	620
Total	7	338	13	358	144	9	15	168	47	506	126	679	14	5	34	53	1258
16:00	6	156	8	170	74	2	9	85	11	256	92	359	6	7	19	32	646
16:15	3	172	5	180	70	1	13	84	28	277	105	410	6	1	8	15	689
16:30	12	134	3	149	84	4	6	94	21	292	114	427	7	5	9	21	691
16:45	4	162	15	181	71	6	5	82	22	314	106	442	5	4	13	22	727
Total	25	624	31	680	299	13	33	345	82	1139	417	1638	24	17	49	90	2753
17:00	5	178	9	192	82	9	4	95	23	327	120	470	4	2	11	17	774
17:15	5	195	10	210	80	8	7	95	25	299	149	473	11	10	9	30	808
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(916) 771-8700

El Dorado County

File Name: 13-7063-012 El Dorado Hills-Serrano

Site Code : 00000000 Start Date : 1/30/2013

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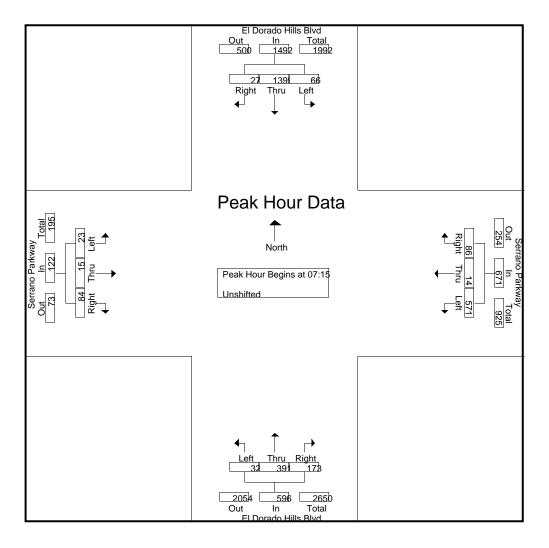
							Grou	ps r rinteu- U	nsmiteu								
]	El Dorado l	Hills Blvd	I		Serrano P	arkway]	El Dorado	Hills Blvd			Serrano F	Parkway		
		Southbo	ound			Westbe	ound			North	oound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	8	170	15	193	59	6	3	68	38	327	137	502	7	4	15	26	789
17:45	6	202	12	220	53	10	4	67	34	288	129	451	3	2	11	16	754
Total	24	745	46	815	274	33	18	325	120	1241	535	1896	25	18	46	89	3125
18:00	6	133	2	141	56	7	4	67	26	299	121	446	6	11	12	29	683
18:15	5	143	6	154	56	0	7	63	26	250	131	407	7	2	12	21	645
Grand Total	167	5315	173	5655	2190	97	206	2493	431	4569	1782	6782	153	82	401	636	15566
Apprch %	3	94	3.1		87.8	3.9	8.3		6.4	67.4	26.3		24.1	12.9	63.1		
Total %	1.1	34.1	1.1	36.3	14.1	0.6	1.3	16	2.8	29.4	11.4	43.6	1	0.5	2.6	4.1	

	1	El Dorado		I		Serrano P	•]	El Dorado		I		Serrano I	•		
		Southb	ound			Westbo	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 06:30 to	09:15 - Pea	ak 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 07	:15														
07:15	13	358	3	374	140	2	14	156	4	83	37	124	5	3	19	27	681
07:30	29	351	9	389	134	3	27	164	2	83	42	127	6	6	16	28	708
07:45	16	398	9	423	178	6	29	213	14	101	49	164	4	4	17	25	825
08:00	8	292	6	306	119	3	16	138	12	124	45	181	8	2	32	42	667
Total Volume	66	1399	27	1492	571	14	86	671	32	391	173	596	23	15	84	122	2881
% App. Total	4.4	93.8	1.8		85.1	2.1	12.8		5.4	65.6	29		18.9	12.3	68.9		
PHF	.569	.879	.750	.882	.802	.583	.741	.788	.571	.788	.883	.823	.719	.625	.656	.726	.873

(916) 771-8700 El Dorado County

File Name: 13-7063-012 El Dorado Hills-Serrano

Site Code : 00000000 Start Date : 1/30/2013



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El Dorado County

File Name: 13-7063-012 El Dorado Hills-Serrano

Site Code : 00000000 Start Date : 1/30/2013

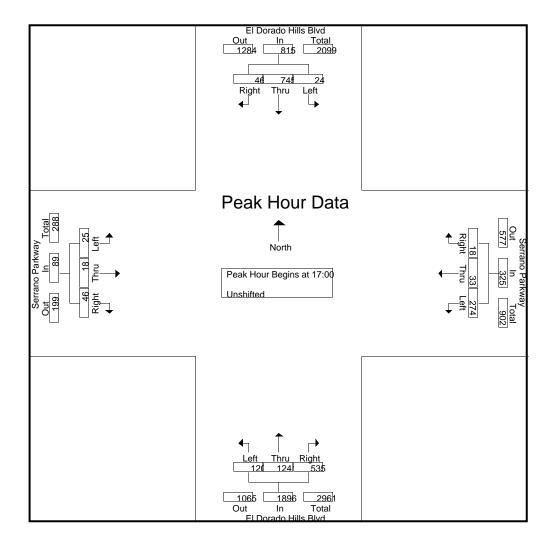
	I	El Dorado I	Hills Blvd	l		Serrano I	Parkway			El Dorado	Hills Blvo	i		Serrano 1	Parkway		
		Southb	ound			Westb	ound			North	oound			Easth	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pea	ak 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 17	:00														
17:00	5	178	9	192	82	9	4	95	23	327	120	470	4	2	11	17	774
17:15	5	195	10	210	80	8	7	95	25	299	149	473	11	10	9	30	808
17:30	8	170	15	193	59	6	3	68	38	327	137	502	7	4	15	26	789
17:45	6	202	12	220	53	10	4	67	34	288	129	451	3	2	11	16	754
Total Volume	24	745	46	815	274	33	18	325	120	1241	535	1896	25	18	46	89	3125
Mark App. Total	2.9	91.4	5.6		84.3	10.2	5.5		6.3	65.5	28.2		28.1	20.2	51.7		
PHF	.750	.922	.767	.926	.835	.825	.643	.855	.789	.949	.898	.944	.568	.450	.767	.742	.967

(916) 771-8700

El Dorado County

File Name: 13-7063-012 El Dorado Hills-Serrano

Site Code : 00000000 Start Date : 1/30/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-013 El Dorado Hills-Saratoga North

Site Code : 00000000 Start Date : 1/30/2013

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]	El Dorado Southb		1	Sa	aratoga Wa Westbo	ay (North)		El Dorado Northi	Hills Blvd ound		S	aratoga Wa Eastbo	•)	
Start Time	Left	Thru		App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	8	228	0	236	1	0	7	8	3	65	4	72	1	2	14	17	333
06:45	20	348	1	369	1	2	3	6	8	69	3	80	2	0	12	14	469
Total	28	576	1	605	2	2	10	14	11	134	7	152	3	2	26	31	802
07:00	19	339	7	365	5	0	16	21	12	123	2	137	9	3	25	37	560
07:15	27	505	6	538	2	0	13	15	8	99	2	109	7	1	21	29	691
07:30	36	447	2	485	1	1	9	11	21	118	4	143	2	2	28	32	671
07:45	29	561	3	593	1	2	14	17	18	140	11	169	5	3	24	32	811
Total	111	1852	18	1981	9	3	52	64	59	480	19	558	23	9	98	130	2733
08:00	31	436	2	469	5	1	16	22	13	161	5	179	5	0	23	28	698
08:15	29	422	1	452	6	1	12	19	14	163	12	189	8	1	23	32	692
08:30	33	368	5	406	4	2	15	21	22	159	10	191	5	1	41	47	665
08:45	35	394	3	432	6	1	12	19	25	155	14	194	3	8	49	60	705
Total	128	1620	11	1759	21	5	55	81	74	638	41	753	21	10	136	167	2760
09:00	40	317	4	361	7	1	27	35	19	121	5	145	3	7	37	47	588
09:15	17	220	3	240	4	2	19	25	14	120	5	139	6	3	20	29	433
Total	57	537	7	601	11	3	46	60	33	241	10	284	9	10	57	76	1021
15:30	50	202	10	262	20	6	69	95	25	239	24	288	9	3	21	33	678
15:45	44	199	3	246	15	4	67	86	30	275	22	327	6	4	18	28	687
Total	94	401	13	508	35	10	136	181	55	514	46	615	15	7	39	61	1365
16:00	34	186	7	227	14	3	73	90	23	259	17	299	18	5	27	50	666
16:15	34	227	7	268	10	2	68	80	38	327	13	378	8	5	22	35	761
16:30	36	206	8	250	14	4	85	103	23	347	10	380	12	7	27	46	779
16:45	45	193	7	245	11	3	84	98	25	342	19	386	6	5	22	33	762
Total	149	812	29	990	49	12	310	371	109	1275	59	1443	44	22	98	164	2968
17:00	37	217	5	259	10	1	85	96	23	345	13	381	11	6	18	35	771
17:15	40	213	6	259	16	1	63	80	24	441	21	486	5	6	22	33	858
				- 1									1.	1_1617		4 of 508	

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El Dorado County

File Name: 13-7063-013 El Dorado Hills-Saratoga North

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							Grou	ps r rinteu- U	usiiiiteu								
]	El Dorado l	Hills Blvd	l	Sa	aratoga W	ay (North)]	El Dorado	Hills Blvd		S	aratoga W	ay (North	1)	
		Southbo	ound			Westbo	ound			North	oound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	36	204	9	249	6	6	72	84	22	402	24	448	9	2	13	24	805
17:45	38	174	7	219	7	4	61	72	32	367	18	417	12	0	14	26	734
Total	151	808	27	986	39	12	281	332	101	1555	76	1732	37	14	67	118	3168
18:00	31	190	4	225	9	5	73	87	33	383	22	438	8	3	13	24	774
18:15	26	164	9	199	5	4	70	79	20	337	18	375	9	4	14	27	680
Grand Total	775	6960	119	7854	180	56	1033	1269	495	5557	298	6350	169	81	548	798	16271
Apprch %	9.9	88.6	1.5		14.2	4.4	81.4		7.8	87.5	4.7		21.2	10.2	68.7		
Total %	4.8	42.8	0.7	48.3	1.1	0.3	6.3	7.8	3	34.2	1.8	39	1	0.5	3.4	4.9	

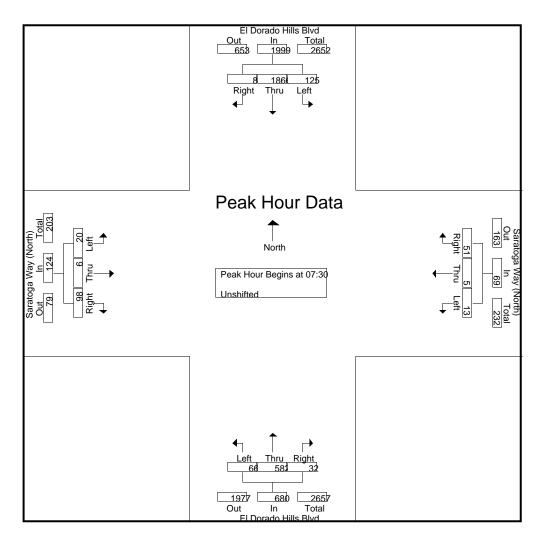
]	El Dorado Southb		l	Sa	aratoga W Westb	• `)]	El Dorado Northb		l	S	aratoga W Eastb	•)	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	rom 06:30 to	09:15 - Pea	ak 1 of 1					_									
Peak Hour for Entire In	ntersection E	Begins at 07	:30														
07:30	36	447	2	485	1	1	9	11	21	118	4	143	2	2	28	32	671
07:45	29	561	3	593	1	2	14	17	18	140	11	169	5	3	24	32	811
08:00	31	436	2	469	5	1	16	22	13	161	5	179	5	0	23	28	698
08:15	29	422	1	452	6	1	12	19	14	163	12	189	8	1	23	32	692
Total Volume	125	1866	8	1999	13	5	51	69	66	582	32	680	20	6	98	124	2872
% App. Total	6.3	93.3	0.4		18.8	7.2	73.9		9.7	85.6	4.7		16.1	4.8	79		
PHF	.868	.832	.667	.843	.542	.625	.797	.784	.786	.893	.667	.899	.625	.500	.875	.969	.885

(916) 771-8700

El Dorado County

File Name: 13-7063-013 El Dorado Hills-Saratoga North

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(916) 771-8700

El Dorado County

File Name: 13-7063-013 El Dorado Hills-Saratoga North

Site Code : 00000000 Start Date : 1/30/2013

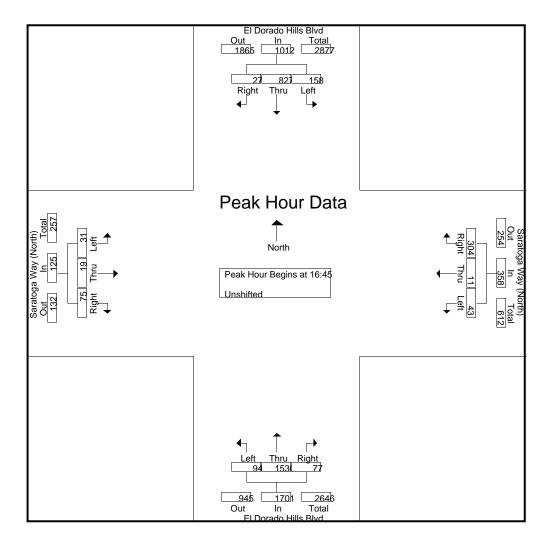
		El Dorado	Hills Blvd	I	Sa	aratoga W	ay (North)]	El Dorado	Hills Blvd	i	S	aratoga W	ay (North)	
		South	bound			Westb	ound			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pe	eak 1 of 1	_													
Peak Hour for Entire In	ntersection I	Begins at 1	6:45														
16:45	45	193	7	245	11	3	84	98	25	342	19	386	6	5	22	33	762
17:00	37	217	5	259	10	1	85	96	23	345	13	381	11	6	18	35	771
17:15	40	213	6	259	16	1	63	80	24	441	21	486	5	6	22	33	858
17:30	36	204	9	249	6	6	72	84	22	402	24	448	9	2	13	24	805
Total Volume	158	827	27	1012	43	11	304	358	94	1530	77	1701	31	19	75	125	3196
% App. Total	15.6	81.7	2.7		12	3.1	84.9		5.5	89.9	4.5		24.8	15.2	60		
PHF	.878	.953	.750	.977	.672	.458	.894	.913	.940	.867	.802	.875	.705	.792	.852	.893	.931

(916) 771-8700

El Dorado County

File Name: 13-7063-013 El Dorado Hills-Saratoga North

Site Code : 00000000 Start Date : 1/30/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-014 El Dorado Hills-Saratoga South

Site Code : 00000000 Start Date : 1/30/2013

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	1	El Dorado	Hille Rlvd	1	Çe	aratoga Wa		ps Printed- Un		El Dorado 1	Hille Rlyd						
	'	Southb		•	56	Westbo		′	•	Northb				Eastbo	und		
Start Time	Left	Thru		App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	14	220	0	234	26	0	6	32	0	69	29	98	0	0	0	0	364
06:45	12	362	0	374	26	0	10	36	0	73	34	107	0	0	0	0	517
Total		582	0	608	52	0	16	68	0	142	63	205	0	0	0	0	881
10141	1 20	302	Ü	000	32	· ·	10	00	O	1 12	05	203	Ü	· ·	O	0	001
07:00	9	355	0	364	33	0	10	43	0	129	35	164	0	0	0	0	571
07:15	10	481	0	491	42	0	7	49	0	102	32	134	0	0	0	0	674
07:30	9	474	0	483	42	0	6	48	0	139	38	177	0	0	0	0	708
07:45	16	552	0	568	47	0	6	53	0	158	41	199	0	0	0	0	820
Total	44	1862	0	1906	164	0	29	193	0	528	146	674	0	0	0	0	2773
				'				"				,				,	
08:00	14	452	0	466	50	0	12	62	0	170	42	212	0	0	0	0	740
08:15	21	433	0	454	43	0	8	51	0	199	37	236	0	0	0	0	741
08:30	13	397	0	410	55	0	12	67	0	162	48	210	0	0	0	0	687
08:45	17	397	0	414	43	0	6	49	0	185	39	224	0	0	0	0	687
Total	65	1679	0	1744	191	0	38	229	0	716	166	882	0	0	0	0	2855
09:00		352	0	367	36	0	7	43	0	136	38	174	0	0	0	0	584
09:15	13	236	0	249	44	0	17	61	0	126	38	164	0	0	0	0	474
	,																
Total	28	588	0	616	80	0	24	104	0	262	76	338	0	0	0	0	1058
15:30	16	225	0	241	66	0	21	87	0	283	86	369	0	0	0	0	697
15:45	12	204	0	216	56	0	23	79	0	286	79	365	0	0	0	0	660
Total	28	429	0	457	122	0	44	166	0	569	165	734	0	0	0	0	1357
								·				, , , , , , , , , , , , , , , , , , ,				·	
16:00	21	223	0	244	54	0	21	75	0	306	82	388	0	0	0	0	707
16:15	11	242	0	253	64	0	19	83	0	336	110	446	0	0	0	0	782
16:30	13	240	0	253	52	0	17	69	0	381	71	452	0	0	0	0	774
16:45	12	221	0	233	58	0	17	75	0	373	83	456	0	0	0	0	764
Total	57	926	0	983	228	0	74	302	0	1396	346	1742	0	0	0	0	3027
17:00	15	216	0	231	52	0	26	78	0	381	77	458	0	0	0	0	767
17:15	21	233	0	254	85	0	22	107	0	442	89	531	0	0	0	0	892
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(916) 771-8700

El Dorado County

File Name: 13-7063-014 El Dorado Hills-Saratoga South

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							Grou	ps r rinteu- U	usimicu								
]	El Dorado l	Hills Blvd	l	Sa	ratoga Wa	ay (South))]	El Dorado	Hills Blvd						
		Southbo	ound			Westbo	ound			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	12	210	0	222	48	0	22	70	0	414	65	479	0	0	0	0	771
17:45	17	191	0	208	35	0	26	61	0	401	94	495	0	0	0	0	764
Total	65	850	0	915	220	0	96	316	0	1638	325	1963	0	0	0	0	3194
18:00	21	180	0	201	41	0	26	67	0	415	58	473	0	0	0	0	741
18:15	8	187	0	195	35	0	18	53	0	350	72	422	0	0	0	0	670
Grand Total	342	7283	0	7625	1133	0	365	1498	0	6016	1417	7433	0	0	0	0	16556
Apprch %	4.5	95.5	0		75.6	0	24.4		0	80.9	19.1		0	0	0		
Total %	2.1	44	0	46.1	6.8	0	2.2	9	0	36.3	8.6	44.9	0	0	0	0	

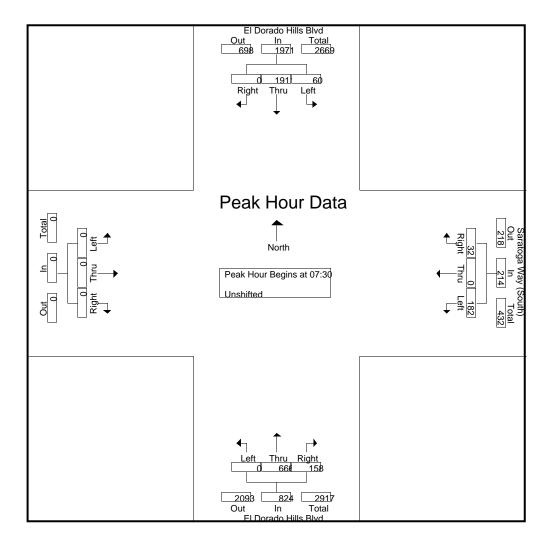
		El Dorado	Hills Blvd	l	Sa	aratoga W	ay (South))]	El Dorado	Hills Blvd	l					
		South	ound			Westb	ound			North	oound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	rom 06:30 to	09:15 - Pe	ak 1 of 1														
Peak Hour for Entire In	ntersection 1	Begins at 0'	7:30														
07:30	9	474	0	483	42	0	6	48	0	139	38	177	0	0	0	0	708
07:45	16	552	0	568	47	0	6	53	0	158	41	199	0	0	0	0	820
08:00	14	452	0	466	50	0	12	62	0	170	42	212	0	0	0	0	740
08:15	21	433	0	454	43	0	8	51	0	199	37	236	0	0	0	0	741
Total Volume	60	1911	0	1971	182	0	32	214	0	666	158	824	0	0	0	0	3009
% App. Total	3	97	0		85	0	15		0	80.8	19.2		0	0	0		
PHF	.714	.865	.000	.868	.910	.000	.667	.863	.000	.837	.940	.873	.000	.000	.000	.000	.917

(916) 771-8700

El Dorado County

File Name: 13-7063-014 El Dorado Hills-Saratoga South

Site Code : 00000000 Start Date : 1/30/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-014 El Dorado Hills-Saratoga South

Site Code : 00000000 Start Date : 1/30/2013

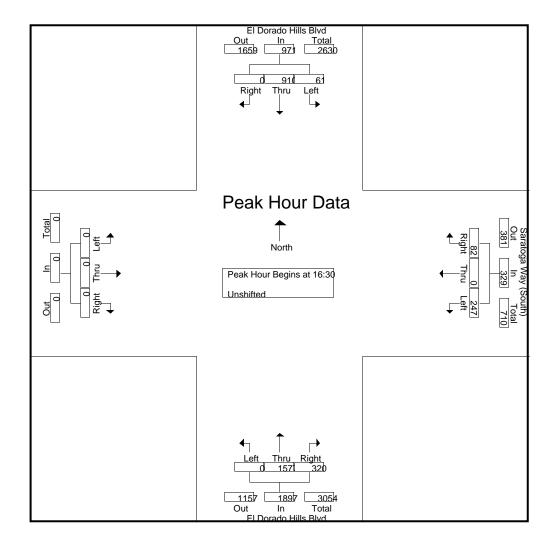
	I	El Dorado l	Hills Blvd	I	Sa	aratoga W	ay (South))]	El Dorado	Hills Blvd						
		Southbo	ound			Westb	ound			North	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pea	k 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 16	:30														
16:30	13	240	0	253	52	0	17	69	0	381	71	452	0	0	0	0	774
16:45	12	221	0	233	58	0	17	75	0	373	83	456	0	0	0	0	764
17:00	15	216	0	231	52	0	26	78	0	381	77	458	0	0	0	0	767
17:15	21	233	0	254	85	0	22	107	0	442	89	531	0	0	0	0	892
Total Volume	61	910	0	971	247	0	82	329	0	1577	320	1897	0	0	0	0	3197
% App. Total	6.3	93.7	0		75.1	0	24.9		0	83.1	16.9		0	0	0		
PHF	.726	.948	.000	.956	.726	.000	.788	.769	.000	.892	.899	.893	.000	.000	.000	.000	.896

(916) 771-8700

El Dorado County

File Name: 13-7063-014 El Dorado Hills-Saratoga South

Site Code : 00000000 Start Date : 1/30/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-015 El Dorado Hills-US 50 WB Ramps

Site Code : 00000000 Start Date : 1/30/2013

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		El Dorado Southb		d	US-5	50 Westbo	und Ram	ps		El Dorado Northb		l	US-5	50 Westbor Eastbo		os	
Start Time	e Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru		App. Total	Int. Total
06:30	0	73	166	239	68	0	28	96	64	69	0	133	0	0	0	0	468
06:45	5 0	107	276	383	111	0	36	147	80	71	0	151	0	0	0	0	681
Tota	al 0	180	442	622	179	0	64	243	144	140	0	284	0	0	0	0	1149
07:00		100	294	394	96	1	46	143	81	118	0	199	0	0	0	0	736
07:15		204	328	532	139	0	54	193	104	81	0	185	0	0	0	0	910
07:30		212	297	509	129	0	69	198	87	111	0	198	0	0	0	0	905
07:45		283	319	602	191	0	70	261	95	130	0	225	0	0	0	0	1088
Tota	ıl 0	799	1238	2037	555	1	239	795	367	440	0	807	0	0	0	0	3639
08:00		203	299	502	161	0	65	226	118	144	0	262	0	0	0	0	990
08:15		198	298	496	141	0	50	191	119	188	0	307	0	0	0	0	994
08:30	I	191	274	465	118	0	58	176	137	162	0	299	0	0	0	0	940
08:45		216	239	455	142	0	55	197	108	164	0	272	0	0	0	0	924
Tota	al 0	808	1110	1918	562	0	228	790	482	658	0	1140	0	0	0	0	3848
09:00		172	205	377	105	0	42	147	104	131	0	235	0	0	0	0	759
09:15	5 0	107	171	278	76	0	38	114	101	124	0	225	0	0	0	0	617
Tota	0	279	376	655	181	0	80	261	205	255	0	460	0	0	0	0	1376
	. 1			1	_			1				1	_	_	_	- 1	
15:30		135	156	291	67 - 2	1	50	118	234	334	0	568	0	0	0	0	977
15:45		161	114	275	70	0	48	118	204	313	0	517	0	0	0	0	910
Tota	al 0	296	270	566	137	1	98	236	438	647	0	1085	0	0	0	0	1887
16:00		138	118	256	56	0	51	107	263	346	0	609	0	0	0	0	972
16:15		168	123	291	76	0	57	133	251	403	0	654	0	0	0	0	1078
16:30		127	129	256	68	0	49	117	288	394	0	682	0	0	0	0	1055
16:45		150	118	268	93	0	68	161	275	389	0	664	0	0	0	0	1093
Tota	al 0	583	488	1071	293	0	225	518	1077	1532	0	2609	0	0	0	0	4198
17:00	0 0	156	123	279	62	0	47	109	319	435	0	754	0	0	0	0	1142
17:15	I	126	126	252	88	1	65	154	295	448	0	743	0	0	0	0	1149
17.12	1	-=-	123	202		-	00	10.1	-,,		Ŭ	,	1.	-	-	4 of 508	**

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(916) 771-8700

El Dorado County

File Name: 13-7063-015 El Dorado Hills-US 50 WB Ramps

Site Code : 00000000 Start Date : 1/30/2013

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							0204	95 I IIIICu- Ci									
]	El Dorado	Hills Blvd	l	US-5	0 Westbo	ınd Ramp	os]	El Dorado	Hills Blvd		US-5	0 Westbo	und Ramp	os	
		Southb	ound			Westbo	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Tota
17:30	0	169	140	309	60	0	55	115	248	463	0	711	0	0	0	0	1135
17:45	0	145	125	270	73	1	63	137	209	390	0	599	0	0	0	0	1006
Total	0	596	514	1110	283	2	230	515	1071	1736	0	2807	0	0	0	0	4432
18:00	0	137	125	262	53	0	42	95	195	429	0	624	0	0	0	0	981
18:15	0	138	102	240	64	0	33	97	178	382	0	560	0	0	0	0	897
Grand Total	0	3816	4665	8481	2307	4	1239	3550	4157	6219	0	10376	0	0	0	0	22407
Apprch %	0	45	55		65	0.1	34.9		40.1	59.9	0		0	0	0		
Total %	0	17	20.8	37.8	10.3	0	5.5	15.8	18.6	27.8	0	46.3	0	0	0	0	

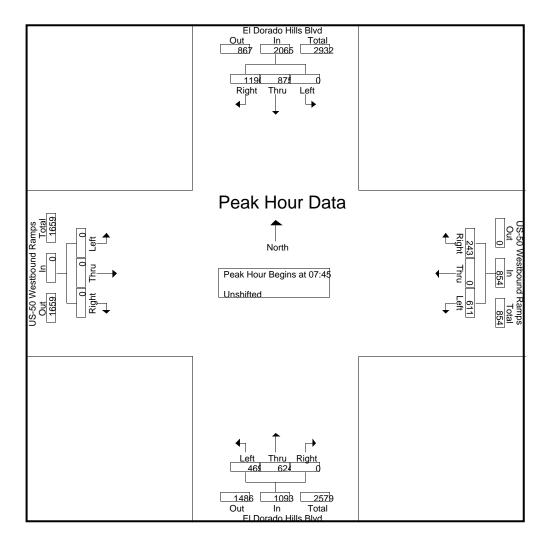
		El Dorado	Hills Blvd	l	US-5	50 Westbo	und Ramı	os]	El Dorado	Hills Blvd	i	US-	50 Westbo	und Ramj	ps	
		South	bound			Westb	ound			North	oound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	rom 06:30 to	09:15 - Pe	eak 1 of 1														
Peak Hour for Entire In	ntersection l	Begins at 0	7:45														
07:45	0	283	319	602	191	0	70	261	95	130	0	225	0	0	0	0	1088
08:00	0	203	299	502	161	0	65	226	118	144	0	262	0	0	0	0	990
08:15	0	198	298	496	141	0	50	191	119	188	0	307	0	0	0	0	994
08:30	0	191	274	465	118	0	58	176	137	162	0	299	0	0	0	0	940
Total Volume	0	875	1190	2065	611	0	243	854	469	624	0	1093	0	0	0	0	4012
% App. Total	0	42.4	57.6		71.5	0	28.5		42.9	57.1	0		0	0	0		
PHF	.000	.773	.933	.858	.800	.000	.868	.818	.856	.830	.000	.890	.000	.000	.000	.000	.922

(916) 771-8700

El Dorado County

File Name: 13-7063-015 El Dorado Hills-US 50 WB Ramps

Site Code : 00000000 Start Date : 1/30/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-015 El Dorado Hills-US 50 WB Ramps

Site Code : 00000000 Start Date : 1/30/2013

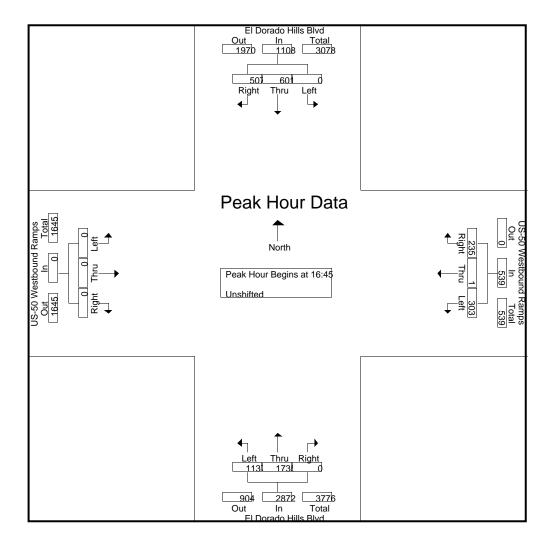
	I	El Dorado	Hills Blvd	i	US-	50 Westbo	und Ramı	os]	El Dorado	Hills Blvd		US-	50 Westbo	und Ramp	os	
		Southb	ound			Westb	ound			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pea	ak 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 16	5:45														
16:45	0	150	118	268	93	0	68	161	275	389	0	664	0	0	0	0	1093
17:00	0	156	123	279	62	0	47	109	319	435	0	754	0	0	0	0	1142
17:15	0	126	126	252	88	1	65	154	295	448	0	743	0	0	0	0	1149
17:30	0	169	140	309	60	0	55	115	248	463	0	711	0	0	0	0	1135
Total Volume	0	601	507	1108	303	1	235	539	1137	1735	0	2872	0	0	0	0	4519
% App. Total	0	54.2	45.8		56.2	0.2	43.6		39.6	60.4	0		0	0	0		
PHF	.000	.889	.905	.896	.815	.250	.864	.837	.891	.937	.000	.952	.000	.000	.000	.000	.983

(916) 771-8700

El Dorado County

File Name: 13-7063-015 El Dorado Hills-US 50 WB Ramps

Site Code : 00000000 Start Date : 1/30/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-016 El Dorado Hills-US 50 EB Ramps

Site Code : 00000000 Start Date : 1/30/2013

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]	El Dorado Southb		I	US-	50 Eastbou Westbo	ınd Ramp	os		El Dorado Northb	Hills Blvd ound		US-	50 Eastbou Eastbo		ps	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	19	116	0	135	0	0	43	43	0	96	16	112	0	0	155	155	445
06:45	26	197	0	223	0	0	35	35	0	113	20	133	0	0	211	211	602
Total	45	313	0	358	0	0	78	78	0	209	36	245	0	0	366	366	1047
07:00	21	162	0	183	0	0	61	61	0	141	28	169	0	0	200	200	613
07:15	60	281	0	341	0	0	44	44	0	133	39	172	0	0	251	251	808
07:30	66	286	0	352	0	0	58	58	0	136	39	175	0	0	248	248	833
07:45	71	390	0	461	0	0	69	69	0	153	34	187	0	0	345	345	1062
Total	218	1119	0	1337	0	0	232	232	0	563	140	703	0	0	1044	1044	3316
08:00	49	340	0	389	0	0	68	68	0	197	45	242	0	0	277	277	976
08:15	39	281	0	320	0	0	87	87	0	210	42	252	0	0	332	332	991
08:30	52	279	0	331	0	0	86	86	0	200	52	252	0	0	223	223	892
08:45	48	306	0	354	0	0	80	80	0	192	48	240	0	0	228	228	902
Total	188	1206	0	1394	0	0	321	321	0	799	187	986	0	0	1060	1060	3761
09:00	45	245	0	290	0	0	71	71	0	155	37	192	0	0	178	178	731
09:15	34	147	0	181	0	0	59	59	0	178	37	215	0	0	127	127	582
Total	79	392	0	471	0	0	130	130	0	333	74	407	0	0	305	305	1313
15.20	l 46	160	0	214	0	0	102	192	0	265	140	507	0	0	151	151	1055
15:30	46 49	168 152	0	214 201	0	0	183 193	183 193	0	365 347	142 113	507 460	0	0	151 149	151 149	1055 1003
15:45	95		0			0			0				0	0			
Total	95	320	0	415	0	Ü	376	376	0	712	255	967	Ü	0	300	300	2058
16:00	41	176	0	217	0	0	198	198	0	382	166	548	0	0	155	155	1118
16:15	40	167	0	207	0	0	242	242	0	423	146	569	0	0	189	189	1207
16:30	49	179	0	228	0	0	232	232	0	434	180	614	0	0	141	141	1215
16:45	54	195	0	249	0	0	244	244	0	450	174	624	0	0	183	183	1300
Total	184	717	0	901	0	0	916	916	0	1689	666	2355	0	0	668	668	4840
17:00	46	148	0	194	0	0	241	241	0	480	210	690	0	0	194	194	1319
17:15	57	190	0	247	0	0	276	276	0	490	174	664	0	0	190	190	1377
!								ı					1,	1_1617	311.20	10 of 508	

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(916) 771-8700

El Dorado County

File Name: 13-7063-016 El Dorado Hills-US 50 EB Ramps

Site Code : 00000000 Start Date : 1/30/2013

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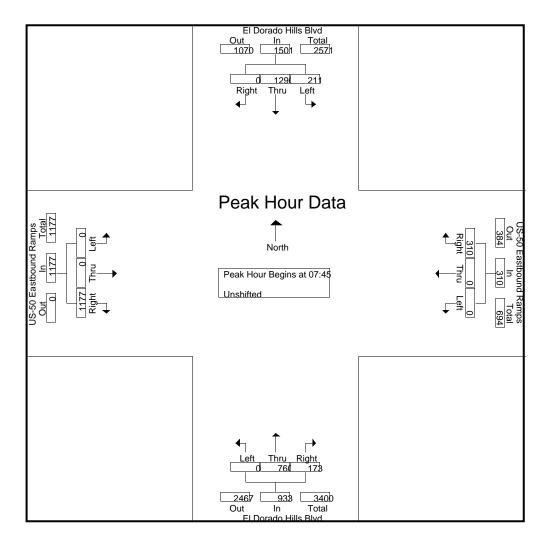
							Grou	ps i illiteu- O	isiiiteu								
]	El Dorado l	Hills Blvd	1	US-5	50 Eastbo	und Ramı	os]	El Dorado	Hills Blvd		US-	50 Eastbo	und Ram	ps	
		Southb	ound			Westbe	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	43	157	0	200	0	0	262	262	0	424	162	586	0	0	207	207	1255
17:45	40	167	0	207	0	0	263	263	0	370	143	513	0	0	181	181	1164
Total	186	662	0	848	0	0	1042	1042	0	1764	689	2453	0	0	772	772	5115
18:00	38	162	0	200	0	0	272	272	0	364	140	504	0	0	174	174	1150
18:15	37	156	0	193	0	0	255	255	0	277	106	383	0	0	156	156	987
Grand Total	1070	5047	0	6117	0	0	3622	3622	0	6710	2293	9003	0	0	4845	4845	23587
Apprch %	17.5	82.5	0		0	0	100		0	74.5	25.5		0	0	100		
Total %	4.5	21.4	0	25.9	0	0	15.4	15.4	0	28.4	9.7	38.2	0	0	20.5	20.5	

]	El Dorado Southb		l	US-	50 Eastbo		os]	El Dorado Northi			US-	50 Eastbo	-	ps	
		Southo	ouna			westb	ouna			North	ouna			Eastb	ouna		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 06:30 to	09:15 - Pea	ak 1 of 1														
Peak Hour for Entire In	ntersection B	Segins at 07	:45														
07:45	71	390	0	461	0	0	69	69	0	153	34	187	0	0	345	345	1062
08:00	49	340	0	389	0	0	68	68	0	197	45	242	0	0	277	277	976
08:15	39	281	0	320	0	0	87	87	0	210	42	252	0	0	332	332	991
08:30	52	279	0	331	0	0	86	86	0	200	52	252	0	0	223	223	892
Total Volume	211	1290	0	1501	0	0	310	310	0	760	173	933	0	0	1177	1177	3921
Mark App. Total	14.1	85.9	0		0	0	100		0	81.5	18.5		0	0	100		
PHF	.743	.827	.000	.814	.000	.000	.891	.891	.000	.905	.832	.926	.000	.000	.853	.853	.923

El Dorado County

File Name: 13-7063-016 El Dorado Hills-US 50 EB Ramps

Site Code : 00000000 Start Date : 1/30/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-016 El Dorado Hills-US 50 EB Ramps

Site Code : 00000000 Start Date : 1/30/2013

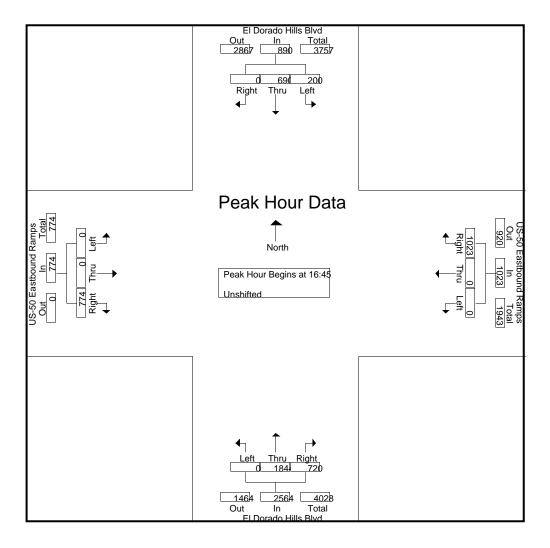
	El Dorado Hills Blvd				US-	50 Eastbo	und Ramı	os]	El Dorado	Hills Blvd	l	US-				
		Southbo	ound			Westb	ound			North	oound						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:30 to 18:15 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:45																	
16:45	54	195	0	249	0	0	244	244	0	450	174	624	0	0	183	183	1300
17:00	46	148	0	194	0	0	241	241	0	480	210	690	0	0	194	194	1319
17:15	57	190	0	247	0	0	276	276	0	490	174	664	0	0	190	190	1377
17:30	43	157	0	200	0	0	262	262	0	424	162	586	0	0	207	207	1255
Total Volume	200	690	0	890	0	0	1023	1023	0	1844	720	2564	0	0	774	774	5251
% App. Total	22.5	77.5	0		0	0	100		0	71.9	28.1		0	0	100		
PHF	.877	.885	.000	.894	.000	.000	.927	.927	.000	.941	.857	.929	.000	.000	.935	.935	.953

(916) 771-8700

El Dorado County

File Name: 13-7063-016 El Dorado Hills-US 50 EB Ramps

Site Code : 00000000 Start Date : 1/30/2013



(916) 771-8700

El Dorado County

File Name: 13-7063-017 Silva Valley-Serrano

Site Code : 00000000 Start Date : 1/30/2013

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		Silva Vall				Serrano Pkwy Silva Valley Pkwy Serrano Pkwy Westbound Northbound Eastbound												
	Southbound				Westbound				Northbound									
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	7	19	7	33	13	42	8	63	7	6	3	0	16	3	18	4	25	137
06:45	7	26	17	50	29	54	38	121	6	14	13	1	34	6	12	7	25	230
Total	14	45	24	83	42	96	46	184	13	20	16	1	50	9	30	11	50	367
07:00	9	38	26	73	35	74	125	234	10	47	11	0	68	28	23	4	55	430
07:15	46	77	31	154	32	70	126	228	13	50	11	0	74	33	11	11	55	511
07:30	46	88	39	173	72	87	127	286	30	68	23	7	128	36	30	25	91	678
07:45	56	94	47	197	108	98	59	265	44	46	56	30	176	12	31	43	86	724
Total	157	297	143	597	247	329	437	1013	97	211	101	37	446	109	95	83	287	2343
08:00	48	44	22	114	45	73	67	185	21	19	18	3	61	10	47	6	63	423
08:15	42	51	23	116	34	88	85	207	11	38	17	0	66	14	29	9	52	441
08:30	23	30	19	72	37	71	47	155	15	14	21	1	51	9	30	9	48	326
08:45	34	44	13	91	42	70	20	132	12	10	13	0	35	11	27	7	45	303
Total	147	169	77	393	158	302	219	679	59	81	69	4	213	44	133	31	208	1493
09:00	18	15	10	43	38	60	11	109	8	15	22	0	45	7	31	9	47	244
09:15	23	25	3	51	23	42	22	87	7	7	20	0	34	6	20	8	34	206
Total	41	40	13	94	61	102	33	196	15	22	42	0	79	13	51	17	81	450
				1									I				1	
15:30	42	19	18	79	26	56	27	109	9	35	42	0	86	26	54	11	91	365
15:45	38	44	14	96	27	45	43	115	17	42	30	0	89	27	50	16	93	393
Total	80	63	32	175	53	101	70	224	26	77	72	0	175	53	104	27	184	758
16:00	28	34	13	75	27	44	32	103	18	39	48	0	105	17	60	12	89	372
16:15	48	40	9	97	32	56	19	107	16	35	46	0	97	26	69	10	105	406
16:30	42	38	19	99	23	38	36	97	8	56	34	0	98	16	80	11	107	401
16:45	47	59	22	128	30	45	45	120	18	67	41	0	126	19	79	7	105	479
Total	165	171	63	399	112	183	132	427	60	197	169	0	426	78	288	40	406	1658
17:00	35	28	16	79	33	49	30	112	21	76	58	0	155	21	59	9	89	435
17:15	40	46	16	102	33	48	35	116	16	54	71	0	141	24	100	13	137	496
												4047	111044	of EOO				

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File Name: 13-7063-017 Silva Valley-Serrano

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 							•	roups i imo	cu- Onsimi	cu								
		Silva Vall	ley Pkwy		Serrano Pkwy Westbound					Silva	kwy							
		Southb	ound							N	orthboun	d						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	48	37	22	107	35	42	33	110	19	68	52	0	139	21	93	10	124	480
17:45	50	36	18	104	27	34	32	93	15	52	60	0	127	13	68	9	90	414
Total	173	147	72	392	128	173	130	431	71	250	241	0	562	79	320	41	440	1825
18:00	31	26	8	65	25	35	23	83	18	60	48	0	126	23	83	11	117	391
18:15	38	28	15	81	19	33	35	87	12	43	50	0	105	15	86	11	112	385
Grand Total	846	986	447	2279	845	1354	1125	3324	371	961	808	42	2182	423	1190	272	1885	9670
Apprch %	37.1	43.3	19.6		25.4	40.7	33.8		17	44	37	1.9		22.4	63.1	14.4		
Total %	8.7	10.2	4.6	23.6	8.7	14	11.6	34.4	3.8	9.9	8.4	0.4	22.6	4.4	12.3	2.8	19.5	

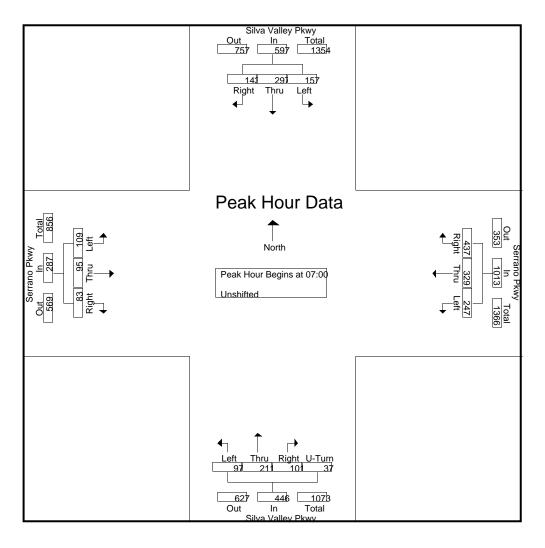
	Silva Valley Pkwy					Serrano	Pkwy	Silva Valley Pkwy Serrano Pkwy										
		Southb			Westb			N	orthboun	d								
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 09:15 - Peak 1 of 1																		
Peak Hour for Entire	Intersection	Begins at	07:00															
07:00	9	38	26	73	35	74	125	234	10	47	11	0	68	28	23	4	55	430
07:15	46	77	31	154	32	70	126	228	13	50	11	0	74	33	11	11	55	511
07:30	46	88	39	173	72	87	127	286	30	68	23	7	128	36	30	25	91	678
07:45	56	94	47	197	108	98	59	265	44	46	56	30	176	12	31	43	86	724
Total Volume	157	297	143	597	247	329	437	1013	97	211	101	37	446	109	95	83	287	2343
% App. Total	26.3	49.7	24		24.4	32.5	43.1		21.7	47.3	22.6	8.3		38	33.1	28.9		
PHF	.701	.790	.761	.758	.572	.839	.860	.885	.551	.776	.451	.308	.634	.757	.766	.483	.788	.809

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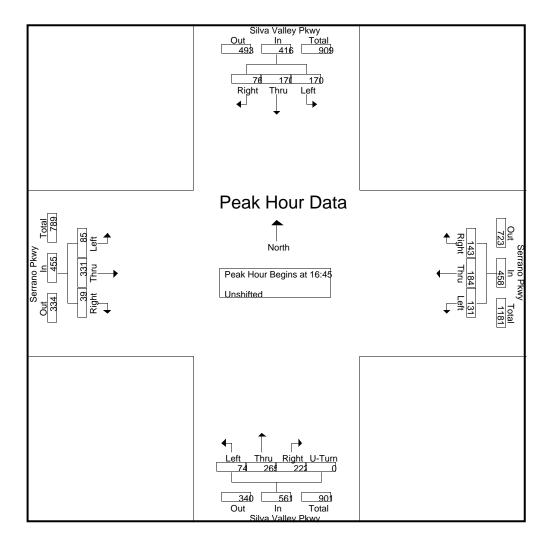
		Silva Val	ley Pkwy			Serrano	Pkwy			Silva	Valley P	kwy			Serrano	Pkwy		
		Southl	bound			Westb	ound			N	orthboun	d			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis F	From 15:30	to 18:15 -	Peak 1 of	1					_									
Peak Hour for Entire	Intersection	n Begins at	16:45															
16:45	47	59	22	128	30	45	45	120	18	67	41	0	126	19	79	7	105	479
17:00	35	28	16	79	33	49	30	112	21	76	58	0	155	21	59	9	89	435
17:15	40	46	16	102	33	48	35	116	16	54	71	0	141	24	100	13	137	496
17:30	48	37	22	107	35	42	33	110	19	68	52	0	139	21	93	10	124	480
Total Volume	170	170	76	416	131	184	143	458	74	265	222	0	561	85	331	39	455	1890
% App. Total	40.9	40.9	18.3		28.6	40.2	31.2		13.2	47.2	39.6	0		18.7	72.7	8.6		
PHF	.885	.720	.864	.813	.936	.939	.794	.954	.881	.872	.782	.000	.905	.885	.828	.750	.830	.953

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		Silva Vall Southb				Harvai Westb	rd Way	Jioups I Inte		Silva	Valley Plorthboun	•			Harvar Eastbo			
Start Time	Left	Thru	Right	App. Total	Left	Thru		App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru		App. Total	Int. Total
06:30	0	25	13	38	0	0	0	0	3	14	0	0	17	2	1	4	7	62
06:45	1	33	54	88	0	1	0	1	36	22	2	0	60	4	3	11	18	167
Total	1	58	67	126	0	1	0	1	39	36	2	0	77	6	4	15	25	229
07:00	6	31	119	156	8	4	2	14	97	37	7	16	157	12	7	32	51	378
07:15	13	33	88	134	32	27	2	61	81	51	16	37	185	44	40	81	165	545
07:30	12	65	65	142	41	16	4	61	55	56	11	66	188	7	34	63	104	495
07:45	2	41	30	73	32	19	2	53	57	68	3	17	145	6	8	45	59	330
Total	33	170	302	505	113	66	10	189	290	212	37	136	675	69	89	221	379	1748
08:00	0	38	38	76	2	2	1	5	46	43	0	6	95	12	0	41	53	229
08:15	0	32	70	102	2	1	0	3	82	55	0	15	152	44	0	76	120	377
08:30	1	36	17	54	1	0	1	2	44	22	0	0	66	12	2	25	39	161
08:45	1	51	16	68	2	2	0	4	6	20	0	1	27	6	1	37	44	143
Total	2	157	141	300	7	5	2	14	178	140	0	22	340	74	3	179	256	910
09:00	1	23	11	35	0	1	1	2	7	24	0	0	31	8	3	10	21	89
09:15	1	34	5	40	1	0	1	2	12	19	0	0	31	5	2	13	20	93
Total	2	57	16	75	1	1	2	4	19	43	0	0	62	13	5	23	41	182
15:30	7	42	9	58	8	5	5	18	31	65	3	1	100	9	6	27	42	218
15:45	3	61	13	77	8	3	2	13	36	59	4	1	100	17	2	35	54	244
Total	10	103	22	135	16	8	7	31	67	124	7	2		26	8	62	96	462
16:00	2	29	16	47	4	5	1	10	26	50	1	1	78	12	1	39	52	187
16:15	0	54	11	65	3	0	0	3	19	48	2	0	69	10	1	37	48	185
16:30	1	52	19	72	1	2	1	4	28	65	0	1	94	29	2	56	87	257
16:45	0	54	17	71	3	3	4	10	59	75	0	4	138	38	1	52	91	310
Total	3	189	63	255	11	10	6	27	132	238	3	6	379	89	5	184	278	939
17:00	2	40	10	52	1	5	0	6	40	79	1	1	121	30	2	38	70	249
17:15	3	51	19	73	3	2	1	6	27	53	6	0	86	32	5	39	76	241
				'				ı					'	11	16173	21124	0 of 509	

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								itoups i iiiiu	cu- Chaini	cu								
		Silva Vall	ey Pkwy			Harvar	d Way			Silva	Valley P	kwy			Harvar	d Way		
		Southb	ound			Westb	ound			N	orthboun	d			Eastbo	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	4	50	21	75	1	0	0	1	46	77	3	0	126	21	2	56	79	281
17:45	0	49	22	71	6	7	7	20	44	56	0	0	100	25	1	42	68	259
Total	9	190	72	271	11	14	8	33	157	265	10	1	433	108	10	175	293	1030
18:00	1	40	10	51	0	0	0	0	31	67	0	1	99	25	2	32	59	209
18:15	4	37	10	51	0	0	0	0	31	48	1	0	80	20	2	23	45	176
Grand Total	65	1001	703	1769	159	105	35	299	944	1173	60	168	2345	430	128	914	1472	5885
Apprch %	3.7	56.6	39.7		53.2	35.1	11.7		40.3	50	2.6	7.2		29.2	8.7	62.1		
Total %	1.1	17	11.9	30.1	2.7	1.8	0.6	5.1	16	19.9	1	2.9	39.8	7.3	2.2	15.5	25	

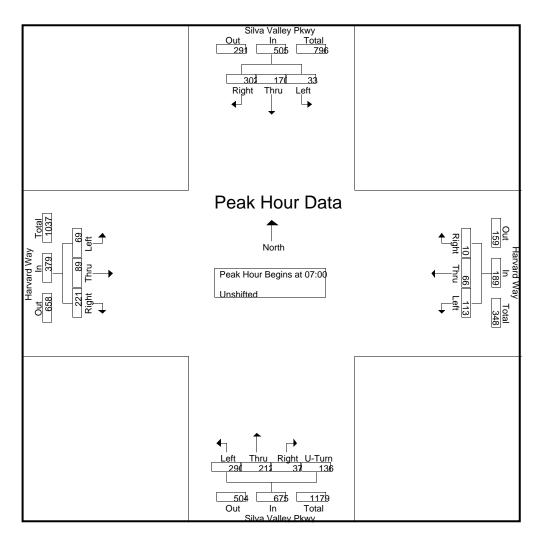
		Silva Valle Southb				Harvai Westb	•				Valley P	•			Harvar Eastbo	•		
Start Time	Left	Thru		App. Total	Left	Thru		App. Total	Left	Thru	Right		App. Total	Left	Thru		App. Total	Int. Total
Peak Hour Analysis F	From 06:30	to 09:15 - I	Peak 1 of 1		•				•	,								
Peak Hour for Entire	Intersection	Begins at	07:00															
07:00	6	31	119	156	8	4	2	14	97	37	7	16	157	12	7	32	51	378
07:15	13	33	88	134	32	27	2	61	81	51	16	37	185	44	40	81	165	545
07:30	12	65	65	142	41	16	4	61	55	56	11	66	188	7	34	63	104	495
07:45	2	41	30	73	32	19	2	53	57	68	3	17	145	6	8	45	59	330
Total Volume	33	170	302	505	113	66	10	189	290	212	37	136	675	69	89	221	379	1748
% App. Total	6.5	33.7	59.8		59.8	34.9	5.3		43	31.4	5.5	20.1		18.2	23.5	58.3		
PHF	.635	.654	.634	.809	.689	.611	.625	.775	.747	.779	.578	.515	.898	.392	.556	.682	.574	.802

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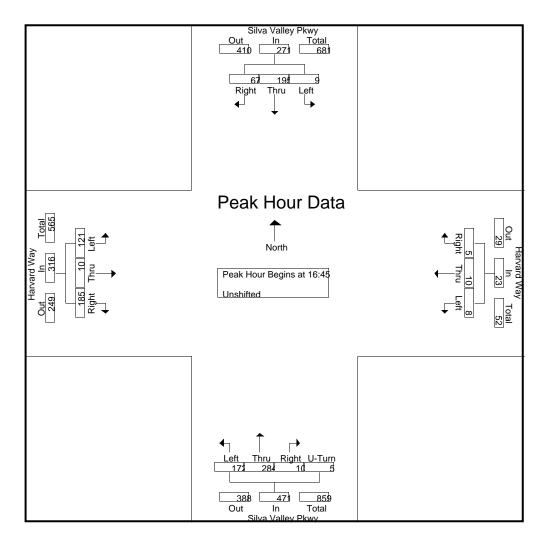
		Silva Vall	ey Pkwy			Harvar	d Way			Silva	Valley P	kwy			Harvar	d Way		
		South	ound			Westbe	ound			N	orthboun	d			Eastbo	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis F	From 15:30	to 18:15 -	Peak 1 of	1														
Peak Hour for Entire	Intersection	Begins at	16:45															
16:45	0	54	17	71	3	3	4	10	59	75	0	4	138	38	1	52	91	310
17:00	2	40	10	52	1	5	0	6	40	79	1	1	121	30	2	38	70	249
17:15	3	51	19	73	3	2	1	6	27	53	6	0	86	32	5	39	76	241
17:30	4	50	21	75	1	0	0	1	46	77	3	0	126	21	2	56	79	281
Total Volume	9	195	67	271	8	10	5	23	172	284	10	5	471	121	10	185	316	1081
% App. Total	3.3	72	24.7		34.8	43.5	21.7		36.5	60.3	2.1	1.1		38.3	3.2	58.5		
PHF	.563	.903	.798	.903	.667	.500	.313	.575	.729	.899	.417	.313	.853	.796	.500	.826	.868	.872

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		Silva Vall Southb				Apian Westbo	Way	ps 11mteu- On		Silva Vall Northb				Apian Eastbo			
Start Time	Left	Thru		App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30	1	16	0	17	8	0	10	18	3	12	1	16	1	0	11	12	63
06:45	5	53	3	61	20	0	11	31	2	21	2	25	5	0	27	32	149
Total	6	69	3	78	28	0	21	49	5	33	3	41	6	0	38	44	212
07:00	3	92	2	97	65	1	12	78	3	35	6	44	7	0	37	44	263
07:15	2	54	4	60	37	0	28	65	11	73	15	99	13	1	17	31	255
07:30	9	41	10	60	34	1	10	45	2	41	8	51	11	0	14	25	181
07:45	9	39	3	51	18	0	12	30	4	41	12	57	4	0	15	19	157
Total	23	226	19	268	154	2	62	218	20	190	41	251	35	1	83	119	856
08:00	12	39	2	53	32	0	10	42	4	34	18	56	5	1	19	25	176
08:15	6	45	3	54	33	0	18	51	3	67	19	89	10	0	21	31	225
08:30	12	29	7	48	18	1	21	40	4	27	11	42	17	0	13	30	160
08:45	12	37	4	53	15	0	9	24	3	21	5	29	6	0	12	18	124
Total	42	150	16	208	98	1	58	157	14	149	53	216	38	1	65	104	685
09:00	4	19	0	23	8	0	10	18	5	20	5	30	4	0	11	15	86
09:15	5	21	5	31	9	0	10	19	4	21	3	28	7	0	11	18	96
Total	9	40	5	54	17	0	20	37	9	41	8	58	11	0	22	33	182
15:30	8	36	4	48	9	0	12	21	8	43	18	69	6	0	10	16	154
15:45	11	45	6	62	15	0	13	28	17	50	18	85	2	0	9	11	186
Total	19	81	10	110	24	0	25	49	25	93	36	154	8	0	19	27	340
16:00	12	30	6	48	11	0	12	23	11	42	13	66	2	1	11	14	151
16:15	14	38	5	57	16	0	9	25	7	45	6	58	6	0	6	12	152
16:30	10	58	11	79	18	1	10	29	14	63	24	101	4	2	13	19	228
16:45	11	41	4	56	14	0	10	24	23	73	23	119	2	0	12	14	213
Total	47	167	26	240	59	1	41	101	55	223	66	344	14	3	42	59	744
17:00	13	44	5	62	9	0	12	21	18	55	19	92	9	2	3	14	189
17:15	13	48	9	70	15	1	11	27	15	52	23	90	2	0	11	13	200
17.13	13	40	9	70	13	1	11	21	13	34	23	9 0		-		24 of 508	200

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		Silva Valle	v Plana			Apian		ps i iliteu- Ci		Silva Vall	ov Plana			Anior	ı Way		
						-	•							-	•		
		Southbo	ound			Westbo	ound			Northb	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
17:30	13	43	6	62	13	0	5	18	19	55	19	93	4	0	12	16	189
17:45	12	40	7	59	10	2	8	20	20	44	21	85	4	0	14	18	182
Total	51	175	27	253	47	3	36	86	72	206	82	360	19	2	40	61	760
1												1				1	
18:00	13	41	8	62	5	0	6	11	23	44	19	86	5	0	7	12	171
18:15	9	37	14	60	13	1	7	21	23	32	17	72	1	1	5	7	160
Grand Total	219	986	128	1333	445	8	276	729	246	1011	325	1582	137	8	321	466	4110
Apprch %	16.4	74	9.6		61	1.1	37.9		15.5	63.9	20.5		29.4	1.7	68.9		
Total %	5.3	24	3.1	32.4	10.8	0.2	6.7	17.7	6	24.6	7.9	38.5	3.3	0.2	7.8	11.3	

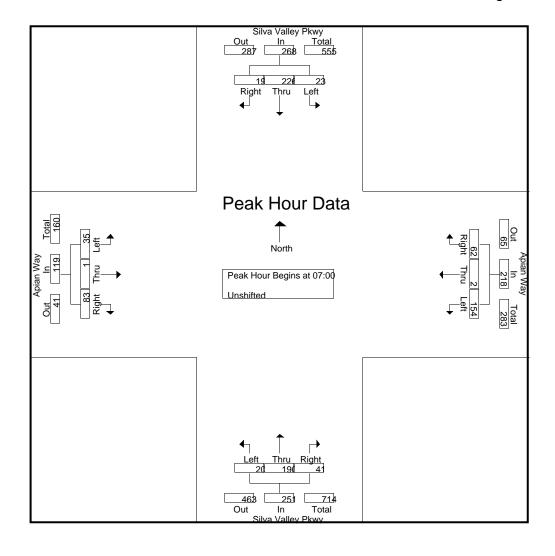
		Silva Valle				•	n Way			Silva Val				•	n Way		
		Southb	ound			Westb	ound			North	bound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 06:30 to	09:15 - Pea	ak 1 of 1														
Peak Hour for Entire In	ntersection E	Begins at 07	:00														
07:00	3	92	2	97	65	1	12	78	3	35	6	44	7	0	37	44	263
07:15	2	54	4	60	37	0	28	65	11	73	15	99	13	1	17	31	255
07:30	9	41	10	60	34	1	10	45	2	41	8	51	11	0	14	25	181
07:45	9	39	3	51	18	0	12	30	4	41	12	57	4	0	15	19	157
Total Volume	23	226	19	268	154	2	62	218	20	190	41	251	35	1	83	119	856
% App. Total	8.6	84.3	7.1		70.6	0.9	28.4		8	75.7	16.3		29.4	0.8	69.7		
PHF	.639	.614	.475	.691	.592	.500	.554	.699	.455	.651	.683	.634	.673	.250	.561	.676	.814

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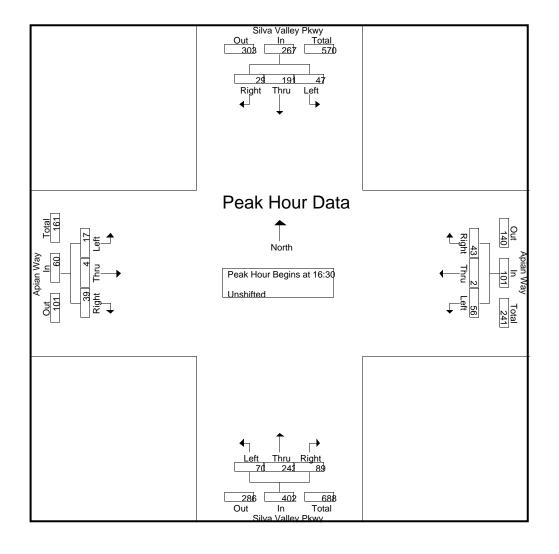
		Silva Valle	y Pkwy			Apiar	ı Way			Silva Vall	ey Pkwy			Apia	n Way		
		Southbo	ound			Westb	ound			North	ound			Eastb	ound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis Fr	om 15:30 to	18:15 - Pea	k 1 of 1														
Peak Hour for Entire In	ntersection B	egins at 16	:30														
16:30	10	58	11	79	18	1	10	29	14	63	24	101	4	2	13	19	228
16:45	11	41	4	56	14	0	10	24	23	73	23	119	2	0	12	14	213
17:00	13	44	5	62	9	0	12	21	18	55	19	92	9	2	3	14	189
17:15	13	48	9	70	15	1	11	27	15	52	23	90	2	0	11	13	200
Total Volume	47	191	29	267	56	2	43	101	70	243	89	402	17	4	39	60	830
% App. Total	17.6	71.5	10.9		55.4	2	42.6		17.4	60.4	22.1		28.3	6.7	65		
PHF	.904	.823	.659	.845	.778	.500	.896	.871	.761	.832	.927	.845	.472	.500	.750	.789	.910

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Appendix B:

Analysis Worksheets for Existing (2013) Conditions

Existing AM Peak

1: Green Valley Rd./Green Valley Road & Francisco Rd.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1/1	^	7	7	^	7	14.54	↑ 1≽		7	*	7
Volume (vph)	153	218	229	60	699	75	290	168	7	91	276	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3519		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3519		1770	1863	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.90	0.90	0.90	0.84	0.84	0.84	0.85	0.85	0.85
Adj. Flow (vph)	159	227	239	67	777	83	345	200	8	107	325	432
RTOR Reduction (vph)	0	0	161	0	0	57	0	4	0	0	0	139
Lane Group Flow (vph)	159	227	78	67	777	26	345	204	0	107	325	293
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	5.1	24.2	24.2	3.8	22.9	22.9	9.9	21.4		6.1	17.6	17.6
Effective Green, q (s)	5.1	24.2	24.2	3.8	22.9	22.9	9.9	21.4		6.1	17.6	17.6
Actuated g/C Ratio	0.07	0.33	0.33	0.05	0.31	0.31	0.13	0.29		0.08	0.24	0.24
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	237	1162	519	91	1099	491	461	1021		146	444	378
v/s Ratio Prot	c0.05	0.06		0.04	c0.22		c0.10	c0.06		0.06	0.17	
v/s Ratio Perm			0.05			0.02						c0.19
v/c Ratio	0.67	0.20	0.15	0.74	0.71	0.05	0.75	0.20		0.73	0.73	0.78
Uniform Delay, d1	33.5	17.8	17.5	34.5	22.4	17.8	30.7	19.7		33.0	25.9	26.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.3	0.1	0.1	26.3	2.1	0.0	6.5	0.1		17.2	6.1	9.6
Delay (s)	40.7	17.8	17.6	60.8	24.5	17.8	37.2	19.8		50.2	32.0	35.8
Level of Service	D	В	В	Ε	С	В	D	В		D	С	D
Approach Delay (s)		23.6			26.6			30.7			36.2	
Approach LOS		С			С			С			D	
Intersection Summary												
HCM 2000 Control Delay			29.5	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.71									
Actuated Cycle Length (s)			73.7		um of los	. ,			18.2			
Intersection Capacity Utiliza	ation		62.2%	IC	CU Level	of Service)		В			
Analysis Period (min)			15									
c Critical Lane Group												

Dixon Ranch 2: El Dorado Hills B	lvd. & (Green	Valley	Road								isting M Peak
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Ť	ą.		, j	ĵ.		7	f.			ર્ન	7
Volume (vph)	23	267	17	60	708	47	36	63	25	106	229	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (prot)	1770	1846		1770	1845		1770	1783			1834	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (perm)	1770	1846		1770	1845		1770	1783			1834	1583
Peak-hour factor, PHF	0.84	0.84	0.84	0.89	0.89	0.89	0.66	0.66	0.66	0.80	0.80	0.80
Adj. Flow (vph)	27	318	20	67	796	53	55	95	38	132	286	199
RTOR Reduction (vph)	0	2	0	0	2	0	0	11	0	0	0	133
Lane Group Flow (vph)	27	336	0	67	847	0	55	122	0	0	418	66
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	4.4	51.8		8.0	55.4		14.5	14.5			23.2	23.2
Effective Green, g (s)	4.4	51.8		8.0	55.4		14.5	14.5			23.2	23.2
Actuated g/C Ratio	0.04	0.44		0.07	0.48		0.12	0.12			0.20	0.20
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
Lane Grp Cap (vph)	66	820		121	877		220	221			365	315
v/s Ratio Prot	0.02	0.18		c0.04	c0.46		0.03	c0.07			c0.23	
v/s Ratio Perm												0.04
v/c Ratio	0.41	0.41		0.55	0.97		0.25	0.55			1.15	0.21
Uniform Delay, d1	54.8	22.0		52.5	29.6		46.1	47.9			46.6	39.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.0	0.7		4.3	22.7		1.0	4.3			92.7	0.6
Delay (s)	57.8	22.7		56.9	52.3		47.1	52.2			139.4	39.6
Level of Service	E	С		Е	D		D	D			F	D
Approach Delay (s)		25.3			52.6			50.7			107.2	_
Approach LOS		С			D			D			F	
Intersection Summary												
HCM 2000 Control Delay			63.8	Н	CM 2000	Level of S	ervice		Е			
HCM 2000 Volume to Capaci	ity ratio		0.94									
Actuated Cycle Length (s)			116.5	S	um of los	t time (s)			19.0			
Intersection Capacity Utilizati	ion		82.4%	IC	CU Level	of Service			Ε			
Analysis Period (min)			15									
c Critical Lane Group												

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Existing AM Peak

Dixon Ranch 4: Loch Way & Green Valley Rd

Lane Configurations		۶	→	\rightarrow	•	←	•	1	†	/	>	ļ	4
Volume (vph)	Movement	EBL	EBT	EBR		WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
International Content Inte	Lane Configurations	7	↑	7	7	ĵ»		7	ĵ»			4	
Total Lost time (s)	Volume (vph)	2	204	191	59	539	19	281	49	33	5	38	3
Lane Utili. Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Fit Protected	Total Lost time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Fit Protected 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.99 Sald. Flow (pror) 1770 1863 1583 1770 1853 1770 1751 1836 Fit Permitted 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.99 Sald. Flow (perm) 1770 1863 1583 1770 1853 1770 1751 1836 Fit Permitted 0.95 1.00 1.00 0.95 1.00 0.99 Sald. Flow (perm) 1770 1863 1583 1770 1853 1770 1751 1836 Peak-hour factor, PHF 0.93 0.93 0.93 0.93 0.91 0.91 0.91 0.71 0.71 0.71 0.77 0.77 0.77 0.77 Adj. Flow (vph) 2 219 205 65 592 21 396 69 46 6 49 4 0 2 0 0 0 141 0 0 1 0 0 14 0 0 2 0 0 0 141 0 0 0 1 0 0 14 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Satd. Flow (prot) 1770 1863 1583 1770 1853 1770 1751 1836 Fill Permitted 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.99 Satd. Flow (perm) 1770 1863 1583 1770 1853 1770 1751 1836 Peak-hour factor, PHF 0.93 0.93 0.93 0.91 0.91 0.91 0.71 0.71 0.71 0.77 0.77 0.77 Adj. Flow (pph) 2 219 205 65 592 21 396 69 46 6 49 4 67 4 7 4 7 4 7 4 7 4 7 5 7 7 7 7 7 7 7 7	Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.94			0.99	
Filt Permittled 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.99 Satd. Flow (perm) 1770 1863 1583 1770 1853 1770 1751 1838 1838 1790 1751 0.771 0.771 0.771 0.777	Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satt Flow (perm) 1770 1863 1583 1770 1853 1770 1751 1836	Satd. Flow (prot)	1770	1863	1583	1770	1853		1770	1751			1836	
Peak-hour factor, PHF	Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Adj. Flow (vph)	Satd. Flow (perm)	1770	1863	1583	1770	1853		1770	1751			1836	
RTOR Reduction (vph)	Peak-hour factor, PHF	0.93	0.93	0.93	0.91	0.91	0.91	0.71	0.71	0.71	0.77	0.77	0.77
Lane Group Flow (vph) 2 219 64 65 612 0 396 101 0 0 57 0	Adj. Flow (vph)	2	219	205	65	592	21	396	69	46	6	49	4
Turn Type	RTOR Reduction (vph)	0	0	141	0	1	0	0	14	0	0	2	0
Protected Phases 1 6 5 2 8 8 8 4 4 4 Permitted Phases 6 Actuated Green, G (s) 0.8 29.6 29.6 7.2 36.0 32.6 32.6 6.7 Actuated green, g (s) 0.8 29.6 29.6 7.2 36.0 32.6 32.6 32.6 6.7 Actuated green, g (s) 0.8 29.6 29.6 7.2 36.0 32.6 32.6 32.6 6.7 Actuated green, g (s) 0.8 29.6 29.6 7.2 36.0 32.6 32.6 32.6 6.7 Actuated green, g (s) 0.01 0.31 0.31 0.08 0.38 0.35 0.35 0.07 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 Lane Grp Cap (vph) 15 584 496 135 706 611 604 130 v/s Ratio Prot 0.00 0.12 c0.04 c0.33 c0.22 0.06 c0.03 v/s Ratio Perm v/c Ratio 0.13 0.38 0.13 0.48 0.87 0.65 0.17 0.44 Uniform Delay, d1 46.5 25.2 23.2 41.8 27.0 26.1 21.5 42.0 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lane Group Flow (vph)	2	219	64	65	612	0	396	101	0	0	57	0
Permitted Phases	Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	
Actuated Green, G (s) 0.8 29.6 29.6 7.2 36.0 32.6 32.6 6.7 Effective Green, g (s) 0.8 29.6 29.6 7.2 36.0 32.6 32.6 6.7 Actuated g/C Ratio 0.01 0.31 0.31 0.08 0.38 0.35 0.35 0.07 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 Lane Grp Cap (vph) 15 584 496 135 706 611 604 130 v/s Ratio Prot 0.00 0.12 c0.04 c0.33 c0.22 0.06 c0.03 v/s Ratio Perm 0.04 v/c Ratio 0.13 0.38 0.13 0.48 0.87 0.65 0.17 0.44 Uniform Delay, d1 46.5 25.2 23.2 41.8 27.0 26.1 21.5 42.0 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Protected Phases	1	6		5	2		. 8	8		4	4	
Effective Green, g (s) 0.8 29.6 29.6 7.2 36.0 32.6 32.6 6.7 Actuated g/C Ratio 0.01 0.31 0.31 0.08 0.38 0.35 0.35 0.07 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 Lane Grp Cap (vph) 15 584 496 135 706 611 604 130 v/s Ratio Prot 0.00 0.12 c0.04 c0.33 c0.22 0.06 c0.03 v/s Ratio Prot 0.13 0.38 0.13 0.48 0.87 0.65 0.17 0.44 Uniform Delay, d1 46.5 25.2 23.2 41.8 27.0 26.1 21.5 42.0 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Permitted Phases			6									
Actuated g/C Ratio 0.01 0.31 0.31 0.08 0.38 0.35 0.35 0.07 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 Lane Grp Cap (vph) 15 584 496 135 706 611 604 130 v/s Ratio Prot 0.00 0.12 c0.04 c0.33 c0.22 0.06 c0.03 v/s Ratio Perm v/c Ratio 0 1.13 0.38 0.13 0.48 0.87 0.65 0.17 0.44 Uniform Delay, d1 46.5 25.2 23.2 41.8 27.0 26.1 21.5 42.0 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Actuated Green, G (s)	0.8	29.6	29.6	7.2	36.0		32.6	32.6			6.7	
Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 2.5 Lane Grp Cap (vph) 15 584 496 135 706 611 604 130 Wis Ratio Prot 0.00 0.12 c0.04 c0.33 c0.22 0.06 c0.03 Wis Ratio Perm 0.04 0.04 c0.33 c0.22 0.06 c0.03 Wis Ratio Perm 0.04 0.04 c0.33 c0.22 0.06 c0.03 Wis Ratio Perm 0.04 0.04 c0.03 c0.22 0.06 c0.03 Wis Ratio Perm 0.04 0.01 0.0 0.05 c0.17 0.44 Uniform Delay, d1 46.5 25.2 23.2 41.8 27.0 26.1 21.5 42.0 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00<	Effective Green, g (s)	0.8	29.6	29.6	7.2	36.0		32.6	32.6			6.7	
Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 2.5 Lane Grp Cap (vph) 15 584 496 135 706 611 604 130 V/s Ratio Prot 0.00 0.12 c0.04 c0.33 c0.22 0.06 c0.03 V/s Ratio Prot 0.04 0.04 c0.33 c0.22 0.06 c0.03 V/s Ratio Prot 0.04 0.04 c0.33 c0.22 0.06 c0.03 V/s Ratio Prot 0.04 0.04 c0.04 c0.33 c0.22 0.06 c0.03 V/s Ratio Prot 0.01 0.04 c0.04 c0.02 c0.05 c0.04 c0.04 V/s Ratio Prot 0.01 0.01 0.08 c0.05 c0.04 c0.04 c0.04 c0.02 c0.04 c0.04 c0.02 c0.04 c0.04 c0.04 c0.02 c0.04 c0.04 c0.02 c0.04 c0.02 c0.04 c0.02 c0.02	Actuated g/C Ratio	0.01	0.31	0.31	0.08	0.38		0.35	0.35			0.07	
Lane Grp Cap (vph) 15 584 496 135 706 611 604 130 \[\text{w/s}\) Ratio Prot 0.00 0.12 \\ \text{co.04} \\ \text{co.033} \\ \text{co.022} \\ \text{co.06} \\ \text{co.033} \\ \text{co.022} \\ \text{co.06} \\ \text{co.033} \\ \text{co.022} \\ \text{co.06} \\ \text{co.033} \\ \text{vo.022} \\ \text{co.06} \\ \text{co.017} \\ \text{co.444} \\ \text{Uniform Delay, d1} 46.5 25.2 23.2 41.8 27.0 26.1 21.5 42.0 \\ \text{Progression Factor} 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.77 22.9 0.4 0.1 2.0 10.9 2.1 0.1 1.7 22.9 49.4 25.6 23.3 33.8 37.9 28.2 21.6 43.8 24.6 38.5 26.7 43.8 24.6 38.5 26.7 43.8 24.6 38.5 26.7 43.8 24.6 38.5 26.7 43.8 26.7 26.6 38.5 26.7 43.8 26.7	Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
\(\frac{\text{Ws Ratio Prot}{\text{Vs Ratio Prot}} \) 0.00 \ 0.12 \ 0.04 \ c0.03 \ c0.03 \ \\ \frac{\text{vs Ratio Prot}{\text{Vs Ratio Prom}}} \) 0.04 \ \\ \frac{\text{Vs Ratio Prot}{\text{Vs Ratio}}} \) 0.13 \ 0.38 \ 0.13 \ 0.48 \ 0.87 \ 0.65 \ 0.17 \ 0.44 \ \\ \text{Uniform Delay, d1} \ 46.5 \ 25.2 \ 23.2 \ 41.8 \ 27.0 \ 26.1 \ 21.5 \ 42.0 \ \\ \text{Progression Factor} \ 1.00 \ 1	Vehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
w/s Ratio Perm 0.04 w/c Ratio 0.13 0.38 0.13 0.48 0.87 0.65 0.17 0.44 Uniform Delay, d1 46.5 25.2 23.2 41.8 27.0 26.1 21.5 42.0 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Incremental Delay, d2 2.9 0.4 0.1 2.0 10.9 2.1 0.1 1.7 Delay (s) 49.4 25.6 23.3 43.8 37.9 28.2 21.6 43.8 Level of Service D C C D D C C D Approach LOS 26.6 23.3 43.8 37.9 28.2 21.6 43.8 Approach LOS 2 C D D C C D Intersection Summary B C D C D C C D HCM 2000 Control Delay 31.5 HCM 2000 Level of Service C C C HCM 2000 Volume to Capac	Lane Grp Cap (vph)	15	584	496	135	706		611	604			130	
\(\begin{array}{cccccccccccccccccccccccccccccccccccc	v/s Ratio Prot	0.00	0.12		c0.04	c0.33		c0.22	0.06			c0.03	
Uniform Delay, d1	v/s Ratio Perm			0.04									
Progression Factor 1.00 <td>v/c Ratio</td> <td>0.13</td> <td>0.38</td> <td>0.13</td> <td>0.48</td> <td>0.87</td> <td></td> <td>0.65</td> <td>0.17</td> <td></td> <td></td> <td>0.44</td> <td></td>	v/c Ratio	0.13	0.38	0.13	0.48	0.87		0.65	0.17			0.44	
Incremental Delay, d2 2.9 0.4 0.1 2.0 10.9 2.1 0.1 1.7	Uniform Delay, d1	46.5	25.2	23.2	41.8	27.0		26.1	21.5			42.0	
Delay (s) 49.4 25.6 23.3 43.8 37.9 28.2 21.6 43.8 Level of Service D C C D D C C D Approach Delay (s) 24.6 38.5 26.7 43.8 Approach LOS C D D C D Intersection Summary	Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Level of Service D C C D D C C D Approach Delay (s) 24.6 38.5 26.7 43.8 Approach LOS C D D C D Intersection Summary HCM 2000 Control Delay 31.5 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio Actuated Cycle Length (s) 94.4 Sum of lost time (s) 18.3 Intersection Capacity Utilization 67.0% ICU Level of Service C Analysis Period (min) 15	Incremental Delay, d2				2.0								
Approach Delay (s) 24.6 38.5 26.7 43.8 Approach LOS C D C D Intersection Summary HCM 2000 Control Delay 31.5 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.74 Actuated Cycle Length (s) 94.4 Sum of lost time (s) 18.3 Intersection Capacity Utilization 67.0% ICU Level of Service C Analysis Period (min) 15	Delay (s)	49.4	25.6	23.3	43.8	37.9		28.2	21.6			43.8	
Approach LOS C D C D Intersection Summary HCM 2000 Control Delay 31.5 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.74 Actuated Cycle Length (s) 94.4 Sum of lost time (s) 18.3 Intersection Capacity Utilization 67.0% ICU Level of Service C Analysis Period (min) 15	Level of Service	D	_	С	D			С					
HCM 2000 Control Delay 31.5 HCM 2000 Level of Service C	Approach Delay (s)											43.8	
HCM 2000 Control Delay 31.5 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.74 Sum of lost time (s) 18.3 Actuated Cycle Length (s) 67.0% ICU Level of Service C Analysis Period (min) 15	Approach LOS		С			D			С			D	
HCM 2000 Volume to Capacity ratio 0.74 Actuated Cycle Length (s) 94.4 Sum of lost time (s) 18.3 Intersection Capacity Utilization 67.0% ICU Level of Service C Analysis Period (min) 15	Intersection Summary												
Actuated Cycle Length (s) 94.4 Sum of lost time (s) 18.3 Intersection Capacity Utilization 67.0% ICU Level of Service C Analysis Period (min) 15	HCM 2000 Control Delay			31.5	Н	CM 2000	Level of	Service		С			
Intersection Capacity Utilization 67.0% ICU Level of Service C Analysis Period (min) 15	HCM 2000 Volume to Capa	acity ratio		0.74									
Intersection Capacity Utilization 67.0% ICU Level of Service C Analysis Period (min) 15	Actuated Cycle Length (s)	-		94.4	S	um of los	t time (s)			18.3			
Analysis Period (min) 15		ation		67.0%	10	CU Level	of Service	9		С			
	Analysis Period (min)			15									
	c Critical Lane Group												

	-	•	•	—	•	/	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	f)			4	75	7	
Volume (veh/h)	286	13	6	560	23	6	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.91	0.91	0.94	0.94	0.56	0.56	
Hourly flow rate (vph)	314	14	6	596	41	11	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			329		930	321	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			329		930	321	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		86	99	
cM capacity (veh/h)			1231		295	719	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2			
Volume Total	329	602	41	11			
Volume Left	0	6	41	0			
Volume Right	14	0	0	11			
cSH	1700	1231	295	719			
Volume to Capacity	0.19	0.01	0.14	0.01			
Queue Length 95th (ft)	0	0	12	1			
Control Delay (s)	0.0	0.1	19.2	10.1			
Lane LOS		Α	С	В			
Approach Delay (s)	0.0	0.1	17.3				
Approach LOS			С				
Intersection Summary							
Average Delay			1.0				
Intersection Capacity Utiliza	ation		44.3%	IC	U Level of	of Service	
Analysis Period (min)			15				

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Movement	EBL	EBT	WBT	WBR	SBL	SBR		i
Lane Configurations		4	<u></u>		¥			
Volume (veh/h)	0	292	566	0	0	0		
Sign Control		Free	Free		Stop			
Grade		0%	0%		0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	0	317	615	0	0	0		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type		None	None					
Median storage veh)								
Upstream signal (ft)								
pX, platoon unblocked								
vC, conflicting volume	615				933	615		
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	615				933	615		
tC, single (s)	4.1				6.4	6.2		
tC, 2 stage (s)								
tF (s)	2.2				3.5	3.3		
p0 queue free %	100				100	100		
cM capacity (veh/h)	964				296	491		
Direction, Lane #	EB 1	WB 1	SB 1					
Volume Total	317	615	0					
Volume Left	0	0	0					
Volume Right	0	0	0					
cSH	964	1700	1700					
Volume to Capacity	0.00	0.36	0.00					
Queue Length 95th (ft)	0	0	0					
Control Delay (s)	0.0	0.0	0.0					
Lane LOS			Α					
Approach Delay (s)	0.0	0.0	0.0					
Approach LOS			Α					
Intersection Summary								
Average Delay			0.0				_	
Intersection Capacity Utiliza	ation		33.1%	IC	U Level o	f Service		
Analysis Period (min)			15					

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
ane Configurations		ર્ન	1 >		¥		
/olume (veh/h)	6	264	528	2	8	21	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.93	0.93	0.86	0.86	0.91	0.91	
Hourly flow rate (vph)	6	284	614	2	9	23	
Pedestrians							
_ane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Jpstream signal (ft)							
oX, platoon unblocked							
C, conflicting volume	616				912	615	
C1, stage 1 conf vol							
/C2, stage 2 conf vol							
/Cu, unblocked vol	616				912	615	
C, single (s)	4.1				6.4	6.2	
C, 2 stage (s)							
F (s)	2.2				3.5	3.3	
oO queue free %	99				97	95	
cM capacity (veh/h)	964				302	491	
Direction, Lane #	EB 1	WB 1	SB 1				
/olume Total	290	616	32				
/olume Left	6	0	9				
Volume Right	0	2	23				
:SH	964	1700	419				
Volume to Capacity	0.01	0.36	0.08				
Queue Length 95th (ft)	1	0	6				
Control Delay (s)	0.3	0.0	14.3				
ane LOS	Α		В				
Approach Delay (s)	0.3	0.0	14.3				
Approach LOS			В				
ntersection Summary							
Average Delay			0.6				
ntersection Capacity Utilizat	tion		37.9%	IC	U Level	of Service	
Analysis Period (min)			15				

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Existing AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Volume (veh/h)	7	245	2	4	491	6	12	0	10	21	0	28
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.87	0.87	0.87	0.69	0.69	0.69	0.72	0.72	0.72
Hourly flow rate (vph)	8	269	2	5	564	7	17	0	14	29	0	39
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	571			271			902	866	270	877	864	568
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	571			271			902	866	270	877	864	568
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			93	100	98	89	100	93
cM capacity (veh/h)	1001			1292			237	288	768	261	289	522
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	279	576	32	68								
Volume Left	8	5	17	29								
Volume Right	2	7	14	39								
cSH	1001	1292	346	366								
Volume to Capacity	0.01	0.00	0.09	0.19								
Queue Length 95th (ft)	1	0	8	17								
Control Delay (s)	0.3	0.1	16.5	17.1								
Lane LOS	Α	Α	С	С								
Approach Delay (s)	0.3	0.1	16.5	17.1								
Approach LOS			С	С								
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utiliz	ation		38.0%	IC	CU Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	†			†		
Volume (veh/h)	526	0	0	750	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	572	0	0	815	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			572		1387	572
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			572		1387	572
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1001		158	520
Direction, Lane #	EB 1	WB 1				
Volume Total	572	815				
Volume Left	0	013				
Volume Right	0	0				
cSH	1700	1700				
Volume to Capacity	0.34	0.48				
Queue Length 95th (ft)	0.34	0.46				
Control Delay (s)	0.0	0.0				
Lane LOS	0.0	0.0				
Approach Delay (s)	0.0	0.0				
Approach LOS	0.0	0.0				
Approacti LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization 42.8%				IC	U Level of	of Service
Analysis Period (min)		15				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	₽		"	₽			ની	7		4	
Volume (vph)	4	370	152	159	562	5	187	3	58	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.96		1.00	1.00			1.00	0.85		0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1781		1770	1860			1775	1583		1695	
Flt Permitted	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1781		1770	1860			1775	1583		1695	
Peak-hour factor, PHF	0.61	0.61	0.61	0.76	0.76	0.76	0.64	0.64	0.64	0.50	0.50	0.50
Adj. Flow (vph)	7	607	249	209	739	7	292	5	91	2	0	2
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	74	0	4	0
Lane Group Flow (vph)	7	845	0	209	746	0	0	297	17	0	0	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	0.7	56.3		14.0	69.6			20.7	20.7		1.0	
Effective Green, g (s)	0.7	56.3		14.0	69.6			20.7	20.7		1.0	
Actuated g/C Ratio	0.01	0.52		0.13	0.64			0.19	0.19		0.01	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	11	928		229	1198			340	303		15	
v/s Ratio Prot	0.00	c0.47		c0.12	0.40			c0.17			c0.00	
v/s Ratio Perm									0.01			
v/c Ratio	0.64	0.91		0.91	0.62			0.87	0.06		0.00	
Uniform Delay, d1	53.5	23.6		46.4	11.4			42.4	35.7		53.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	81.7	12.9		36.5	1.0			21.1	0.1		0.1	
Delay (s)	135.3	36.4		82.9	12.4			63.5	35.8		53.1	
Level of Service	F	D		F	В			E	D		D	
Approach Delay (s)		37.2			27.8			57.0			53.1	
Approach LOS		D			С			Е			D	
Intersection Summary												
HCM 2000 Control Delay			36.7	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	acity ratio		0.89									
Actuated Cycle Length (s)			108.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliz	ation		64.7%	IC	U Level	of Service	:		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	î,		J.	f)		7	î,			4	
Volume (vph)	10	342	73	21	487	6	196	2	46	13	4	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.86			0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1814		1770	1859		1770	1597			1666	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1814		1770	1859		1770	1597			1666	
Peak-hour factor, PHF	0.68	0.68	0.68	0.77	0.77	0.77	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	15	503	107	27	632	8	248	3	58	16	5	51
RTOR Reduction (vph)	0	8	0	0	1	0	0	46	0	0	48	0
Lane Group Flow (vph)	15	602	0	27	639	0	248	15	0	0	24	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Actuated Green, G (s)	0.6	28.4		1.3	29.1		13.2	13.2			3.9	
Effective Green, g (s)	0.6	28.4		1.3	29.1		13.2	13.2			3.9	
Actuated g/C Ratio	0.01	0.45		0.02	0.46		0.21	0.21			0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	16	820		36	861		372	335			103	
v/s Ratio Prot	0.01	0.33		c0.02	c0.34		c0.14	0.01			c0.01	
v/s Ratio Perm												
v/c Ratio	0.94	0.73		0.75	0.74		0.67	0.05			0.23	
Uniform Delay, d1	31.1	14.1		30.6	13.8		22.8	19.8			28.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	191.7	3.4		59.8	3.5		4.5	0.1			1.2	
Delay (s)	222.8	17.5		90.3	17.3		27.3	19.8			29.2	
Level of Service	F	В		F	В		С	В			С	
Approach Delay (s)		22.5			20.2			25.8			29.2	
Approach LOS		С			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			22.5	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Cap	acity ratio		0.69									
Actuated Cycle Length (s)	,		62.8	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliz	ation		50.2%	IC	U Level	of Service			Α			
Analysis Period (min)			15									
c Critical Lane Group												
•												

c Critical Lane Group

Existing AM Peak Dixon Ranch

12: El Dorado Hills Blvd. & Francisco Dr.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	, N	f)		J.	f)		Ŋ	î,		J.	î,	
Volume (vph)	22	126	254	112	242	4	255	15	71	9	63	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.90		1.00	1.00		1.00	0.88		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1676		1770	1858		1770	1632		1770	1788	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1676		1770	1858		1770	1632		1770	1788	
Peak-hour factor, PHF	0.70	0.70	0.70	0.84	0.84	0.84	0.88	0.88	0.88	0.66	0.66	0.66
Adj. Flow (vph)	31	180	363	133	288	5	290	17	81	14	95	35
RTOR Reduction (vph)	0	86	0	0	1	0	0	54	0	0	18	0
Lane Group Flow (vph)	31	457	0	133	292	0	290	44	0	14	112	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.8	24.7		7.3	30.2		14.4	23.9		0.7	10.2	
Effective Green, g (s)	1.8	24.7		7.3	30.2		14.4	23.9		0.7	10.2	
Actuated g/C Ratio	0.02	0.34		0.10	0.42		0.20	0.33		0.01	0.14	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	43	570		177	772		351	537		17	251	
v/s Ratio Prot	0.02	c0.27		c0.08	0.16		c0.16	0.03		0.01	c0.06	
v/s Ratio Perm												
v/c Ratio	0.72	0.80		0.75	0.38		0.83	0.08		0.82	0.45	
Uniform Delay, d1	35.2	21.7		31.8	14.7		27.9	16.8		35.9	28.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	45.2	8.0		16.4	0.3		14.6	0.1		132.1	1.3	
Delay (s)	80.3	29.7		48.1	15.0		42.5	16.8		168.0	29.9	
Level of Service	F	С		D	В		D	В		F	С	
Approach Delay (s)		32.5			25.3			36.0			43.3	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			32.4	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capac	ity ratio		0.74									
Actuated Cycle Length (s)			72.6		um of los	. ,			16.0			
Intersection Capacity Utilizati	ion		59.2%	IC	CU Level	of Service	9		В			
Analysis Period (min)			15									

WBT Movement EBR WBL NBT Lane Configurations Sign Control Volume (vph) 4 4 ħ Þ Stop Stop Stop Stop 2 49 453 45 63 42 361 115 37 125 248 Peak Hour Factor 0.86 0.86 0.86 0.52 0.52 0.52 0.92 0.92 0.92 0.75 0.75 0.75 2 Hourly flow rate (vph) 57 527 87 121 81 392 125 40 167 331 Direction, Lane # EB 1 WB 1 NB 1 NB 2 SB 1 SB 2 Volume Total (vph) 586 288 392 165 167 335 Volume Left (vph)
Volume Right (vph) 2 87 392 0 167 0 527 0 81 0 40 4 0.03 Hadj (s) -0.50 -0.07 0.53 -0.14 0.53 Departure Headway (s) 8.1 9.4 9.6 9.1 9.1 8.8 Degree Utilization, x 0.45 0.85 1.31 0.73 1.03 0.40 Capacity (veh/h) 452 387 392 406 360 390 Control Delay (s) 180.0 33.1 84.5 18.9 44.8 Approach Delay (s) 180.0 33.1 64.3 36.2 Approach LOS Intersection Summary Delay 87.5 Level of Service Intersection Capacity Utilization Analysis Period (min) 85.6%

ICU Level of Service

15

Existing AM Peak

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Ame Configurations 1		•	•	†	~	\	↓		
Dalume (vph) 399 147 309 328 265 810	Movement	WBL	WBR	NBT	NBR	SBL	SBT		
eal Flow (vphpl) 1900 1900 1900 1900 1900 1900 1900 190	Lane Configurations	, T	7	↑ ↑		ሻሻ	^		
Data Lost time (s)	Volume (vph)	399	147	309	328	265	810		
Included Control Con	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
tt	Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		
And Protected 0.95 1.00 1.00 0.95 1.00 atd. Flow (prot) 1770 1583 3266 3433 3539 atd. Flow (perm) 1584 204 372 395 291 890 atd. Flow (perm) 1584 277 471 0 291 890 atd. Flow (perm) 1584 277 471 0 291 890 atd. Flow (perm) 1584 277 471 0 291 890 atd. Flow (perm) 1584 277 471 0 291 890 atd. Flow (perm) 1585 18.5 12.3 6.1 22.4 atd. Flow (perm) 1585 18.5 12.3 atd. Flow (perm) 1585 18.5 12.3 atd. Flow (perm) 1585 18.5 12.3 atd. Flow (perm) 1585 18.5 18.5 12.3 atd. Flow (perm) 1585 18.5 18.5 12.3 atd. Flow (perm) 1585 18.5 1	Lane Util. Factor	1.00	1.00	0.95		0.97	0.95		
atd. Flow (prot) 1770 1583 3266 3433 3539 It Permitted 0.95 1.00 1.00 0.95 1.00 atd. Flow (perm) 1770 1583 3266 3433 3539 atd. Flow (perm) 1.091 1.091 1.091 atd. Flow (perm) 1.091 atd. Flow (Frt	1.00	0.85	0.92		1.00	1.00		
t Permitted 0.95 1.00 1.00 0.95 1.00 atd. Flow (perm) 1770 1583 3266 3433 3539 aak-hour factor, PHF 0.72 0.72 0.72 0.83 0.83 0.91 0.91 dij. Flow (vph) 554 204 372 395 291 890 TOR Reduction (vph) 0 127 296 0 0 0 0 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 554 77 471 0 291 890 and Group Flow (vph) 60 18.5 18.5 12.3 6.1 22.4 and Group Flow (vph) 60 18.5 18.5 18.5 12.3 6.1 22.4 and Group Flow (Flt Protected	0.95	1.00	1.00		0.95	1.00		
atd. Flow (perm) 1770 1583 3266 3433 3539 aak-hour factor, PHF 0.72 0.72 0.83 0.83 0.91 0.91 ij. Flow (yph) 554 204 372 395 291 890 TOR Reduction (vph) 0 127 296 0 0 0 ane Group Flow (vph) 554 77 471 0 291 890 Torn Type NA Perm NA Prot NA Torn Type NA Perm NA Prot NA Torn Type NA Perm NA Prot NA Tentitled Phases 8 2 1 6 Tentitled Phases 8 Tentitled Phases 9 Tentitled Phas	Satd. Flow (prot)	1770	1583	3266		3433	3539		
Pask-hour factor, PHF	Flt Permitted	0.95	1.00	1.00		0.95	1.00		
### ### #### #### ####################	Satd. Flow (perm)	1770	1583	3266		3433	3539		
TOR Reduction (vph)	Peak-hour factor, PHF	0.72	0.72	0.83	0.83	0.91	0.91		
TOR Reduction (vph) 0 127 296 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Adj. Flow (vph)	554	204	372	395	291	890		
rm Type	RTOR Reduction (vph)	0	127	296	0	0	0		
Street	Lane Group Flow (vph)	554	77	471	0	291	890		
Ermitted Phases Estuated Green, G (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.5 18.5 12.3 6.1 22.4 Fedetive Green, g (s) 18.6 12.3 6.1 22.4 Fedetive Green, g (s) 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	Turn Type	NA	Perm	NA		Prot	NA		
tituated Green, G (s) 18.5 18.5 12.3 6.1 22.4 fective Green, g (s) 18.5 18.5 12.3 6.1 22.4 fective Green, g (s) 18.5 18.5 12.3 6.1 22.4 tituated g/C Ratio 0.38 0.38 0.25 0.12 0.46 earance Time (s) 4.0 4.0 4.0 4.0 4.0 ehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 ene Grp Cap (vph) 669 598 821 428 1621 s Ratio Port c0.31 0.14 0.08 c0.25 s Ratio Perm 0.05 c Ratio 0.83 0.13 0.57 0.68 0.55 niform Delay, d1 13.8 9.9 16.0 20.5 9.6 rogression Factor 1.00 1.00 1.00 1.00 1.00 coremental Delay, d2 8.3 0.1 1.0 4.3 0.4 elay (s) 22.1 10.0 17.0 24.7 10.0 evel of Service C B B B C A oproach Delay (s) 18.8 17.0 13.6 oproach LOS B B B B Etersection Summary CM 2000 Control Delay 16.0 HCM 2000 Level of Service B CM 2000 Volume to Capacity ratio 19.1 15.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12	Protected Phases	8		2		1	6		
fective Green, g (s) 18.5 18.5 12.3 6.1 22.4 tuated g/C Ratio 0.38 0.38 0.25 0.12 0.46 earance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 ebicice Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Permitted Phases		8						
Structured g/C Ratio 0.38 0.38 0.25 0.12 0.46	Actuated Green, G (s)	18.5	18.5	12.3		6.1	22.4		
Rearance Time (s)	Effective Green, g (s)	18.5	18.5	12.3		6.1	22.4		
ehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 and GPC Cap (vph) 669 598 821 428 1621 s s Ratio Prot c0.31 0.14 0.08 c0.25 s Ratio Perm 0.05 c Ratio 0.83 0.13 0.57 0.68 0.55 inform Delay, d1 13.8 9.9 16.0 20.5 9.6 regression Factor 1.00 1.00 1.00 1.00 1.00 1.00 corremental Delay, d2 8.3 0.1 1.0 4.3 0.4 elay (s) 22.1 10.0 17.0 24.7 10.0 evel of Service C B B C A propoach Delay (s) 18.8 17.0 13.6 proach Delay (s) 18.8 17.0 13.6 proach Delay (s) B B B B B C A C A corresponding to the	Actuated g/C Ratio	0.38	0.38	0.25		0.12	0.46		
ane Grp Cap (vph) 669 598 821 428 1621 s Ratio Prot c0.31 0.14 0.08 c0.25 s Ratio Prot c0.31 0.14 0.08 c0.25 s Ratio Prot c1.00 0.05 c catio Prot c1.00 1.00 conform Delay, d1 13.8 9.9 16.0 20.5 9.6 sogression Factor 1.00 1.00 1.00 1.00 1.00 cremental Delay, d2 8.3 0.1 1.0 4.3 0.4 selay (s) 22.1 10.0 17.0 24.7 10.0 selay (s) 22.1 10.0 17.0 24.7 10.0 selay (s) 18.8 17.0 13.6 soproach Delay (s) 18.8 17.0 13.6 soproach LOS B B B B B B C A C A selection Summary CM 2000 Control Delay 16.0 HCM 2000 Level of Service B CM 2000 Volume to Capacity ratio c1.25 ctuated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 tersection Capacity Utilization 58.7% ICU Level of Service B analysis Period (min) 15	Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		
s Ratio Prot c0.31 0.14 0.08 c0.25 s Ratio Perm 0.05 c Ratio Perm 0.05 c Ratio Perm 0.05 c Ratio 0.83 0.13 0.57 0.68 0.55 c Ratio 0.83 0.1 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		
S Ratio Perm 0.05 C Ratio 0.83 0.13 0.57 0.68 0.55 Inform Delay, d1 13.8 9.9 16.0 20.5 9.6 Progression Factor 1.00 1.00 1.00 1.00 1.00 Cremental Delay, d2 8.3 0.1 1.0 4.3 0.4 Progression Service C B B C A Poproach Delay (s) 18.8 17.0 13.6 Poproach LOS B B B B Tersection Summary CM 2000 Control Delay 16.0 HCM 2000 Level of Service B CM 2000 Volume to Capacity ratio 0.75 Cutated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 Etersection Capacity Utilization 58.7% ICU Level of Service B allysis Period (min) 15	Lane Grp Cap (vph)	669	598	821		428	1621		
E Ratio 0.83 0.13 0.57 0.68 0.55 inform Delay, d1 13.8 9.9 16.0 20.5 9.6 orgression Factor 1.00 1.00 1.00 1.00 1.00 cremental Delay, d2 8.3 0.1 1.0 4.3 0.4 elay (s) 22.1 10.0 17.0 24.7 10.0 evel of Service C B B C A oproach Delay (s) 18.8 17.0 13.6 oproach Delay (s) B B B B elessection Summary CM 2000 Control Delay 16.0 HCM 2000 Level of Service B CM 2000 Volume to Capacity ratio 0.75 ctuated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 tersection Capacity Utilization 58.7% ICU Level of Service B latysis Period (min) 15	v/s Ratio Prot	c0.31		0.14		0.08	c0.25		
niform Delay, d1 13.8 9.9 16.0 20.5 9.6 rogression Factor 1.00 1.00 1.00 1.00 1.00 1.00 cremental Delay, d2 8.3 0.1 1.0 4.3 0.4 elay (s) 22.1 10.0 17.0 24.7 10.0 evel of Service C B B B C A oproach Delay (s) 18.8 17.0 13.6 oproach LOS B B B B tersection Summary CM 2000 Control Delay 16.0 HCM 2000 Level of Service B CM 2000 Volume to Capacity ratio ctuated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 tersection Capacity Utilization 58.7% ICU Level of Service B allysis Period (min) 15	v/s Ratio Perm		0.05						
rogression Factor 1.00 1.00 1.00 1.00 1.00 1.00 cremental Delay, d2 8.3 0.1 1.0 4.3 0.4 elay (s) 22.1 10.0 17.0 24.7 10.0 elay (s) 18.8 17.0 13.6 elay (s) 13.6 el	v/c Ratio	0.83	0.13	0.57		0.68	0.55		
cremental Delay, d2 8.3 0.1 1.0 4.3 0.4 elay (s) 22.1 10.0 17.0 24.7 10.0 evel of Service C B B C A oproach Delay (s) 18.8 17.0 13.6 B oproach LOS B B B B tersection Summary CM 2000 Control Delay 16.0 HCM 2000 Level of Service B CM 2000 Volume to Capacity ratio 0.75 ctuated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 tersection Capacity Utilization 58.7% ICU Level of Service B halysis Period (min) 15	Uniform Delay, d1	13.8	9.9	16.0		20.5	9.6		
elay (s) 22.1 10.0 17.0 24.7 10.0 evel of Service C B B B C A oproach Delay (s) 18.8 17.0 13.6 eproach LOS B B B B B B B B B B B B B B B B B B B	Progression Factor		1.00	1.00		1.00	1.00		
evel of Service C B B C A oproach Delay (s) 18.8 17.0 13.6 oproach LOS B B B B tersection Summary CM 2000 Control Delay 16.0 HCM 2000 Level of Service B CM 2000 Volume to Capacity ratio 0.75 ctuated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 tersection Capacity Utilization 58.7% ICU Level of Service B allysis Period (min) 15	Incremental Delay, d2	8.3	0.1	1.0		4.3	0.4		
proach Delay (s) 18.8 17.0 13.6 proach LOS B B B B B B B B B B B B B B B B B B B	Delay (s)	22.1	10.0	17.0		24.7	10.0		
B B B B B B B B B B B	Level of Service		В			С			
tersection Summary CM 2000 Control Delay 16.0 HCM 2000 Level of Service B CM 2000 Volume to Capacity ratio 0.75 ctuated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 tersection Capacity Utilization 58.7% ICU Level of Service B nalysis Period (min) 15	Approach Delay (s)								
CM 2000 Control Delay 16.0 HCM 2000 Level of Service B CM 2000 Volume to Capacity ratio 0.75 ctuated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 tersection Capacity Utilization 58.7% ICU Level of Service B nalysis Period (min) 15	Approach LOS	В		В			В		
CM 2000 Volume to Capacity ratio 0.75 ctuated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 tersection Capacity Utilization 58.7% ICU Level of Service B nalysis Period (min) 15	Intersection Summary								
ctuated Cycle Length (s) 48.9 Sum of lost time (s) 12.0 tersection Capacity Utilization 58.7% ICU Level of Service B nalysis Period (min) 15	HCM 2000 Control Delay				Н	ICM 2000	Level of Service	В	
tersection Capacity Utilization 58.7% ICU Level of Service B nalysis Period (min) 15		city ratio							
nalysis Period (min) 15	Actuated Cycle Length (s)						. ,		
		ation			10	CU Level	of Service	В	
	Analysis Period (min)			15					
Critical Lane Group	c Critical Lane Group								

	۶	→	•	•	←	•	4	†	/	\	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	, A	î,		ř	4		, J	† †	7	J.	∱ }	
Volume (vph)	23	15	84	571	14	86	32	391	173	66	1399	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.87		1.00	0.96		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1626		1681	1643		1770	3539	1583	1770	3529	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1626		1681	1643		1770	3539	1583	1770	3529	
Peak-hour factor, PHF	0.73	0.73	0.73	0.79	0.79	0.79	0.82	0.82	0.82	0.88	0.88	0.88
Adj. Flow (vph)	32	21	115	723	18	109	39	477	211	75	1590	31
RTOR Reduction (vph)	0	42	0	0	12	0	0	0	0	0	1	0
Lane Group Flow (vph)	32	94	0	434	404	0	39	477	211	75	1620	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	6.0	6.0		29.5	29.5		3.2	53.7	110.0	6.6	57.1	
Effective Green, g (s)	6.0	6.0		29.5	29.5		3.2	53.7	110.0	6.6	57.1	
Actuated g/C Ratio	0.05	0.05		0.27	0.27		0.03	0.49	1.00	0.06	0.52	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	96	88		450	440		51	1727	1583	106	1831	
v/s Ratio Prot	0.02	c0.06		c0.26	0.25		c0.02	0.13		0.04	c0.46	
v/s Ratio Perm									0.13			
v/c Ratio	0.33	1.07		0.96	0.92		0.76	0.28	0.13	0.71	0.88	
Uniform Delay, d1	50.1	52.0		39.7	39.1		53.0	16.7	0.0	50.8	23.5	
Progression Factor	1.00	1.00		1.00	1.00		0.72	0.58	1.00	1.00	1.00	
Incremental Delay, d2	0.7	117.1		32.9	23.6		44.7	0.4	0.2	16.1	6.7	
Delay (s)	50.8	169.1		72.7	62.7		82.8	10.1	0.2	66.9	30.2	
Level of Service	D	F		Е	Е		F	В	Α	Е	С	
Approach Delay (s)		146.5			67.8			11.1			31.8	
Approach LOS		F			E			В			С	
Intersection Summary												
HCM 2000 Control Delay			41.9	H	CM 2000	Level of S	Service		D			
HCM 2000 Volume to Capa	city ratio		0.92									
Actuated Cycle Length (s)			110.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utiliza	tion		79.3%	IC	U Level	of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

ane Configurations		•	→	\rightarrow	•	—	•	•	†	/	-	ļ	4
Volume (vph)	Movement	EBL	EBT	EBR		WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
deal Flow (vphpl) 1900 1900 1900 1900 1900 1900 1900 190	Lane Configurations		4	7	ሻ	₽		ሻ	ተተኈ		Ť	∱ 1>	
Stall Lost lime (s) 4.0	Volume (vph)	20	6	98	13	5	51	66	582	32	125	1866	8
ane Util. Factor	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
The control of the co	Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Protected	Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.91		1.00	0.95	
Sald. Flow (prot) 1681 1720 1583 1770 1607 1770 5045 1770 3537 lt Permitted 0.95 0.97 1.00 0.95	Frt	1.00	1.00	0.85	1.00	0.86		1.00	0.99		1.00	1.00	
Tell Permitted 0.95 0.97 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.96 1.00 0.97 0.97 0.97 0.97 0.78 0.78 0.78 0.90 0.90 0.90 0.90 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.8	Flt Protected	0.95	0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Said Flow (perm) 1681 1720 1583 1770 1607 1770 5045 1770 3537	Satd. Flow (prot)	1681	1720	1583	1770	1607		1770	5045		1770	3537	
Peak-hour factor, PHF	Flt Permitted	0.95	0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Idj. Flow (vph) 21 6 101 17 6 65 73 647 36 149 2221 10 2TOR Reduction (vph) 0 0 96 0 62 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Satd. Flow (perm)	1681	1720	1583	1770	1607		1770	5045		1770	3537	
Name Group Flow (vph)	Peak-hour factor, PHF	0.97	0.97	0.97	0.78	0.78	0.78	0.90	0.90	0.90	0.84	0.84	0.84
Agriculty Agri	Adj. Flow (vph)	21	6	101	17	6	65	73	647	36	149	2221	10
Furn Type	RTOR Reduction (vph)	0	0	96	0	62	0	0	3	0	0	0	0
Protected Phases 7 7 7 7 8 8 8 1 1 6 5 2 Permitted Phases Control of Phases Cont	Lane Group Flow (vph)	13	14	5	17	9	0	73	680	0	149	2231	0
Permitted Phases Actuated Green, G (s) 5.1 5.1 5.1 4.5 4.5 4.0 66.7 16.0 78.7 Effective Green, g (s) 5.1 5.1 5.1 4.5 4.5 4.0 68.4 16.0 80.4 Actuated g/C Ratio 0.05 0.05 0.05 0.05 0.04 0.04 0.04 0.62 0.15 0.73 Effective Extension (s) 4.0 4.0 4.0 4.0 4.0 5.7 4.0 5.7 Effective Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 4.2 0.2 4.2 ene Grp Cap (vph) 77 79 73 72 65 64 3137 257 2585 /8 Ratio Prot 0.01 c0.01 0.00 c0.01 0.01 c0.04 0.13 0.08 c0.63 /8 Ratio Perm /C Ratio 0.17 0.18 0.06 0.24 0.13 1.14 0.22 0.58 0.86 Effection Delay, d1 50.4 50.4 50.2 51.1 50.9 53.0 9.1 43.9 10.8 Effection Delay, d2 0.4 0.4 0.1 0.6 0.3 154.8 0.2 0.9 1.8 Delay (s) 50.8 50.8 50.8 50.3 51.7 51.2 201.2 8.2 42.2 4.9 Evel of Service D D D D D F A D A D A D A D A D A D A D	Turn Type	Split	NA	Prot	Split	NA		Prot	NA		Prot	NA	
Section Sect	Protected Phases	. 7	7	7	. 8	8		1	6		5	2	
Effective Green, g (s) 5.1 5.1 5.1 5.1 4.5 4.5 4.0 68.4 16.0 80.4 Actuated g/C Ratio 0.05 0.05 0.05 0.04 0.04 0.04 0.62 0.15 0.73 Actuated g/C Ratio 0.05 0.05 0.05 0.04 0.04 0.04 0.62 0.15 0.73 Actuated g/C Ratio 0.05 0.05 0.05 0.04 0.04 0.04 0.62 0.15 0.73 Actuated g/C Ratio 0.05 0.05 0.05 0.05 0.04 0.04 0.04 0.62 0.15 0.73 Actuated g/C Ratio 0.02 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.	Permitted Phases												
Actuated g/C Ratio 0.05 0.05 0.05 0.04 0.04 0.04 0.04 0.62 0.15 0.73 Actuated g/C Ratio 0.05 0.05 0.05 0.04 0.04 0.04 0.04 0.62 0.15 0.73 Actuated g/C Ratio 0.05 0.05 0.05 0.04 0.04 0.04 0.04 0.62 0.15 0.73 Actuated g/C Ratio 0.05 0.05 0.05 0.04 0.04 0.04 0.05 7 4.0 5.7 Actuated g/C Ratio 0.02 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 4.2 Actuated g/C Ratio 0.02 0.2 0.2 0.2 0.2 0.2 0.2 0.2 4.2 Actuated g/C Ratio 0.07 7 79 73 72 65 64 3137 257 2585 Actuated Prot 0.01 0.00 0.01 0.00 0.01 0.01 0.01 0.0	Actuated Green, G (s)	5.1	5.1	5.1	4.5	4.5		4.0	66.7		16.0	78.7	
Clearance Time (s)	Effective Green, g (s)	5.1	5.1	5.1	4.5	4.5		4.0	68.4		16.0	80.4	
Vehicle Extension (s)	Actuated g/C Ratio	0.05	0.05	0.05	0.04	0.04		0.04	0.62		0.15	0.73	
ane Grp Cap (vph) 77 79 73 72 65 64 3137 257 2585 //s Ratio Prot 0.01 c0.01 0.00 c0.01 0.01 c0.04 0.13 0.08 c0.63 //s Ratio Perm //c Ratio Delay	Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.7		4.0	5.7	
As Ratio Prot 0.01 c0.01 0.00 c0.01 0.01 c0.01 c0.04 0.13 0.08 c0.63 As Ratio Perm As Ratio Pe	Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	4.2		0.2	4.2	
/s Ratio Perm /c Ratio 0 0.17 0.18 0.06 0.24 0.13 1.14 0.22 0.58 0.86 Inform Delay, d1 50.4 50.4 50.2 51.1 50.9 53.0 9.1 43.9 10.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 0.88 0.89 0.94 0.28 Incremental Delay, d2 0.4 0.4 0.1 0.6 0.3 154.8 0.2 0.9 1.8 Incremental Delay, d2 0.5 50.8 50.8 50.3 51.7 51.2 201.2 8.2 42.2 4.9 Incremental Delay (s) 50.8 50.8 50.8 50.3 51.7 51.2 201.2 8.2 42.2 4.9 Incremental Delay (s) 50.4 50.4 50.3 51.7 51.2 201.2 8.2 42.2 4.9 Incremental Delay (s) 50.8 50.8 50.8 50.3 51.7 51.2 201.2 8.2 42.2 4.9 Incremental Delay (s) 50.4 51.3 26.8 7.2 Incremental Delay (s) 50.4 51.3 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.4 51.3 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.4 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.3 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.8 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.8 50.8 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.8 50.8 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.8 50.8 50.8 50.3 51.7 51.2 50.2 Incremental Delay (s) 50.8 50.8 50.8 50.8 50.8 50.8 50.8 50.8	Lane Grp Cap (vph)	77	79	73	72	65		64	3137		257	2585	
/c Ratio 0.17 0.18 0.06 0.24 0.13 1.14 0.22 0.58 0.86 Iniform Delay, d1 50.4 50.4 50.2 51.1 50.9 53.0 9.1 43.9 10.8 rogression Factor 1.00 1.00 1.00 0.0 0.88 0.89 0.94 0.28 nccremental Delay, d2 0.4 0.4 0.1 0.6 0.3 154.8 0.2 0.9 1.8 belay (s) 50.8 50.8 50.3 51.7 51.2 201.2 8.2 42.2 4.9 evel of Service D D D D F A D A approach Delay (s) 50.4 51.3 26.8 7.2 2 2 42.2 4.9 4.9 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 5.1 3.0 6.8 7.2 4.0 4.0 4	v/s Ratio Prot	0.01	c0.01	0.00	c0.01	0.01		c0.04	0.13		0.08	c0.63	
Iniform Delay, d1 50.4 50.4 50.2 51.1 50.9 53.0 9.1 43.9 10.8 Progression Factor 1.00 1.00 1.00 1.00 0.88 0.89 0.94 0.28 Incremental Delay, d2 0.4 0.4 0.1 0.6 0.3 154.8 0.2 0.9 1.8 Delay (s) 50.8 50.8 50.8 50.3 51.7 51.2 201.2 8.2 42.2 4.9 Devel of Service D D D D D F A D D A Supproach Delay (s) 50.4 51.3 26.8 7.2 D D D C C A DETECTION OF THE PROPRES OF THE PROPRE	v/s Ratio Perm												
Progression Factor 1.00 1.00 1.00 1.00 1.00 0.88 0.89 0.94 0.28 Incremental Delay, d2 0.4 0.4 0.1 0.6 0.3 154.8 0.2 0.9 1.8 Incremental Delay, d2 0.5 0.8 50.8 50.8 50.3 51.7 51.2 201.2 8.2 42.2 4.9 Incremental Delay (s) 50.4 51.3 26.8 7.2 Incremental Delay (s) 50.4 51.3 26.8 Incremental Delay (s) 50.4 51.3 20.1 20.1 20.1 20.1 20.1 20.1 20.1 20.1	v/c Ratio	0.17	0.18	0.06	0.24	0.13		1.14	0.22		0.58	0.86	
Commental Delay, d2	Uniform Delay, d1	50.4	50.4	50.2	51.1	50.9		53.0	9.1		43.9	10.8	
Delay (s) 50.8 50.8 50.8 50.3 51.7 51.2 201.2 8.2 42.2 4.9 evel of Service D D D D D F A D A Approach Delay (s) 50.4 51.3 26.8 7.2 exproach LOS D D D C A PORTON COMMENT OF THE PROPRES OF	Progression Factor	1.00	1.00	1.00	1.00	1.00		0.88	0.89		0.94	0.28	
Evel of Service	Incremental Delay, d2	0.4	0.4	0.1	0.6	0.3		154.8	0.2		0.9	1.8	
Approach Delay (s) 50.4 51.3 26.8 7.2 Approach LOS D D C A	Delay (s)	50.8	50.8	50.3	51.7	51.2		201.2	8.2		42.2	4.9	
D D C A	Level of Service	D	D	D	D	D		F	Α		D	Α	
htersection Summary HCM 2000 Control Delay 14.5 HCM 2000 Level of Service B HCM 2000 Volume to Capacity ratio 0.81 Intersection Capacity Utilization 72.9% ICU Level of Service C Inalysis Period (min) 15	Approach Delay (s)		50.4			51.3			26.8			7.2	
ICM 2000 Control Delay 14.5 HCM 2000 Level of Service B ICM 2000 Volume to Capacity ratio 0.81 Actuated Cycle Length (s) 110.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 72.9% ICU Level of Service C Inallysis Period (min) 15	Approach LOS		D			D			С			Α	
tCM 2000 Volume to Capacity ratio octuated Cycle Length (s) 110.0 Sum of lost time (s) 16.0 ntersection Capacity Utilization 72.9% ICU Level of Service C onalysis Period (min) 15	Intersection Summary												
Actuated Cycle Length (s) 110.0 Sum of lost time (s) 16.0 Attersection Capacity Utilization 72.9% ICU Level of Service C Analysis Period (min) 15	HCM 2000 Control Delay			14.5	Н	CM 2000	Level of	Service		В			
Actuated Cycle Length (s) 110.0 Sum of lost time (s) 16.0 Attersection Capacity Utilization 72.9% ICU Level of Service C Analysis Period (min) 15	HCM 2000 Volume to Capa	acity ratio		0.81									
unalysis Period (min) 15	Actuated Cycle Length (s)	,		110.0	S	um of los	t time (s)			16.0			
unalysis Period (min) 15	Intersection Capacity Utiliza	ation		72.9%	IC	U Level	of Service	9		С			
	Analysis Period (min)			15									

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	ሻሻ	1	ተተ _ጉ			^			
Volume (vph)	182	32	666	158	60	1911			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0			
Lane Util. Factor	0.97	1.00	0.91		1.00	0.91			
Frt	1.00	0.85	0.97		1.00	1.00			
Flt Protected	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (prot)	3433	1583	4939		1770	5085			
Flt Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	3433	1583	4939		1770	5085			
Peak-hour factor, PHF	0.86	0.86	0.87	0.87	0.87	0.87			
Adj. Flow (vph)	212	37	766	182	69	2197			
RTOR Reduction (vph)	0	33	19	0	0	0			
Lane Group Flow (vph)	212	4	929	0	69	2197			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8	_		•	Ü			
Actuated Green, G (s)	11.4	11.4	78.4		7.4	90.3			
Effective Green, q (s)	10.9	10.9	80.2		6.9	91.1			
Actuated g/C Ratio	0.10	0.10	0.73		0.06	0.83			
Clearance Time (s)	3.5	3.5	5.8		3.5	4.8			
Vehicle Extension (s)	2.2	2.2	3.5		2.0	2.5			
Lane Grp Cap (vph)	340	156	3600		111	4211			
v/s Ratio Prot	c0.06		0.19		0.04	c0.43			
v/s Ratio Perm		0.00							
v/c Ratio	0.62	0.02	0.26		0.62	0.52			
Uniform Delay, d1	47.6	44.7	5.0		50.3	2.9			
Progression Factor	1.00	1.00	0.57		0.90	0.08			
Incremental Delay, d2	2.8	0.0	0.2		4.1	0.3			
Delay (s)	50.3	44.8	3.0		49.2	0.5			
Level of Service	D	D	Α		D	Α			
Approach Delay (s)	49.5		3.0			2.0			
Approach LOS	D		Α			Α			
Intersection Summary									
HCM 2000 Control Delay			5.7	Н	CM 2000	Level of Service	9	Α	
HCM 2000 Volume to Capa	acity ratio		0.55						
Actuated Cycle Length (s)			110.0	S	um of los	t time (s)		12.0	
Intersection Capacity Utiliza	ation		48.8%			of Service		A	
Analysis Period (min)			15						
c Critical Lane Group									

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Existing

AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				7	ર્ન	7	ሻሻ	^			∱ ∱	7
Volume (vph)	0	0	0	611	0	243	469	624	0	0	875	1190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	0.91
Frt				1.00	1.00	0.85	1.00	1.00			0.94	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1681	1583	3433	3539			3194	1441
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1681	1583	3433	3539			3194	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.89	0.89	0.89	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	745	0	296	527	701	0	0	1017	1384
RTOR Reduction (vph)	0	0	0	0	0	218	0	0	0	0	73	295
Lane Group Flow (vph)	0	0	0	372	373	78	527	701	0	0	1581	452
Turn Type				Split	NA	Prot	Prot	NA			NA	Prot
Protected Phases				8	8	8	5	2			6	6
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	21.3	78.0			52.7	52.7
Effective Green, g (s)				24.0	24.0	24.0	21.3	78.0			52.7	52.7
Actuated g/C Ratio				0.22	0.22	0.22	0.19	0.71			0.48	0.48
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				366	366	345	664	2509			1530	690
v/s Ratio Prot				0.22	c0.22	0.05	c0.15	0.20			c0.49	0.31
v/s Ratio Perm				O.LL	00.22	0.00	00.10	0.20			00.17	0.01
v/c Ratio				1.02	1.02	0.23	0.79	0.28			1.03	0.65
Uniform Delay, d1				43.0	43.0	35.4	42.3	5.8			28.6	21.7
Progression Factor				1.00	1.00	1.00	1.14	0.85			0.70	0.48
Incremental Delay, d2				51.3	52.0	0.3	6.4	0.3			30.6	4.2
Delay (s)				94.3	95.0	35.7	54.6	5.2			50.7	14.7
Level of Service				F	F	D	D	A			D	В
Approach Delay (s)		0.0			77.9			26.4			39.5	
Approach LOS		A			F			С			D	
Intersection Summary												
			44.7		014.0000		Comileo					
HCM 2000 Control Delay	, natia		44.6	Н	CM 2000	revei oi	Service		D			
HCM 2000 Volume to Capacity	/ ratio		0.98 110.0	-	um of las	t time (=)			12.0			
Actuated Cycle Length (s)	_		89.4%		um of los				12.0 F			
Intersection Capacity Utilizatio	II.			10	o Level	or Service	3		E			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			77			7		^ ^	7	7	1111	
Volume (vph)	0	0	1177	0	0	310	0	760	173	211	1290	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.83	0.83	0.83	0.80	0.80	0.80	0.93	0.93	0.93	0.82	0.82	0.82
Adj. Flow (vph)	0	0	1418	0	0	388	0	817	186	257	1573	0
RTOR Reduction (vph)	0	0	21	0	0	0	0	0	49	0	0	0
Lane Group Flow (vph)	0	0	1397	0	0	388	0	817	137	257	1573	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			58.8			110.0		81.0	81.0	21.0	64.2	
Effective Green, g (s)			58.8			110.0		81.0	81.0	21.0	64.2	
Actuated g/C Ratio			0.53			1.00		0.74	0.74	0.19	0.58	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			1591			1611		3744	1165	337	3739	
v/s Ratio Prot			c0.30					0.16		0.15	c0.25	
v/s Ratio Perm			0.20			0.24			0.09			
v/c Ratio			0.88			0.24		0.22	0.12	0.76	0.42	
Uniform Delay, d1			22.4			0.0		4.6	4.2	42.1	12.6	
Progression Factor			1.00			1.00		1.00	1.00	0.61	0.26	
Incremental Delay, d2			5.8			0.4		0.1	0.2	2.6	0.1	
Delay (s)			28.3			0.4		4.7	4.4	28.1	3.4	
Level of Service			С			Α		Α	Α	С	Α	
Approach Delay (s)		28.3			0.4			4.6			6.9	
Approach LOS		С			Α			Α			Α	
Intersection Summary												
HCM 2000 Control Delay			12.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.71									
Actuated Cycle Length (s)			110.0	S	um of los	time (s)			8.0			
Intersection Capacity Utilization			66.5%		U Level)		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	, j	∱ }		J.	∱ }		Ŋ	^	7	Ĭ	↑ ↑	
Volume (vph)	109	95	83	247	329	437	134	211	101	157	297	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.93		1.00	0.91		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3291		1770	3236		1770	3539	1583	1770	3367	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3291		1770	3236		1770	3539	1583	1770	3367	
Peak-hour factor, PHF	0.79	0.79	0.79	0.89	0.89	0.89	0.63	0.63	0.63	0.76	0.76	0.76
Adj. Flow (vph)	138	120	105	278	370	491	213	335	160	207	391	188
RTOR Reduction (vph)	0	81	0	0	276	0	0	0	125	0	72	0
Lane Group Flow (vph)	138	144	0	278	585	0	213	335	35	207	507	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	8.2	16.1		11.2	19.1		8.2	15.4	15.4	9.2	16.4	
Effective Green, g (s)	8.2	16.1		11.2	19.1		8.2	15.4	15.4	9.2	16.4	
Actuated g/C Ratio	0.12	0.23		0.16	0.27		0.12	0.22	0.22	0.13	0.23	
Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	205	751		281	876		205	773	345	230	783	
v/s Ratio Prot	0.08	0.04		c0.16	c0.18		c0.12	0.09		0.12	c0.15	
v/s Ratio Perm									0.02			
v/c Ratio	0.67	0.19		0.99	0.67		1.04	0.43	0.10	0.90	0.65	
Uniform Delay, d1	29.9	21.9		29.6	22.9		31.1	23.8	22.0	30.2	24.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.4	0.1		50.2	1.9		73.5	0.4	0.1	33.8	1.9	
Delay (s)	38.3	22.1		79.8	24.8		104.6	24.2	22.1	64.0	26.3	
Level of Service	D	С		Ε	С		F	С	С	Ε	С	
Approach Delay (s)		28.2			38.2			47.9			36.2	
Approach LOS		С			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			38.8	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.80									
Actuated Cycle Length (s)			70.5	S	um of los	t time (s)			18.6			
Intersection Capacity Utiliza	ition		64.9%	IC	CU Level	of Service	9		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	†	7	ሻ	ĵ.		7	₽		Ť	↑	7
Volume (vph)	69	89	221	113	66	10	426	212	37	33	170	302
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1826		1770	1821		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1826		1770	1821		1770	1863	1583
Peak-hour factor, PHF	0.57	0.57	0.57	0.78	0.78	0.78	0.90	0.90	0.90	0.81	0.81	0.81
Adj. Flow (vph)	121	156	388	145	85	13	473	236	41	41	210	373
RTOR Reduction (vph)	0	0	320	0	8	0	0	8	0	0	0	296
Lane Group Flow (vph)	121	156	68	145	90	0	473	269	0	41	210	77
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	10.0	12.7	12.7	7.1	9.8		22.0	33.8		3.3	15.1	15.1
Effective Green, g (s)	10.0	12.7	12.7	7.1	9.8		22.0	33.8		3.3	15.1	15.1
Actuated g/C Ratio	0.14	0.17	0.17	0.10	0.13		0.30	0.46		0.05	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	242	324	275	172	245		534	844		80	385	327
v/s Ratio Prot	0.07	c0.08		c0.08	0.05		c0.27	0.15		0.02	c0.11	
v/s Ratio Perm			0.04									0.05
v/c Ratio	0.50	0.48	0.25	0.84	0.37		0.89	0.32		0.51	0.55	0.24
Uniform Delay, d1	29.1	27.1	26.0	32.4	28.7		24.3	12.3		34.0	25.8	24.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.6	1.1	0.5	29.5	0.9		16.1	0.2		5.4	1.6	0.4
Delay (s)	30.8	28.3	26.4	61.8	29.7		40.3	12.5		39.5	27.4	24.5
Level of Service	С	С	С	E	С		D	В		D	С	С
Approach Delay (s)		27.7			48.9			30.1			26.4	
Approach LOS		С			D			С			С	
Intersection Summary												
HCM 2000 Control Delay			30.4	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capa	city ratio		0.70									
Actuated Cycle Length (s)			72.9	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	tion		56.4%	IC	U Level	of Service			В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	35	1	83	154	2	62	20	190	41	23	226	19
Peak Hour Factor	0.68	0.68	0.68	0.70	0.70	0.70	0.63	0.63	0.63	0.69	0.69	0.69
Hourly flow rate (vph)	51	1	122	220	3	89	32	302	65	33	328	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	175	311	398	388								
Volume Left (vph)	51	220	32	33								
Volume Right (vph)	122	89	65	28								
Hadj (s)	-0.33	0.00	-0.05	0.01								
Departure Headway (s)	7.2	7.0	6.6	6.7								
Degree Utilization, x	0.35	0.61	0.73	0.72								
Capacity (veh/h)	402	465	509	510								
Control Delay (s)	14.0	20.4	25.4	25.0								
Approach Delay (s)	14.0	20.4	25.4	25.0								
Approach LOS	В	С	D	С								
Intersection Summary												
Delay			22.5									
Level of Service			С									
Intersection Capacity Utiliza	ation		44.9%	IC	CU Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			↑		7
Volume (veh/h)	272	0	0	530	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	296	0	0	576	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				806		
pX, platoon unblocked						
vC, conflicting volume			296		872	296
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			296		872	296
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1266		321	744
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	296	576	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.17	0.34	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	2.0	2.3	A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			Α			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization	ation		31.2%	IC	III evel d	of Service
Analysis Period (min)	u		15	10	C LOVOI C	, Joi vide
Alialysis i cliuu (IIIII)			10			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	2	21	0	11	0	74	20	0	0	8	27
Peak Hour Factor	0.61	0.61	0.61	0.69	0.69	0.69	0.71	0.71	0.71	0.63	0.63	0.63
Hourly flow rate (vph)	7	3	34	0	16	0	104	28	0	0	13	43
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	44	16	132	56								
Volume Left (vph)	7	0	104	0								
Volume Right (vph)	34	0	0	43								
Hadj (s)	-0.40	0.03	0.19	-0.43								
Departure Headway (s)	3.9	4.4	4.3	3.7								
Degree Utilization, x	0.05	0.02	0.16	0.06								
Capacity (veh/h)	871	781	822	939								
Control Delay (s)	7.1	7.5	8.1	7.0								
Approach Delay (s)	7.1	7.5	8.1	7.0								
Approach LOS	Α	Α	Α	Α								
Intersection Summary												
Delay			7.6									
Level of Service			Α									
Intersection Capacity Utiliza	tion		23.7%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	¥	f)		J.	î,			ર્ન	7		4	
Volume (vph)	0	272	0	0	530	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0							
Lane Util. Factor		1.00			1.00							
Frt		1.00			1.00							
Flt Protected		1.00			1.00							
Satd. Flow (prot)		1863			1863							
Flt Permitted		1.00			1.00							
Satd. Flow (perm)		1863			1863							
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	296	0	0	576	0	0	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	296	0	0	576	0	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm		Perm	Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4		4	8		
Actuated Green, G (s)		28.6			28.6							
Effective Green, g (s)		28.6			28.6							
Actuated g/C Ratio		1.00			1.00							
Clearance Time (s)		4.0			4.0							
Vehicle Extension (s)		3.0			3.0							
Lane Grp Cap (vph)		1863			1863							
v/s Ratio Prot		0.16			c0.31							
v/s Ratio Perm												
v/c Ratio		0.16			0.31							
Uniform Delay, d1		0.0			0.0							
Progression Factor		1.00			1.00							
Incremental Delay, d2		0.0			0.1							
Delay (s)		0.0			0.1							
Level of Service		Α			Α							
Approach Delay (s)		0.0			0.1			0.0			0.0	
Approach LOS		Α			Α			Α			Α	
Intersection Summary												
HCM 2000 Control Delay			0.1	Н	CM 2000	Level of	Service		Α			
HCM 2000 Volume to Capacity	ratio		0.43									
Actuated Cycle Length (s)			28.6		um of los				8.0			
Intersection Capacity Utilization	1		31.2%	IC	CU Level	of Service)		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Existing PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ايواي	44	71	Jal.	44	74	14 14	†1 3		18	4	7
Volume (vph)	418	689	314	141	433	67	308	248	17	105	205	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3506		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3506		1770	1863	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.89	0.89	0.89	0.84	0.84	0.84	0.90	0.90	0.90
Adj. Flow (vph)	449	741	338	158	487	75	367	295	20	117	228	222
RTOR Reduction (vph)	0	0	235	0	0	53	0	6	0	0	0	179
Lane Group Flow (vph)	449	741	103	158	487	22	367	309	0	117	228	43
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	7.1	21.4	21.4	6.1	20.4	20.4	10.7	20.3		4.1	13.7	13.7
Effective Green, g (s)	7.1	21.4	21.4	6.1	20.4	20.4	10.7	20.3		4.1	13.7	13.7
Actuated g/C Ratio	0.10	0.31	0.31	0.09	0.29	0.29	0.15	0.29		0.06	0.20	0.20
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	347	1080	483	154	1029	460	524	1015		103	364	309
v/s Ratio Prot	c0.13	c0.21		0.09	0.14		c0.11	0.09		c0.07	c0.12	
v/s Ratio Perm			0.07			0.01						0.03
v/c Ratio	1.29	0.69	0.21	1.03	0.47	0.05	0.70	0.30		1.14	0.63	0.14
Uniform Delay, d1	31.5	21.4	18.1	32.0	20.4	17.9	28.2	19.4		33.0	25.9	23.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	152.1	1.8	0.2	79.5	0.3	0.0	4.2	0.2		129.9	3.3	0.2
Delay (s)	183.6	23.2	18.3	111.5	20.8	17.9	32.4	19.6		162.9	29.2	23.5
Level of Service	F	С	В	F	С	В	С	В		F	С	С
Approach Delay (s)		69.3			40.4			26.5			54.6	
Approach LOS		Е			D			С			D	
Intersection Summary												
HCM 2000 Control Delay			52.6	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.78									
Actuated Cycle Length (s)			70.1	S	um of los	t time (s)			18.2			
Intersection Capacity Utiliza	ation		61.6%	IC	U Level	of Service)		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	To.		Jal.	To-		Jel.	10			4	#
Volume (vph)	114	758	24	30	460	77	55	153	57	49	70	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (prot)	1770	1854		1770	1823		1770	1787			1825	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (perm)	1770	1854		1770	1823		1770	1787			1825	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.84	0.84	0.84	0.84	0.84	0.84	0.89	0.89	0.89
Adj. Flow (vph)	123	815	26	36	548	92	65	182	68	55	79	106
RTOR Reduction (vph)	0	1	0	0	5	0	0	12	0	0	0	92
Lane Group Flow (vph)	123	840	0	36	635	0	65	238	0	0	134	14
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	9.3	52.1		2.7	45.5		17.7	17.7			14.4	14.4
Effective Green, g (s)	9.3	52.1		2.7	45.5		17.7	17.7			14.4	14.4
Actuated g/C Ratio	0.09	0.49		0.03	0.43		0.17	0.17			0.14	0.14
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
Lane Grp Cap (vph)	155	912		45	783		295	298			248	215
v/s Ratio Prot	c0.07	c0.45		0.02	0.35		0.04	c0.13			c0.07	
v/s Ratio Perm												0.01
v/c Ratio	0.79	0.92		0.80	0.81		0.22	0.80			0.54	0.07
Uniform Delay, d1	47.4	25.0		51.3	26.4		38.1	42.4			42.7	39.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	23.0	14.9		62.4	7.2		0.7	15.4			3.6	0.2
Delay (s)	70.4	39.9		113.7	33.6		38.8	57.8			46.3	40.1
Level of Service	Е	D		F	С		D	Е			D	D
Approach Delay (s)		43.8			37.9			53.9			43.5	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			43.4	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.85									
Actuated Cycle Length (s)			105.9		um of los				19.0			
Intersection Capacity Utiliza	ation		78.8%	IC	U Level	of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Configurations Volume (vph) Ideal Flow (vphpl) 1 Total Lost time (s) Lane Util. Factor Frt Fit Protected (Satd. Flow (prot) 1 Fit Permitted (Satd. Flow (prom) 1 Peak-hour factor, PHF (Adj. Flow (vph)	6 1900 4.0 1.00 0.95 1770 0.95 1770 0.96 6 0	585 1900 5.7 1.00 1.00 1.00 1863 1.00 1863 0.96 609 0	268 1900 5.7 1.00 0.85 1.00 1583 1.00 1583 0.96 279	WBL 34 1900 4.0 1.00 0.95 1770 0.95 1770 0.92	WBT 349 1900 5.7 1.00 1.00 1.00 1861 1.00	3 1900	NBL 211 1900 4.6 1.00 1.00 0.95 1770 0.95	NBT 15 1900 4.6 1.00 0.88 1.00 1643 1.00	56 1900	2 1900	SBT 7 1900 4.0 1.00 0.97 0.99 1799 0.99	2 1900
Volume (vph) Ideal Flow (vphpl) 1 Total Lost time (s) Lane Util. Factor Frt 7 Fit Protected (Satd. Flow (prot) 1 Fit Permitted (Satd. Flow (perm) 1 Peak-hour factor, PHF Adj. Flow (vph)	6 1900 4.0 1.00 1.00 0.95 1770 0.95 1770 0.96 6 0	585 1900 5.7 1.00 1.00 1.00 1863 1.00 1863 0.96 609 0	268 1900 5.7 1.00 0.85 1.00 1583 1.00 1583 0.96	34 1900 4.0 1.00 1.00 0.95 1770 0.95 1770	349 1900 5.7 1.00 1.00 1.00 1861 1.00 1861	_	211 1900 4.6 1.00 1.00 0.95 1770 0.95	15 1900 4.6 1.00 0.88 1.00 1643 1.00		_	7 1900 4.0 1.00 0.97 0.99 1799 0.99	_
Ideal Flow (vphpl)	1900 4.0 1.00 1.00 0.95 1770 0.95 1770 0.96 6 0	1900 5.7 1.00 1.00 1.00 1863 1.00 1863 0.96 609 0	1900 5.7 1.00 0.85 1.00 1583 1.00 1583 0.96	1900 4.0 1.00 1.00 0.95 1770 0.95 1770	1900 5.7 1.00 1.00 1.00 1861 1.00 1861	_	1900 4.6 1.00 1.00 0.95 1770 0.95	1900 4.6 1.00 0.88 1.00 1643 1.00		_	1900 4.0 1.00 0.97 0.99 1799 0.99	_
Total Lost time (s) Lane Util. Factor Frt Fit Protected (0 Satd. Flow (prot) 1 Fit Permitted (1 Satd. Flow (perm) 1 Paek-hour factor, PHF Adj. Flow (vph)	4.0 1.00 1.00 0.95 1770 0.95 1770 0.96 6 0	5.7 1.00 1.00 1.00 1863 1.00 1863 0.96 609 0	5.7 1.00 0.85 1.00 1583 1.00 1583 0.96	4.0 1.00 1.00 0.95 1770 0.95 1770	5.7 1.00 1.00 1.00 1861 1.00 1861	1900	4.6 1.00 1.00 0.95 1770 0.95	4.6 1.00 0.88 1.00 1643 1.00	1900	1900	4.0 1.00 0.97 0.99 1799 0.99	1900
Lane Util. Factor Frt	1.00 1.00 0.95 1770 0.95 1770 0.96 6 0	1.00 1.00 1.00 1863 1.00 1863 0.96 609 0	1.00 0.85 1.00 1583 1.00 1583 0.96	1.00 1.00 0.95 1770 0.95 1770	1.00 1.00 1.00 1861 1.00 1861		1.00 1.00 0.95 1770 0.95	1.00 0.88 1.00 1643 1.00			1.00 0.97 0.99 1799 0.99	
Frt Fit Protected (Satd. Flow (prot) 1 Fit Permitted (Satd. Flow (perm) 1 Peak-hour factor, PHF (Adj. Flow (vph)	1.00 0.95 1770 0.95 1770 0.96 6 0	1.00 1.00 1863 1.00 1863 0.96 609 0	0.85 1.00 1583 1.00 1583 0.96	1.00 0.95 1770 0.95 1770	1.00 1.00 1861 1.00 1861		1.00 0.95 1770 0.95	0.88 1.00 1643 1.00			0.97 0.99 1799 0.99	
Fit Protected	0.95 1770 0.95 1770 0.96 6 0	1.00 1863 1.00 1863 0.96 609 0	1.00 1583 1.00 1583 0.96	0.95 1770 0.95 1770	1.00 1861 1.00 1861		0.95 1770 0.95	1.00 1643 1.00			0.99 1799 0.99	
Satd. Flow (prot) 1 Flt Permitted 0 Satd. Flow (perm) 1 Peak-hour factor, PHF 0 Adj. Flow (vph) 0	1770 0.95 1770 0.96 6 0 6	1863 1.00 1863 0.96 609 0	1583 1.00 1583 0.96	1770 0.95 1770	1861 1.00 1861		1770 0.95	1643 1.00			1799 0.99	
FIt Permitted (Satd. Flow (perm) 1 Peak-hour factor, PHF Adj. Flow (vph)	0.95 1770 0.96 6 0 6	1.00 1863 0.96 609 0	1.00 1583 0.96	0.95 1770	1.00 1861		0.95	1.00			0.99	
Satd. Flow (perm) 1 Peak-hour factor, PHF Adj. Flow (vph)	0.96 6 0 6	1863 0.96 609 0	1583 0.96	1770	1861							
Peak-hour factor, PHF (Adj. Flow (vph)	0.96 6 0 6	0.96 609 0	0.96				1770	16/12			1700	
Adj. Flow (vph)	6 0 6	609 0		0.92			1110	1043			1799	
	0	0	279		0.92	0.92	0.90	0.90	0.90	0.69	0.69	0.69
	6			37	379	3	234	17	62	3	10	3
RTOR Reduction (vph)			94	0	0	0	0	48	0	0	3	0
Lane Group Flow (vph)	Drot	609	185	37	382	0	234	31	0	0	13	0
Turn Type	FIUL	NA	Perm	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		. 8	8		4	4	
Permitted Phases			6									
Actuated Green, G (s)	0.8	36.4	36.4	4.0	39.6		18.1	18.1			1.9	
Effective Green, q (s)	0.8	36.4	36.4	4.0	39.6		18.1	18.1			1.9	
Actuated g/C Ratio (0.01	0.46	0.46	0.05	0.50		0.23	0.23			0.02	
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Vehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
Lane Grp Cap (vph)	17	861	732	89	936		407	377			43	
	0.00	c0.33		c0.02	c0.21		c0.13	0.02			c0.01	
v/s Ratio Perm			0.12									
v/c Ratio (0.35	0.71	0.25	0.42	0.41		0.57	0.08			0.30	
Uniform Delay, d1	38.7	16.9	12.9	36.2	12.2		26.9	23.8			37.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	9.0	2.7	0.2	2.3	0.3		1.6	0.1			2.9	
Delay (s)	47.7	19.6	13.1	38.5	12.5		28.5	23.9			40.6	
Level of Service	D	В	В	D	В		С	С			D	
Approach Delay (s)		17.7			14.8			27.3			40.6	
Approach LOS		В			В			С			D	
Intersection Summary												
HCM 2000 Control Delay			19.0	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capacity ra	atio		0.63									
Actuated Cycle Length (s)			78.7	Si	um of los	t time (s)			18.3			
Intersection Capacity Utilization			57.7%			of Service			В			
Analysis Period (min)			15			2200						
c Critical Lane Group												

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			ৰ	16	P ^r
Volume (veh/h)	641	27	4	357	21	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.82	0.82	0.78	0.78
Hourly flow rate (vph)	704	30	5	435	27	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			734		1164	719
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			734		1164	719
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		87	99
cM capacity (veh/h)			871		214	428
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	734	440	27	5		
Volume Left	0	5	27	0		
Volume Right	30	0	0	5		
cSH	1700	871	214	428		
Volume to Capacity	0.43	0.01	0.13	0.01		
Queue Length 95th (ft)	0	0	11	1		
Control Delay (s)	0.0	0.2	24.3	13.5		
Lane LOS		Α	С	В		
Approach Delay (s)	0.0	0.2	22.5			
Approach LOS			С			
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utili	zation		45.4%	IC	U Level	of Service
Analysis Period (min)			15			
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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		ৰ	12		pha.		
Volume (veh/h)	0	645	361	0	0	0	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	701	392	0	0	0	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	392				1093	392	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	392				1093	392	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.3	
p0 queue free %	100				100	100	
cM capacity (veh/h)	1166				237	656	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	701	392	0				
Volume Left	0	0	0				
Volume Right	0	0	0				
cSH	1166	1700	1700				
Volume to Capacity	0.00	0.23	0.00				
Queue Length 95th (ft)	0	0	0				
Control Delay (s)	0.0	0.0	0.0				
Lane LOS			Α				
Approach Delay (s)	0.0	0.0	0.0				
Approach LOS			Α				
Intersection Summary							
Average Delay	•		0.0		_		
Intersection Capacity Utilizat	tion		37.3%	IC	CU Level o	of Service	
Analysis Period (min)			15				

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		ৰ্	12		gla	
Volume (veh/h)	12	638	353	5	10	14
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.87	0.87	0.75	0.75
Hourly flow rate (vph)	13	701	406	6	13	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	411				1136	409
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	411				1136	409
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				94	97
cM capacity (veh/h)	1147				221	643
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	714	411	32			
Volume Left	13	0	13			
Volume Right	0	6	19			
cSH	1147	1700	358			
Volume to Capacity	0.01	0.24	0.09			
Queue Length 95th (ft)	1	0.21	7			
Control Delay (s)	0.3	0.0	16.0			
Lane LOS	A	0.0	C			
Approach Delay (s)	0.3	0.0	16.0			
Approach LOS	0.0	0.0	C			
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utili	ization		53.2%	IC	U Level	of Service
Analysis Period (min)			15			
, mary sis i criou (mill)			10			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			440			4	
Volume (veh/h)	45	592	18	16	339	7	8	1	11	7	0	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.71	0.71	0.71	0.53	0.53	0.53
Hourly flow rate (vph)	49	651	20	18	373	8	11	1	15	13	0	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	380			670			1197	1175	660	1187	1181	376
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	380			670			1197	1175	660	1187	1181	376
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			98			92	99	97	91	100	96
cM capacity (veh/h)	1178			920			149	180	463	151	179	670
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	720	398	28	40								
Volume Left	49	18	11	13								
Volume Right	20	8	15	26								
cSH	1178	920	241	313								
Volume to Capacity	0.04	0.02	0.12	0.13								
Queue Length 95th (ft)	3	1	10	11								
Control Delay (s)	1.1	0.6	21.9	18.2								
Lane LOS	Α	Α	С	С								
Approach Delay (s)	1.1	0.6	21.9	18.2								
Approach LOS			С	С								
Intersection Summary												
Average Delay			2.0									
Intersection Capacity Utiliza	ation		58.9%	IC	CU Level of	of Service			В			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	4			4			Τ
Volume (veh/h)	665	0	0	370	0	0	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	723	0	0	402	0	0	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			723		1125	723	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			723		1125	723	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		100	100	
cM capacity (veh/h)			879		227	426	
Direction, Lane #	EB 1	WB 1					
Volume Total	723	402					_
Volume Left		402					
	0	0					
Volume Right cSH	-	1700					
Volume to Capacity	1700 0.43	0.24					
Queue Length 95th (ft)	0	0					
Control Delay (s) Lane LOS	0.0	0.0					
	0.0	0.0					
Approach Delay (s)	0.0	0.0					
Approach LOS							
Intersection Summary							
Average Delay			0.0				
Intersection Capacity Utiliza							
Analysis Period (min)	tion		38.3% 15	IC	CU Level	of Service	

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Dixon Ranch			
9: Bass Lake Rd.	& Green \	/alley F	₹d

Existing PM Peak

Dixon R	nch	
10: Cam	oridge Rd. & Green Valley R	c

Existing	
PM Peak	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J,	To		Jal.	To-			4	ř ^e		4	
Volume (vph)	2	549	114	110	299	8	60	6	177	15	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.97		1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Satd. Flow (prot)	1770	1815		1770	1856			1782	1583		1736	
Flt Permitted	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Satd. Flow (perm)	1770	1815		1770	1856			1782	1583		1736	
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.62	0.62	0.62
Adj. Flow (vph)	2	597	124	125	340	9	71	7	211	24	10	18
RTOR Reduction (vph)	0	7	0	0	1	0	0	0	187	0	17	0
Lane Group Flow (vph)	2	714	0	125	348	0	0	78	24	0	35	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	0.7	38.2		7.1	44.6			8.5	8.5		4.4	
Effective Green, g (s)	0.7	38.2		7.1	44.6			8.5	8.5		4.4	
Actuated g/C Ratio	0.01	0.51		0.10	0.60			0.11	0.11		0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	16	934		169	1115			204	181		102	
v/s Ratio Prot	0.00	c0.39		c0.07	0.19			c0.04			c0.02	
v/s Ratio Perm									0.02			
v/c Ratio	0.12	0.76		0.74	0.31			0.38	0.13		0.34	
Uniform Delay, d1	36.4	14.4		32.7	7.3			30.4	29.5		33.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	3.5	3.8		15.5	0.2			1.2	0.3		2.0	
Delay (s)	40.0	18.2		48.2	7.4			31.6	29.9		35.5	
Level of Service	D	В		D	Α			С	С		D	
Approach Delay (s)		18.2			18.2			30.3			35.5	
Approach LOS		В			В			С			D	
Intersection Summary												
HCM 2000 Control Delay			21.1	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.67									
Actuated Cycle Length (s)			74.2		um of los				16.0			
Intersection Capacity Utiliza	ation		60.4%	IC	U Level	of Service	•		В			
Analysis Period (min)			15									
c Critical Lane Group												

Movement	EBL	EBI	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3/2	T.		Jal.	14		jht.	To			4	
Volume (vph)	24	571	140	43	311	8	95	4	69	7	4	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.86			0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1808		1770	1856		1770	1598			1705	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1808		1770	1856		1770	1598			1705	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.93	0.93	0.93	0.58	0.58	0.58
Adj. Flow (vph)	27	642	157	48	349	9	102	4	74	12	7	21
RTOR Reduction (vph)	0	7	0	0	1	0	0	66	0	0	20	C
Lane Group Flow (vph)	27	792	0	48	357	0	102	12	0	0	20	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Actuated Green, G (s)	1.6	40.3		2.0	40.7		7.5	7.5			3.7	
Effective Green, g (s)	1.6	40.3		2.0	40.7		7.5	7.5			3.7	
Actuated g/C Ratio	0.02	0.58		0.03	0.59		0.11	0.11			0.05	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	40	1048		50	1086		191	172			90	
v/s Ratio Prot	0.02	c0.44		c0.03	0.19		c0.06	0.01			c0.01	
v/s Ratio Perm	0.02	00		00.00	0.10		00.00	0.01			00.01	
v/c Ratio	0.68	0.76		0.96	0.33		0.53	0.07			0.22	
Uniform Delay, d1	33.7	10.9		33.7	7.4		29.3	27.9			31.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	36.7	3.1		111.0	0.2		2.9	0.2			1.3	
Delay (s)	70.4	14.1		144.7	7.6		32.2	28.0			32.8	
Level of Service	Е	В		F	A		С	С			С	
Approach Delay (s)		15.9			23.8		ŭ	30.4			32.8	
Approach LOS		В			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			20.4	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capac	ity ratio		0.69		o 2000	2010.0.0			Ŭ			
Actuated Cycle Length (s)	nij ratio		69.5	Si	um of los	t time (s)			16.0			
Intersection Capacity Utilizat	ion		57.2%			of Service			В			
Analysis Period (min)			15	- 10		2. 20. 1.00						
c Critical Lane Group												

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Lane Configurations

Volume (vph)

Ideal Flow (vphpl)

Total Lost time (s)

Lane Util. Factor

Satd. Flow (prot)

Satd. Flow (perm)

Adj. Flow (vph)

Turn Type

Peak-hour factor, PHF

RTOR Reduction (vph)

Lane Group Flow (vph)

Protected Phases

Permitted Phases Actuated Green, G (s)

Effective Green, g (s)

Actuated g/C Ratio

Clearance Time (s)

Vehicle Extension (s)

Lane Grp Cap (vph) v/s Ratio Prot

v/s Ratio Perm v/c Ratio

Delay (s)

Uniform Delay, d1

Progression Factor

Level of Service

Approach LOS

Approach Delay (s)

Incremental Delay, d2

Flt Protected

Flt Permitted

Frt

EBL

78

1900

4.0

1.00

1.00

0.95

1770

0.95

1770

0.93

0

84

Prot

6.0

6.0

0.09

4.0

3.0

167

0.05

0.50

27.3

1.00

2.4

29.7

С

Intersection Summary				
HCM 2000 Control Delay	30.4	HCM 2000 Level of Service	С	
HCM 2000 Volume to Capacity ratio	0.76			
Actuated Cycle Length (s)	63.5	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	65.3%	ICU Level of Service	С	
Analysis Period (min)	15			
c Critical Lane Group				

Dixon Ranch 12: El Dorado Hills Blvd. & Francisco Dr. Existing PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		4			4		Jal.	10		10	1	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	41	449	26	35	40	504	281	19	9	156	2
Peak Hour Factor	0.89	0.89	0.89	0.60	0.60	0.60	0.94	0.94	0.94	0.84	0.84	0.84
Hourly flow rate (vph)	0	46	504	43	58	67	536	299	20	11	186	2
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	551	168	536	319	11	188						
Volume Left (vph)	0	43	536	0	11	0						
Volume Right (vph)	504	67	0	20	0	2						
Hadj (s)	-0.52	-0.15	0.53	-0.01	0.53	0.03						
Departure Headway (s)	6.4	7.9	8.2	7.6	9.0	8.5						
Degree Utilization, x	0.98	0.37	1.22	0.68	0.03	0.44						
Capacity (veh/h)	558	443	445	462	391	417						
Control Delay (s)	58.4	15.4	142.8	23.9	11.0	16.8						
Approach Delay (s)	58.4	15.4	98.4		16.5							
Approach LOS	F	С	F		С							
Intersection Summary												
Delay			68.9									
Level of Service			F									
Intersection Capacity Utilizat	tion		76.2%	IC	U Level	of Service			D			
Analysis Period (min)			15									

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	75	i ⁿ	4 12		14.44	^			
Volume (vph)	141	125	844	184	162	539			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	1.00	0.95		0.97	0.95			
Frt	1.00	0.85	0.97		1.00	1.00			
Flt Protected	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (prot)	1770	1583	3444		3433	3539			
Flt Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	1770	1583	3444		3433	3539			
Peak-hour factor, PHF	0.84	0.84	0.94	0.94	0.87	0.87			
Adj. Flow (vph)	168	149	898	196	186	620			
RTOR Reduction (vph)	0	124	28	0	0	0			
Lane Group Flow (vph)	168	25	1066	0	186	620			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8							
Actuated Green, G (s)	7.9	7.9	23.1		3.7	30.8			
Effective Green, g (s)	7.9	7.9	23.1		3.7	30.8			
Actuated g/C Ratio	0.17	0.17	0.49		0.08	0.66			
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	299	267	1703		271	2334			
v/s Ratio Prot	c0.09		c0.31		c0.05	0.18			
v/s Ratio Perm		0.02							
v/c Ratio	0.56	0.09	0.63		0.69	0.27			
Uniform Delay, d1	17.8	16.4	8.6		20.9	3.3			
Progression Factor	1.00	1.00	1.00		1.00	1.00			
Incremental Delay, d2	2.4	0.2	0.7		7.0	0.1			
Delay (s)	20.2	16.5	9.4		28.0	3.3			
Level of Service	С	В	Α		С	Α			
Approach Delay (s)	18.5		9.4			9.0			
Approach LOS	В		Α			Α			
Intersection Summary									
HCM 2000 Control Delay			10.5	Н	CM 2000	Level of Service	e	В	
HCM 2000 Volume to Capac	ity ratio		0.62						
Actuated Cycle Length (s)			46.7	S	um of lost	time (s)		12.0	
Intersection Capacity Utilizat	ion		51.6%	IC	CU Level	of Service		Α	
Analysis Period (min)			15						
Critical Lane Group									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3	14		,ht	4		,ąc	44	P ^a	1	+1>	
Volume (vph)	25	18	46	274	33	18	120	1241	535	24	745	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.89		1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1661		1681	1682		1770	3539	1583	1770	3509	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1661		1681	1682		1770	3539	1583	1770	3509	
Peak-hour factor, PHF	0.74	0.74	0.74	0.86	0.86	0.86	0.94	0.94	0.94	0.93	0.93	0.93
Adj. Flow (vph)	34	24	62	319	38	21	128	1320	569	26	801	49
RTOR Reduction (vph)	0	60	0	0	4	0	0	0	0	0	3	0
Lane Group Flow (vph)	34	26	0	188	186	0	128	1320	569	26	847	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	4.1	4.1		15.7	15.7		14.2	77.7	115.0	3.3	66.8	
Effective Green, g (s)	4.1	4.1		15.7	15.7		14.2	77.7	115.0	3.3	66.8	
Actuated g/C Ratio	0.04	0.04		0.14	0.14		0.12	0.68	1.00	0.03	0.58	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	63	59		229	229		218	2391	1583	50	2038	
v/s Ratio Prot	0.02	0.02		c0.11	0.11		c0.07	c0.37		0.01	0.24	
v/s Ratio Perm									c0.36			
v/c Ratio	0.54	0.44		0.82	0.81		0.59	0.55	0.36	0.52	0.42	
Uniform Delay, d1	54.5	54.3		48.3	48.2		47.6	9.6	0.0	55.1	13.3	
Progression Factor	1.00	1.00		1.00	1.00		0.65	0.27	1.00	1.00	1.00	
Incremental Delay, d2	4.4	1.9		19.6	18.3		2.2	0.8	0.5	4.4	0.6	
Delay (s)	58.9	56.3		67.9	66.5		33.2	3.4	0.5	59.5	13.9	
Level of Service	E	E		Е	Е		С	Α	Α	Е	В	
Approach Delay (s)		57.0			67.2			4.5			15.3	
Approach LOS		Е			Е			Α			В	
Intersection Summary												
HCM 2000 Control Delay			16.1	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capa	acity ratio		0.60									
Actuated Cycle Length (s)	•		115.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utiliza	ation		64.3%	IC	U Level	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations)j	4	54,	Jal.	To-		34,	44%		7	41>	
Volume (vph)	31	19	75	43	11	304	94	1530	77	158	827	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.91		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.86		1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1681	1748	1583	1770	1593		1770	5049		1770	3522	
Flt Permitted	0.95	0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1681	1748	1583	1770	1593		1770	5049		1770	3522	
Peak-hour factor, PHF	0.89	0.89	0.89	0.91	0.91	0.91	0.88	0.88	0.88	0.98	0.98	0.98
Adj. Flow (vph)	35	21	84	47	12	334	107	1739	88	161	844	28
RTOR Reduction (vph)	0	0	81	0	310	0	0	3	0	0	1	0
Lane Group Flow (vph)	28	28	3	47	36	0	107	1824	0	161	871	0
Turn Type	Split	NA	Prot	Split	NA		Prot	NA		Prot	NA	
Protected Phases	7	7	7	8	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	4.6	4.6	4.6	8.1	8.1		7.7	70.9		13.7	76.9	
Effective Green, g (s)	4.6	4.6	4.6	8.1	8.1		7.7	72.6		13.7	78.6	
Actuated g/C Ratio	0.04	0.04	0.04	0.07	0.07		0.07	0.63		0.12	0.68	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.7		4.0	5.7	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	4.2		0.2	4.2	
Lane Grp Cap (vph)	67	69	63	124	112		118	3187		210	2407	
v/s Ratio Prot	c0.02	0.02	0.00	c0.03	0.02		0.06	c0.36		c0.09	0.25	
v/s Ratio Perm												
v/c Ratio	0.42	0.41	0.05	0.38	0.32		0.91	0.57		0.77	0.36	
Uniform Delay, d1	53.9	53.9	53.1	51.0	50.8		53.3	12.2		49.1	7.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.78	0.90		0.93	0.35	
Incremental Delay, d2	1.5	1.4	0.1	0.7	0.6		47.3	0.6		12.9	0.4	
Delay (s)	55.4	55.3	53.2	51.8	51.4		88.7	11.7		58.6	3.1	
Level of Service	E	Е	D	D	D		F	В		Е	Α	
Approach Delay (s)		54.1			51.5			16.0			11.7	
Approach LOS		D			D			В			В	
Intersection Summary												
HCM 2000 Control Delay			20.2	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.58									
Actuated Cycle Length (s)	•		115.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	tion		69.4%	IC	U Level	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	16.54	PF.	ተተጉ		16	ተ ቀተ			
Volume (vph)	247	82	1577	320	61	910			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0			
Lane Util. Factor	0.97	1.00	0.91		1.00	0.91			
Frt	1.00	0.85	0.97		1.00	1.00			
Flt Protected	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (prot)	3433	1583	4956		1770	5085			
Flt Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	3433	1583	4956		1770	5085			
Peak-hour factor, PHF	0.77	0.77	0.89	0.89	0.96	0.96			
Adj. Flow (vph)	321	106	1772	360	64	948			
RTOR Reduction (vph)	0	92	19	0	0	0			
Lane Group Flow (vph)	321	14	2113	0	64	948			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8							
Actuated Green, G (s)	15.3	15.3	78.5		8.4	91.4			
Effective Green, g (s)	14.8	14.8	80.3		7.9	92.2			
Actuated g/C Ratio	0.13	0.13	0.70		0.07	0.80			
Clearance Time (s)	3.5	3.5	5.8		3.5	4.8			
Vehicle Extension (s)	2.2	2.2	3.5		2.0	2.5			
Lane Grp Cap (vph)	441	203	3460		121	4076			
v/s Ratio Prot	c0.09		c0.43		c0.04	0.19			
v/s Ratio Perm		0.01							
v/c Ratio	0.73	0.07	0.61		0.53	0.23			
Uniform Delay, d1	48.2	44.0	9.1		51.8	2.8			
Progression Factor	1.00	1.00	1.39		1.21	0.75			
Incremental Delay, d2	5.2	0.1	0.6		1.8	0.1			
Delay (s)	53.4	44.1	13.2		64.3	2.2			
Level of Service	D	D	В		Е	Α			
Approach Delay (s)	51.1		13.2			6.1			
Approach LOS	D		В			Α			
Intersection Summary									
HCM 2000 Control Delay			15.8	Н	CM 2000	Level of Service	e	В	
HCM 2000 Volume to Capa	acity ratio		0.62						
Actuated Cycle Length (s)			115.0		um of los			12.0	
Intersection Capacity Utilization	ation		58.0%	IC	CU Level	of Service		В	
Analysis Period (min)			15						
c Critical Lane Group									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				Jal.	र्च	74	34.34	44			1	#
Volume (vph)	0	0	0	303	1	235	1137	1735	0	0	601	507
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	0.91
Frt				1.00	1.00	0.85	1.00	1.00			0.97	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1686	1583	3433	3539			3279	1441
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1686	1583	3433	3539			3279	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.95	0.95	0.95	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	361	1	280	1197	1826	0	0	668	563
RTOR Reduction (vph)	0	0	0	0	0	51	0	0	0	0	18	146
Lane Group Flow (vph)	0	0	0	180	182	229	1197	1826	0	0	836	231
Turn Type				Split	NA	Prot	Prot	NA			NA	Prot
Protected Phases				8	8	8	5	2			6	6
Permitted Phases												
Actuated Green, G (s)				12.0	12.0	12.0	51.5	95.0			39.5	39.5
Effective Green, g (s)				12.0	12.0	12.0	51.5	95.0			39.5	39.5
Actuated g/C Ratio				0.10	0.10	0.10	0.45	0.83			0.34	0.34
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				175	175	165	1537	2923			1126	494
v/s Ratio Prot				0.11	0.11	c0.14	c0.35	0.52			c0.26	0.16
v/s Ratio Perm												
v/c Ratio				1.03	1.04	1.39	0.78	0.62			0.74	0.47
Uniform Delay, d1				51.5	51.5	51.5	26.9	3.6			33.3	29.5
Progression Factor				1.00	1.00	1.00	0.79	0.38			0.62	0.47
Incremental Delay, d2				75.7	79.0	207.3	2.0	8.0			4.3	3.1
Delay (s)				127.2	130.5	258.8	23.4	2.2			25.1	17.0
Level of Service				F	F	F	С	Α			С	В
Approach Delay (s)		0.0			185.5			10.6			22.6	
Approach LOS		Α			F			В			С	
Intersection Summary												
HCM 2000 Control Delay			36.5	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacit	ty ratio		0.84									
Actuated Cycle Length (s)			115.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utilization	on		72.9%	IC	CU Level	of Service)		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			74.54			74		444	ř*	1	44	
Volume (vph)	0	0	774	0	0	1023	0	1844	720	200	690	0
	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.95	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	3539	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	3539	
Peak-hour factor, PHF	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	0	0	823	0	0	1100	0	1983	774	225	775	0
RTOR Reduction (vph)	0	0	335	0	0	0	0	0	118	0	0	0
Lane Group Flow (vph)	0	0	488	0	0	1100	0	1983	656	225	775	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			37.7			115.0		77.0	77.0	30.0	99.3	
Effective Green, g (s)			37.7			115.0		77.0	77.0	30.0	99.3	
Actuated g/C Ratio			0.33			1.00		0.67	0.67	0.26	0.86	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			1010			1611		3404	1059	461	3055	
v/s Ratio Prot			0.03					0.39		0.13	0.22	
v/s Ratio Perm			0.14			c0.68			0.41			
v/c Ratio			0.48			0.68		0.58	0.62	0.49	0.25	
Uniform Delay, d1			30.9			0.0		10.3	10.7	36.0	1.4	
Progression Factor			1.00			1.00		1.00	1.00	0.28	0.03	
Incremental Delay, d2			0.4			2.4		0.7	2.7	0.4	0.1	
Delay (s)			31.2			2.4		11.0	13.5	10.4	0.1	
Level of Service			С			Α		В	В	В	Α	
Approach Delay (s)		31.2			2.4			11.7			2.4	
Approach LOS		С			Α			В			Α	
Intersection Summary												
HCM 2000 Control Delay			11.1	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capacity r	atio		0.73									
Actuated Cycle Length (s)			115.0	S	um of los	t time (s)			8.0			
Intersection Capacity Utilization			62.3%	IC	U Level	of Service			В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	47		74	47		Jac.	44	ju.	7	41>	
Volume (vph)	85	331	39	131	184	143	74	265	222	170	170	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.93		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3483		1770	3307		1770	3539	1583	1770	3375	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3483		1770	3307		1770	3539	1583	1770	3375	
Peak-hour factor, PHF	0.83	0.83	0.83	0.95	0.95	0.95	0.91	0.91	0.91	0.81	0.81	0.81
Adj. Flow (vph)	102	399	47	138	194	151	81	291	244	210	210	94
RTOR Reduction (vph)	0	12	0	0	110	0	0	0	196	0	74	0
Lane Group Flow (vph)	102	434	0	138	235	0	81	291	48	210	230	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	4.0	12.2		6.1	14.3		4.0	10.2	10.2	5.0	11.2	
Effective Green, g (s)	4.0	12.2		6.1	14.3		4.0	10.2	10.2	5.0	11.2	
Actuated g/C Ratio	0.08	0.23		0.12	0.27		0.08	0.20	0.20	0.10	0.21	
Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	135	815		207	907		135	692	309	169	725	
v/s Ratio Prot	0.06	c0.12		c0.08	0.07		0.05	c0.08		c0.12	0.07	
v/s Ratio Perm									0.03			
v/c Ratio	0.76	0.53		0.67	0.26		0.60	0.42	0.15	1.24	0.32	
Uniform Delay, d1	23.6	17.5		22.0	14.8		23.3	18.4	17.4	23.6	17.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	21.1	0.7		7.9	0.2		7.0	0.4	0.2	149.1	0.3	
Delay (s)	44.7	18.1		29.9	14.9		30.3	18.8	17.6	172.7	17.5	
Level of Service	D	В		С	В		С	В	В	F	В	
Approach Delay (s)		23.1			19.2			19.8			80.9	
Approach LOS		С			В			В			F	
Intersection Summary												
HCM 2000 Control Delay			35.0	H	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capaci	ty ratio		0.62									
Actuated Cycle Length (s)			52.1	Sı	um of los	t time (s)			18.6			
Intersection Capacity Utilization	on		49.9%	IC	U Level	of Service			Α			
	011											
Analysis Period (min)	OII		15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3,1	ተ	74'	140	7.		,hc	To		1	4	#
Volume (vph)	121	10	185	8	10	5	177	284	10	9	195	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1766		1770	1853		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1766		1770	1853		1770	1863	1583
Peak-hour factor, PHF	0.87	0.87	0.87	0.58	0.58	0.58	0.85	0.85	0.85	0.90	0.90	0.90
Adj. Flow (vph)	139	11	213	14	17	9	208	334	12	10	217	74
RTOR Reduction (vph)	0	0	177	0	9	0	0	2	0	0	0	56
Lane Group Flow (vph)	139	11	36	14	17	0	208	344	0	10	217	18
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	6.3	7.1	7.1	0.5	1.3		7.7	17.4		0.5	10.2	10.2
Effective Green, g (s)	6.3	7.1	7.1	0.5	1.3		7.7	17.4		0.5	10.2	10.2
Actuated g/C Ratio	0.15	0.17	0.17	0.01	0.03		0.19	0.42		0.01	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	268	318	270	21	55		328	776		21	457	389
v/s Ratio Prot	c0.08	0.01		0.01	0.01		c0.12	c0.19		0.01	0.12	
v/s Ratio Perm			c0.02									0.01
v/c Ratio	0.52	0.03	0.13	0.67	0.31		0.63	0.44		0.48	0.47	0.05
Uniform Delay, d1	16.2	14.3	14.6	20.4	19.7		15.6	8.6		20.4	13.4	11.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.7	0.0	0.2	58.7	3.3		4.0	0.4		16.0	8.0	0.0
Delay (s)	17.9	14.4	14.8	79.1	22.9		19.6	9.0		36.4	14.1	12.0
Level of Service	В	В	В	Е	С		В	Α		D	В	В
Approach Delay (s)		16.0			42.6			13.0			14.4	
Approach LOS		В			D			В			В	
Intersection Summary												
HCM 2000 Control Delay			15.1	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.56									
Actuated Cycle Length (s)			41.5	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	tion		43.4%	IC	U Level	of Service			Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 24: Silva Valley Pk	wy. & A	ppian	Way									sting M Peak
	۶	-	•	•	—	•	•	†	/	/	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	17	4	39	56	2	43	70	243	89	47	191	29
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	22	5	49	64	2	49	82	286	105	55	225	34
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	76	116	473	314								
Volume Left (vph)	22	64	82	55								
Volume Right (vph)	49	49	105	34								
Hadj (s)	-0.30	-0.11	-0.06	0.00								
Departure Headway (s)	5.8	5.9	4.9	5.1								
Degree Utilization, x	0.12	0.19	0.64	0.45								
Capacity (veh/h)	514	530	714	670								
Control Delay (s)	9.6	10.3	16.0	12.2								
Approach Delay (s)	9.6	10.3	16.0	12.2								
Approach LOS	Α	В	С	В								
Intersection Summary												
Delay			13.6									
Level of Service			В									
Intersection Capacity Utiliza	ation		47.0%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Road Existing AM Peak

Page 2

	•	-	•	←	4	1	. ↓	4	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	27	338	67	849	55	133	418	199	
v/c Ratio	0.26	0.41	0.47	0.96	0.25	0.56	1.14	0.44	
Control Delay	60.6	25.3	63.1	51.7	49.2	52.9	131.3	13.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	60.6	25.3	63.1	51.7	49.2	52.9	131.3	13.7	
Queue Length 50th (ft)	20	171	50	625	39	87	~381	21	
Queue Length 95th (ft)	49	262	99	#996	58	107	#532	67	
Internal Link Dist (ft)		1935		786		1468	502		
Turn Bay Length (ft)	85		105		165				
Base Capacity (vph)	232	889	232	889	379	392	368	451	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.12	0.38	0.29	0.96	0.15	0.34	1.14	0.44	

Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Dixon Ranch 3: Silva Valley Pkwy. & Green Valley Rd. Existing AM Peak

	•	→	•	•	←	•	†	↓	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	2	219	205	65	613	396	115	59	
v/c Ratio	0.02	0.39	0.33	0.38	0.83	0.62	0.18	0.35	
Control Delay	50.5	28.8	5.1	50.3	35.7	34.4	23.3	48.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	50.5	28.8	5.1	50.3	35.7	34.4	23.3	48.9	
Queue Length 50th (ft)	1	104	0	35	302	186	36	31	
Queue Length 95th (ft)	11	180	47	96	533	315	82	74	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	328	1210	1100	328	1204	636	643	470	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.01	0.18	0.19	0.20	0.51	0.62	0.18	0.13	
Intersection Summary									

Dixon Ranch 17: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB Ramp

Existing	
AM Peak	

	•	•		7	T	¥	*
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	372	373	296	527	701	1654	747
v/c Ratio	1.02	1.02	0.53	0.79	0.28	1.03	0.76
Control Delay	94.7	95.4	9.2	57.3	5.2	50.3	7.7
Queue Delay	0.0	0.0	0.1	0.0	0.0	2.3	0.4
Total Delay	94.7	95.4	9.2	57.3	5.3	52.6	8.1
Queue Length 50th (ft)	~285	~286	10	173	63	~660	53
Queue Length 95th (ft)	#420	#421	57	208	77	#648	123
Internal Link Dist (ft)		600			562	105	
Turn Bay Length (ft)	410		185	260			
Base Capacity (vph)	366	366	563	749	2509	1603	985
Starvation Cap Reductn	0	0	0	0	0	10	41
Spillback Cap Reductn	0	0	10	0	129	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	1.02	0.54	0.70	0.29	1.04	0.79

Intersection Summary

Queue shown is maximum after two cycles.

Dixon Ranch 18: Latrobe Rd. & US-50 EB Ramp Existing AM Peak

	•	•	†	/	-	ţ
Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1418	388	817	186	257	1573
v/c Ratio	0.88	0.24	0.22	0.15	0.76	0.42
Control Delay	27.3	0.4	4.7	0.9	30.9	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	0.4	4.7	0.9	30.9	3.4
Queue Length 50th (ft)	439	0	57	0	143	70
Queue Length 95th (ft)	474	0	70	17	m140	m61
Internal Link Dist (ft)			720			562
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	1640	1611	3744	1214	337	3740
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.24	0.22	0.15	0.76	0.42
Intersection Summary						
m Volume for 95th percer	ntile queue i	is metere	d hy unst	ream sin	nal	

Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Road Existing PM Peak

	۶	\rightarrow	•	•	1	†	ţ	4	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	123	841	36	640	65	250	134	106	
v/c Ratio	0.78	0.92	0.61	0.82	0.22	0.80	0.54	0.32	
Control Delay	81.1	42.3	93.5	37.7	41.6	60.7	51.1	6.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	81.1	42.3	93.5	37.7	41.6	60.7	51.1	6.5	
Queue Length 50th (ft)	84	529	25	375	39	157	87	0	
Queue Length 95th (ft)	#194	#870	#75	514	77	#263	147	29	
Internal Link Dist (ft)		1935		786		1468	502		
Turn Bay Length (ft)	85		105		165				
Base Capacity (vph)	160	918	59	802	314	328	385	439	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.77	0.92	0.61	0.80	0.21	0.76	0.35	0.24	
Intersection Summary									

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Dixon Ranch 3: Silva Valley Pkwy. & Green Valley Rd. Existing PM Peak

	٠	→	\rightarrow	•	←	1	†	ţ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	6	609	279	37	382	234	79	16	
v/c Ratio	0.04	0.70	0.33	0.20	0.39	0.55	0.18	0.10	
Control Delay	48.0	23.3	7.6	45.2	13.1	36.2	13.8	43.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	48.0	23.3	7.6	45.2	13.1	36.2	13.8	43.0	
Queue Length 50th (ft)	2	200	25	15	70	87	6	5	
Queue Length 95th (ft)	19	496	102	62	256	247	51	25	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	462	1430	1256	462	1445	895	861	648	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.01	0.43	0.22	0.08	0.26	0.26	0.09	0.02	
Intersection Summary									

Dixon Ranch

Existing PM Peak

17: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB Ramp

	€	•	•	1	†	ţ	4	
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	180	182	280	1197	1826	854	377	
v/c Ratio	1.03	1.04	1.30	0.78	0.62	0.75	0.59	
Control Delay	126.7	129.4	196.4	24.1	2.2	26.5	10.4	
Queue Delay	0.0	0.0	0.9	0.1	1.8	50.5	3.6	
Total Delay	126.7	129.4	197.3	24.2	3.9	77.1	14.0	
Queue Length 50th (ft)	~149	~152	~226	244	55	256	131	
Queue Length 95th (ft)	#271	#274	#360	234	61	#412	201	
Internal Link Dist (ft)		600			562	105		
Turn Bay Length (ft)	410		185	260				
Base Capacity (vph)	175	175	216	1940	2923	1144	641	
Starvation Cap Reductn	0	0	0	59	0	399	177	
Spillback Cap Reductn	0	0	13	0	873	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	
Reduced v/c Ratio	1.03	1.04	1.38	0.64	0.89	1.15	0.81	

Intersection Summary

Queue shown is maximum after two cycles.

Dixon Ranch 18: Latrobe Rd. & US-50 EB Ramp Existing PM Peak

	•	•	†	/	/	ţ
Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	823	1100	1983	774	225	775
v/c Ratio	0.62	0.68	0.58	0.66	0.49	0.25
Control Delay	13.1	2.4	11.1	8.5	12.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	2.4	11.1	8.5	12.0	0.1
Queue Length 50th (ft)	106	0	264	152	110	1
Queue Length 95th (ft)	172	0	304	270	m88	m1
Internal Link Dist (ft)			720			562
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	1593	1611	3404	1177	461	3054
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.68	0.58	0.66	0.49	0.25
Intersection Summary						
m Volume for 95th percer	ntile aueue i	is metere	d by upst	ream sigr	nal.	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Appendix C:

Analysis Worksheets for Existing (2013) plus Proposed Project Conditions

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Road Existing+PP AM Peak

1: Green Valley Rd./Green Valley Road & Francisco Rd.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1/1/	44	7	7	44	7	16.54	∱ 1≽		*	^	7
Volume (vph)	153	253	229	60	796	75	290	168	7	91	276	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3519		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3519		1770	1863	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.90	0.90	0.90	0.84	0.84	0.84	0.85	0.85	0.85
Adj. Flow (vph)	159	264	239	67	884	83	345	200	8	107	325	432
RTOR Reduction (vph)	0	0	158	0	0	56	0	4	0	0	0	130
Lane Group Flow (vph)	159	264	81	67	884	27	345	204	0	107	325	302
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	5.1	25.8	25.8	3.8	24.5	24.5	9.9	21.8		6.1	18.0	18.0
Effective Green, g (s)	5.1	25.8	25.8	3.8	24.5	24.5	9.9	21.8		6.1	18.0	18.0
Actuated g/C Ratio	0.07	0.34	0.34	0.05	0.32	0.32	0.13	0.29		0.08	0.24	0.24
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	231	1206	539	88	1145	512	448	1013		142	442	376
v/s Ratio Prot	c0.05	0.07		0.04	c0.25		c0.10	c0.06		0.06	0.17	
v/s Ratio Perm			0.05			0.02						c0.19
v/c Ratio	0.69	0.22	0.15	0.76	0.77	0.05	0.77	0.20		0.75	0.74	0.80
Uniform Delay, d1	34.5	17.8	17.3	35.5	23.1	17.6	31.8	20.4		34.1	26.6	27.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.3	0.1	0.1	31.5	3.3	0.0	8.0	0.1		20.0	6.3	11.7
Delay (s)	42.8	17.9	17.5	67.0	26.4	17.7	39.8	20.5		54.1	32.9	38.9
Level of Service	D	В	В	Ε	С	В	D	С		D	С	D
Approach Delay (s)		23.7			28.3			32.5			38.5	
Approach LOS		С			С			С			D	
Intersection Summary												
HCM 2000 Control Delay			30.9	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.75									
Actuated Cycle Length (s)			75.7		um of los				18.2			
Intersection Capacity Utiliz	ation		64.8%	IC	CU Level	of Service	9		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	ĵ.		٦	ĵ.		٦	ĵ.			ર્ન	*
Volume (vph)	23	302	17	157	805	53	36	63	60	108	229	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.93			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (prot)	1770	1848		1770	1845		1770	1726			1833	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (perm)	1770	1848		1770	1845		1770	1726			1833	1583
Peak-hour factor, PHF	0.84	0.84	0.84	0.89	0.89	0.89	0.66	0.66	0.66	0.80	0.80	0.80
Adj. Flow (vph)	27	360	20	176	904	60	55	95	91	135	286	199
RTOR Reduction (vph)	0	1	0	0	2	0	0	27	0	0	0	133
Lane Group Flow (vph)	27	379	0	176	962	0	55	159	0	0	421	66
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	4.5	45.3		14.6	55.4		17.3	17.3			23.2	23.2
Effective Green, g (s)	4.5	45.3		14.6	55.4		17.3	17.3			23.2	23.2
Actuated g/C Ratio	0.04	0.38		0.12	0.46		0.14	0.14			0.19	0.19
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
Lane Grp Cap (vph)	66	701		216	856		256	250			356	307
v/s Ratio Prot	0.02	0.20		c0.10	c0.52		0.03	c0.09			c0.23	
v/s Ratio Perm												0.04
v/c Ratio	0.41	0.54		0.81	1.12		0.21	0.64			1.18	0.22
Uniform Delay, d1	56.2	28.9		51.1	32.0		45.1	48.1			48.1	40.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.0	1.5		20.0	70.9		0.7	6.5			107.3	0.6
Delay (s)	59.1	30.4		71.1	102.9		45.8	54.6			155.4	41.1
Level of Service	Е	С		Е	F		D	D			F	D
Approach Delay (s)		32.3			98.0			52.6			118.7	
Approach LOS		С			F			D			F	
Intersection Summary												
HCM 2000 Control Delay			87.7	Н	ICM 2000	Level of	Service		F			
HCM 2000 Volume to Capa	acity ratio		1.05									
Actuated Cycle Length (s)	•		119.4	S	um of los	t time (s)			19.0			
Intersection Capacity Utiliza	ation		90.2%	IC	CU Level	of Service	:		Ε			

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Analysis Period (min)

c Critical Lane Group

c Critical Lane Group

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	^			ર્ન	ሻ	7
Volume (veh/h)	364	13	6	774	23	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.94	0.94	0.56	0.56
Hourly flow rate (vph)	400	14	6	823	41	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			414		1243	407
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			414		1243	407
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		79	98
cM capacity (veh/h)			1145		191	644
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	414	830	41	11		
Volume Left	0	6	41	0		
Volume Right	14	0	0	11		
cSH	1700	1145	191	644		
Volume to Capacity	0.24	0.01	0.21	0.02		
Queue Length 95th (ft)	0	0	20	1		
Control Delay (s)	0.0	0.2	28.9	10.7		
Lane LOS		Α	D	В		
Approach Delay (s)	0.0	0.2	25.1			
Approach LOS			D			
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utiliz	ation		55.5%	IC	U Level	of Service
Analysis Period (min)			15			2 2 30
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Dixon Ranch

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	T ₂		W	
Volume (veh/h)	0	370	780	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	402	848	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	848				1250	848
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	848				1250	848
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	790				191	361
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	402	848	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	790	1700	1700			
Volume to Capacity	0.00	0.50	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			Α			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			Α			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utiliz	ation		44.4%	IC	U Level o	of Service
Analysis Period (min)			15			

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	î»		W		
Volume (veh/h)	6	342	742	2	8	21	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.93	0.93	0.86	0.86	0.91	0.91	
Hourly flow rate (vph)	6	368	863	2	9	23	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	865				1245	864	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	865				1245	864	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.3	
p0 queue free %	99				95	93	
cM capacity (veh/h)	778				191	354	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	374	865	32				
Volume Left	6	0	9				
Volume Right	0	2	23				
cSH	778	1700	286				
Volume to Capacity	0.01	0.51	0.11				
Queue Length 95th (ft)	1	0	9				
Control Delay (s)	0.3	0.0	19.2				
Lane LOS	Α		С				
Approach Delay (s)	0.3	0.0	19.2				
Approach LOS			С				
Intersection Summary							
Average Delay			0.6				
Intersection Capacity Utilizat	ion		49.2%	IC	U Level	of Service	
Analysis Period (min)			15				

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Dixon Ranch 8: Silver Springs Pkwy & Green Valley Rd

Existing+PP	
AM Peak	

Lane Configurations ↑ Volume (veh/h) 590 0 0 7 Sign Control Free Fr Grade 0% 0 0 Grade 0% 0	773 Free 0%	0 Stop 0%	0 0.92
Volume (veh/h) 590 0 0 7 Sign Control Free Fr Grade 0% 0 0 Peak Hour Factor 0.92 0.92 0.92 0.92	773 Free 0% 0.92	Stop 0% 0.92	-
Sign Control Free Fr Grade 0% 0 Peak Hour Factor 0.92 0.92 0.92	Free 0% 0.92	Stop 0% 0.92	-
Grade 0% 0 Peak Hour Factor 0.92 0.92 0.92 0.92 0.92	0% 0.92	0% 0.92	n 92
Peak Hour Factor 0.92 0.92 0.92 0.	0.92	0.92	0.92
			0.92
	840	0	
Hourly flow rate (vph) 641 0 0 8			0
Pedestrians			
Lane Width (ft)			
Walking Speed (ft/s)			
Percent Blockage			
Right turn flare (veh)			
Median type None No	None		
Median storage veh)			
Upstream signal (ft)			
pX, platoon unblocked			
vC, conflicting volume 641		1482	641
vC1, stage 1 conf vol			
vC2, stage 2 conf vol			
vCu, unblocked vol 641		1482	641
tC, single (s) 4.1		6.4	6.2
tC, 2 stage (s)			
tF (s) 2.2		3.5	3.3
p0 queue free % 100		100	100
cM capacity (veh/h) 943		138	475
Direction, Lane # EB 1 WB 1			
Volume Total 641 840			
Volume Left 0 0			
Volume Right 0 0			
cSH 1700 1700			
Volume to Capacity 0.38 0.49			
Queue Length 95th (ft) 0 0			
Control Delay (s) 0.0 0.0			
Lane LOS			
Approach Delay (s) 0.0 0.0			
Approach LOS			
Intersection Summary			
Average Delay 0.0			
Intersection Capacity Utilization 44.0%	ICU	Level of S	Service
Analysis Period (min) 15			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Volume (veh/h)	7	309	2	4	514	6	12	0	10	21	0	28
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.87	0.87	0.87	0.69	0.69	0.69	0.72	0.72	0.72
Hourly flow rate (vph)	8	340	2	5	591	7	17	0	14	29	0	39
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	598			342			998	963	341	974	961	594
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	598			342			998	963	341	974	961	594
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			91	100	98	87	100	92
cM capacity (veh/h)	979			1217			203	253	702	224	253	505
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	349	602	32	68								
Volume Left	8	5	17	29								
Volume Right	2	7	14	39								
cSH	979	1217	300	329								
Volume to Capacity	0.01	0.00	0.11	0.21								
Queue Length 95th (ft)	1	0	9	19								
Control Delay (s)	0.3	0.1	18.4	18.8								
Lane LOS	Α	Α	С	С								
Approach Delay (s)	0.3	0.1	18.4	18.8								
Approach LOS			С	С								
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utiliza	ation		39.3%	IC	CU Level of	of Service			Α			
Analysis Period (min)			15									
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Movement

Lane Configurations Volume (vph) Ideal Flow (vphpl)

Total Lost time (s)

Lane Util. Factor

Satd. Flow (prot)

Satd. Flow (perm)

Peak-hour factor, PHF

Flt Protected

Flt Permitted

Frt

SBT

1900

4.0

1.00

0.93

0.98

1695

0.98

1695

0.50

1900

0.50

4

NBR

1900

4.0

1.00

0.85

1.00

1583

1.00

1583

0.64

1900

0.50

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	f)		7	₽		7	₽			4	
Volume (vph)	10	384	84	21	502	6	200	2	46	13	4	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.86			0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1812		1770	1859		1770	1597			1666	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1812		1770	1859		1770	1597			1666	
Peak-hour factor, PHF	0.68	0.68	0.68	0.77	0.77	0.77	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	15	565	124	27	652	8	253	3	58	16	5	51
RTOR Reduction (vph)	0	8	0	0	1	0	0	46	0	0	48	0
Lane Group Flow (vph)	15	681	0	27	659	0	253	15	0	0	24	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Actuated Green, G (s)	0.6	29.8		1.3	30.5		13.3	13.3			4.0	
Effective Green, g (s)	0.6	29.8		1.3	30.5		13.3	13.3			4.0	
Actuated g/C Ratio	0.01	0.46		0.02	0.47		0.21	0.21			0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	16	838		35	880		365	329			103	
v/s Ratio Prot	0.01	c0.38		c0.02	0.35		c0.14	0.01			c0.01	
v/s Ratio Perm												
v/c Ratio	0.94	0.81		0.77	0.75		0.69	0.05			0.23	
Uniform Delay, d1	31.9	14.9		31.4	13.8		23.7	20.5			28.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	191.7	6.0		67.0	3.5		5.6	0.1			1.2	
Delay (s)	223.6	20.9		98.4	17.4		29.3	20.5			29.9	
Level of Service	F	С		F	В		C	С			С	
Approach Delay (s)		25.3			20.6			27.6			29.9	
Approach LOS		С			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			24.0	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.73									
Actuated Cycle Length (s)	,		64.4	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliz	ation		51.2%			of Service	:		Α			
Analysis Period (min)			15									
c Critical Lane Group												

reak-noul factor, rife	0.01	0.01	0.01	0.70	0.70	0.70	0.04	0.04	0.04	0.50	0.50	0.50
Adj. Flow (vph)	7	693	267	209	764	7	298	5	91	2	0	2
RTOR Reduction (vph)	0	10	0	0	0	0	0	0	73	0	4	0
Lane Group Flow (vph)	7	950	0	209	771	0	0	303	18	0	0	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	0.7	56.3		14.0	69.6			21.0	21.0		1.0	
Effective Green, g (s)	0.7	56.3		14.0	69.6			21.0	21.0		1.0	
Actuated g/C Ratio	0.01	0.52		0.13	0.64			0.19	0.19		0.01	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	11	927		228	1195			344	306		15	
v/s Ratio Prot	0.00	c0.53		c0.12	0.41			c0.17			c0.00	
v/s Ratio Perm									0.01			
v/c Ratio	0.64	1.02		0.92	0.64			0.88	0.06		0.00	
Uniform Delay, d1	53.7	26.0		46.6	11.8			42.4	35.6		53.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	81.7	36.0		37.3	1.2			22.1	0.1		0.1	
Delay (s)	135.4	62.0		83.9	13.0			64.6	35.7		53.2	
Level of Service	F	E		F	В			Ε	D		D	
Approach Delay (s)		62.5			28.1			57.9			53.2	
Approach LOS		Е			С			Ε			D	
Intersection Summary												
HCM 2000 Control Delay			47.4	H	CM 2000	Level of S	Service		D			
HCM 2000 Volume to Capa	acity ratio		0.96									
Actuated Cycle Length (s)			108.3		um of lost				16.0			
Intersection Capacity Utiliza	ation		68.4%	IC	U Level o	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

WBL WBT

159

1900

4.0

1.00

1.00

0.95

1770

0.95

1770

0.76

581

1900

4.0

1.00

1.00

1.00

1860

1.00

1860

0.76

1900

0.76

1900

0.64

1900

4.0

1.00

1.00

0.95

1775

0.95

1775

0.64

423

1900

0.61

1900

4.0

1.00

0.96

1.00

1785

1.00

1785

0.61

1900

4.0

1.00

1.00

0.95

1770

0.95

1770

0.61

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11: Cameron Park Dr. & Green Valley Rd.

11. Callieloll Laik	Tr. Camelon Falk Dr. & Green Valley No.												
	٠	→	•	•	-	•	1	†	/	/	↓	4	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	7	f)		, J	ĥ		٦	ĵ.		, J	ĵ.		
Volume (vph)	22	148	273	112	250	4	262	15	71	9	63	23	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Frt	1.00	0.90		1.00	1.00		1.00	0.88		1.00	0.96		
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1681		1770	1858		1770	1632		1770	1788		
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1681		1770	1858		1770	1632		1770	1788		
Peak-hour factor, PHF	0.70	0.70	0.70	0.84	0.84	0.84	0.88	0.88	0.88	0.66	0.66	0.66	
Adj. Flow (vph)	31	211	390	133	298	5	298	17	81	14	95	35	
RTOR Reduction (vph)	0	76	0	0	1	0	0	55	0	0	18	0	
Lane Group Flow (vph)	31	525	0	133	302	0	298	43	0	14	112	0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA		
Protected Phases	7	4		3	8		5	2		1	6		
Permitted Phases													
Actuated Green, G (s)	1.9	26.9		7.1	32.1		14.5	24.3		0.7	10.5		
Effective Green, g (s)	1.9	26.9		7.1	32.1		14.5	24.3		0.7	10.5		
Actuated g/C Ratio	0.03	0.36		0.09	0.43		0.19	0.32		0.01	0.14		
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	44	602		167	795		342	528		16	250		
v/s Ratio Prot	0.02	c0.31		c0.08	0.16		c0.17	0.03		0.01	c0.06		
v/s Ratio Perm													
v/c Ratio	0.70	0.87		0.80	0.38		0.87	0.08		0.88	0.45		
Uniform Delay, d1	36.3	22.4		33.2	14.7		29.3	17.6		37.1	29.6		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Incremental Delay, d2	40.4	13.1		22.5	0.3		20.8	0.1		161.3	1.3		
Delay (s)	76.7	35.5		55.8	15.0		50.1	17.7		198.4	30.9		
Level of Service	E	D		E	В		D	В		F	C		
Approach Delay (s)	_	37.6		_	27.4			42.1			47.2		
Approach LOS		D			С			D			D		
Intersection Summary													
HCM 2000 Control Delay			36.8	Н	CM 2000	Level of	Service		D				
LICM 2000 Volume to Cond	ocity rotio		0.70										

Intersection Summary				
HCM 2000 Control Delay	36.8	HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio	0.79			
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	61.9%	ICU Level of Service	В	
Analysis Period (min)	15			
c Critical Lane Group				

Dixon Ranch 12: El Dorado Hills Blvd. & Francisco Dr. Existing+PP AM Peak

	•	→	•	•	←	•	4	†	/	/	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		Ĭ	î,		Ţ	f)	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	49	453	45	63	42	361	150	37	125	345	3
Peak Hour Factor	0.86	0.86	0.86	0.52	0.52	0.52	0.92	0.92	0.92	0.75	0.75	0.75
Hourly flow rate (vph)	2	57	527	87	121	81	392	163	40	167	460	4
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	586	288	392	203	167	464						
Volume Left (vph)	2	87	392	0	167	0						
Volume Right (vph)	527	81	0	40	0	4						
Hadj (s)	-0.50	-0.07	0.53	-0.10	0.53	0.03						
Departure Headway (s)	8.3	9.4	9.7	9.0	9.7	9.2						
Degree Utilization, x	1.36	0.75	1.05	0.51	0.45	1.18						
Capacity (veh/h)	441	378	377	386	359	397						
Control Delay (s)	199.6	35.9	92.6	19.9	19.1	133.1						
Approach Delay (s)	199.6	35.9	67.8		102.9							
Approach LOS	F	E	F		F							
Intersection Summary												
Delay			110.7									
Level of Service			F									
Intersection Capacity Utiliza	tion		90.7%	IC	U Level	of Service			Е			
Analysis Period (min)			15									

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	7	7	↑ ↑		ሻሻ	^		
Volume (vph)	399	147	344	328	265	907		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		
Lane Util. Factor	1.00	1.00	0.95		0.97	0.95		
Frt	1.00	0.85	0.93		1.00	1.00		
Flt Protected	0.95	1.00	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1583	3280		3433	3539		
Flt Permitted	0.95	1.00	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1583	3280		3433	3539		
Peak-hour factor, PHF	0.72	0.72	0.83	0.83	0.91	0.91		
Adj. Flow (vph)	554	204	414	395	291	997		
RTOR Reduction (vph)	0	127	293	0	0	0		
Lane Group Flow (vph)	554	77	516	0	291	997		
Turn Type	NA	Perm	NA		Prot	NA		
Protected Phases	8		2		1	6		
Permitted Phases		8						
Actuated Green, G (s)	18.6	18.6	12.7		6.1	22.8		
Effective Green, q (s)	18.6	18.6	12.7		6.1	22.8		
Actuated g/C Ratio	0.38	0.38	0.26		0.12	0.46		
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	666	596	843		423	1633		
v/s Ratio Prot	c0.31	0.0	0.16		0.08	c0.28		
v/s Ratio Perm	20101	0.05	2.10		2100			
v/c Ratio	0.83	0.13	0.61		0.69	0.61		
Uniform Delay, d1	14.0	10.1	16.2		20.7	10.0		
Progression Factor	1.00	1.00	1.00		1.00	1.00		
Incremental Delay, d2	8.7	0.1	1.3		4.6	0.7		
Delay (s)	22.7	10.2	17.5		25.4	10.7		
Level of Service	C	В	В		С	В		
Approach Delay (s)	19.3		17.5			14.0		
Approach LOS	В		В			В		
Intersection Summary	_							
HCM 2000 Control Delay			16.4	н	CM 2000	Level of Service	В	
HCM 2000 Control Delay HCM 2000 Volume to Cap	acity ratio		0.79	- "	OIVI 2000	FCACI OI DEI MICE	ь	
Actuated Cycle Length (s)	ucity ratio		49.4	9	um of los	t time (s)	12.0	
Intersection Capacity Utiliz	ation		59.7%			of Service	12.0 B	
Analysis Period (min)	audii		15	- 10	O LEVEL	OI JCI VICE	D	
c Critical Lane Group			13					
c Chilical Lane Group								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	, N	f)		, A	4		, A	^	7	J.	↑ }	
Volume (vph)	23	15	84	585	14	86	32	426	178	66	1496	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.87		1.00	0.96		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1626		1681	1644		1770	3539	1583	1770	3530	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1626		1681	1644		1770	3539	1583	1770	3530	
Peak-hour factor, PHF	0.73	0.73	0.73	0.79	0.79	0.79	0.82	0.82	0.82	0.88	0.88	0.88
Adj. Flow (vph)	32	21	115	741	18	109	39	520	217	75	1700	31
RTOR Reduction (vph)	0	39	0	0	11	0	0	0	0	0	1	0
Lane Group Flow (vph)	32	97	0	437	420	0	39	520	217	75	1730	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	6.0	6.0		29.7	29.7		3.2	53.5	110.0	6.6	56.9	
Effective Green, g (s)	6.0	6.0		29.7	29.7		3.2	53.5	110.0	6.6	56.9	
Actuated g/C Ratio	0.05	0.05		0.27	0.27		0.03	0.49	1.00	0.06	0.52	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	96	88		453	443		51	1721	1583	106	1825	
v/s Ratio Prot	0.02	c0.06		c0.26	0.26		c0.02	0.15		0.04	c0.49	
v/s Ratio Perm									0.14			
v/c Ratio	0.33	1.10		0.96	0.95		0.76	0.30	0.14	0.71	0.95	
Uniform Delay, d1	50.1	52.0		39.6	39.4		53.0	17.0	0.0	50.8	25.1	
Progression Factor	1.00	1.00		1.00	1.00		0.73	0.63	1.00	1.00	1.00	
Incremental Delay, d2	0.7	127.2		32.8	29.4		44.6	0.4	0.2	16.1	11.9	
Delay (s)	50.8	179.2		72.5	68.8		83.1	11.1	0.2	66.9	37.1	
Level of Service	D	F		Ε	Ε		F	В	Α	Ε	D	
Approach Delay (s)		154.7			70.6			11.7			38.3	
Approach LOS		F			Е			В			D	
Intersection Summary												
HCM 2000 Control Delay			45.7	Н	CM 2000	Level of S	Service		D			
HCM 2000 Volume to Capa	city ratio		0.96									
Actuated Cycle Length (s)			110.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utiliza	tion		82.4%	IC	U Level	of Service			Е			
Analysis Period (min)			15									
c Critical Lane Group												

3/14/2013 Kimley-Horn and Associates, Inc. Synchro 8 - Report Page 13 3/14/2013 Kimley-Horn and Associates, Inc.

ICU Level of Service

75.9%

15

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	1/4	7	ተተኈ		ሻ	ተተተ		
Volume (vph)	182	32	706	158	60	2022		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		
Lane Util. Factor	0.97	1.00	0.91		1.00	0.91		
Frt	1.00	0.85	0.97		1.00	1.00		
Flt Protected	0.95	1.00	1.00		0.95	1.00		
Satd. Flow (prot)	3433	1583	4945		1770	5085		
Flt Permitted	0.95	1.00	1.00		0.95	1.00		
Satd. Flow (perm)	3433	1583	4945		1770	5085		
Peak-hour factor, PHF	0.86	0.86	0.87	0.87	0.87	0.87		
Adj. Flow (vph)	212	37	811	182	69	2324		
RTOR Reduction (vph)	0	33	17	0	0	0		
Lane Group Flow (vph)	212	4	976	0	69	2324		
Turn Type	NA	Perm	NA		Prot	NA		
Protected Phases	8		2		1	6		
Permitted Phases		8						
Actuated Green, G (s)	11.4	11.4	78.5		7.3	90.3		
Effective Green, g (s)	10.9	10.9	80.3		6.8	91.1		
Actuated g/C Ratio	0.10	0.10	0.73		0.06	0.83		
Clearance Time (s)	3.5	3.5	5.8		3.5	4.8		
Vehicle Extension (s)	2.2	2.2	3.5		2.0	2.5		
Lane Grp Cap (vph)	340	156	3609		109	4211		
v/s Ratio Prot	c0.06		0.20		0.04	c0.46		
v/s Ratio Perm		0.00						
v/c Ratio	0.62	0.02	0.27		0.63	0.55		
Uniform Delay, d1	47.6	44.7	5.0		50.4	3.0		
Progression Factor	1.00	1.00	0.61		0.91	0.10		
Incremental Delay, d2	2.8	0.0	0.2		4.0	0.2		
Delay (s)	50.3	44.8	3.2		49.9	0.5		
Level of Service	D	D	Α		D	Α		
Approach Delay (s)	49.5		3.2			2.0		
Approach LOS	D		Α			Α		
Intersection Summary								
HCM 2000 Control Delay			5.6	Н	CM 2000	Level of Ser	vice A	
HCM 2000 Volume to Capa	acity ratio		0.58					
Actuated Cycle Length (s)			110.0	S	um of los	t time (s)	12.0	
Intersection Capacity Utiliz	ation		50.9%	IC	CU Level	of Service	А	
Analysis Period (min)			15					
c Critical Lane Group								

3/14/2013 Kimley-Horn and Associates, Inc.

Intersection Capacity Utilization

Analysis Period (min)

c Critical Lane Group

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3/14/2013 Kimley-Horn and Associates, Inc.

Dixon Ranch

16: El Dorado Hills Blvd. & Saratoga Wy. (South)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				, A	ર્ન	7	1/1	^			↑ β	7
Volume (vph)	0	0	0	611	Ö	253	469	654	0	0	903	1273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	0.91
Frt				1.00	1.00	0.85	1.00	1.00			0.94	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1681	1583	3433	3539			3187	1441
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1681	1583	3433	3539			3187	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.89	0.89	0.89	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	745	0	309	527	735	0	0	1050	1480
RTOR Reduction (vph)	0	0	0	0	0	221	0	0	0	0	83	295
Lane Group Flow (vph)	0	0	0	372	373	88	527	735	0	0	1663	489
Turn Type				Split	NA	Prot	Prot	NA			NA	Prot
Protected Phases				8	8	8	5	2			6	6
Permitted Phases				-	-	-	-	=			-	_
Actuated Green, G (s)				24.0	24.0	24.0	21.3	78.0			52.7	52.7
Effective Green, g (s)				24.0	24.0	24.0	21.3	78.0			52.7	52.7
Actuated g/C Ratio				0.22	0.22	0.22	0.19	0.71			0.48	0.48
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				366	366	345	664	2509			1526	690
v/s Ratio Prot				0.22	c0.22	0.06	c0.15	0.21			c0.52	0.34
v/s Ratio Perm				O.LL	OUILL	0.00	00110	O.L.I			00.02	0.01
v/c Ratio				1.02	1.02	0.25	0.79	0.29			1.09	0.71
Uniform Delay, d1				43.0	43.0	35.6	42.3	5.9			28.6	22.6
Progression Factor				1.00	1.00	1.00	1.14	0.85			0.71	0.51
Incremental Delay, d2				51.3	52.0	0.4	6.4	0.3			50.4	5.2
Delay (s)				94.3	95.0	36.0	54.5	5.3			70.8	16.8
Level of Service				F	F	D	D	A			E	В
Approach Delay (s)		0.0			77.4			25.8			54.0	
Approach LOS		Α			E			С			D	
Intersection Summary												
HCM 2000 Control Delay			51.8	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacity	ratio		1.01		_ 000	_5.0.01	_ 5					
Actuated Cycle Length (s)			110.0	S	um of los	time (s)			12.0			
Intersection Capacity Utilization			92.9%			of Service	,		F			
Analysis Period (min)			15		2 20.01							
c Critical Lane Group												
o ontical Earle Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			77			7		ተተተ	7	ሻ	1111	
Volume (vph)	0	0	1177	0	0	340	0	760	173	239	1290	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.83	0.83	0.83	0.80	0.80	0.80	0.93	0.93	0.93	0.82	0.82	0.82
Adj. Flow (vph)	0	0	1418	0	0	425	0	817	186	291	1573	0
RTOR Reduction (vph)	0	0	21	0	0	0	0	0	38	0	0	0
Lane Group Flow (vph)	0	0	1397	0	0	425	0	817	148	291	1573	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			58.8			110.0		81.0	81.0	21.0	64.2	
Effective Green, g (s)			58.8			110.0		81.0	81.0	21.0	64.2	
Actuated g/C Ratio			0.53			1.00		0.74	0.74	0.19	0.58	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			1591			1611		3744	1165	337	3739	
v/s Ratio Prot			c0.30					0.16		0.16	c0.25	
v/s Ratio Perm			0.20			0.26			0.09			
v/c Ratio			0.88			0.26		0.22	0.13	0.86	0.42	
Uniform Delay, d1			22.4			0.0		4.6	4.2	43.1	12.6	
Progression Factor			1.00			1.00		1.00	1.00	0.61	0.26	
Incremental Delay, d2			5.8			0.4		0.1	0.2	2.3	0.0	
Delay (s)			28.3			0.4		4.7	4.4	28.8	3.3	
Level of Service			С			Α		Α	Α	С	Α	
Approach Delay (s)		28.3			0.4			4.6			7.3	
Approach LOS		С			Α			Α			Α	
Intersection Summary												
HCM 2000 Control Delay			12.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capaci	ty ratio		0.71									
Actuated Cycle Length (s)	_		110.0	S	um of los	t time (s)			8.0			
Intersection Capacity Utilizati	on		66.5%	IC	CU Level	of Service	,		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 23: Harvard Way & Silva Valley Pkwy.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	∱ ∱		ሻ	∱ 1>		Ť	^	7	ሻ	ħβ	
Volume (vph)	114	95	83	247	329	437	134	211	101	157	297	157
deal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.93		1.00	0.91		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3291		1770	3236		1770	3539	1583	1770	3355	
FIt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3291		1770	3236		1770	3539	1583	1770	3355	
Peak-hour factor, PHF	0.79	0.79	0.79	0.89	0.89	0.89	0.63	0.63	0.63	0.76	0.76	0.76
Adj. Flow (vph)	144	120	105	278	370	491	213	335	160	207	391	207
RTOR Reduction (vph)	0	81	0	0	276	0	0	0	125	0	86	0
Lane Group Flow (vph)	144	144	0	278	585	0	213	335	35	207	512	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	8.2	16.1		11.2	19.1		8.2	15.5	15.5	9.2	16.5	
Effective Green, g (s)	8.2	16.1		11.2	19.1		8.2	15.5	15.5	9.2	16.5	
Actuated g/C Ratio	0.12	0.23		0.16	0.27		0.12	0.22	0.22	0.13	0.23	
Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	205	750		280	875		205	776	347	230	784	
//s Ratio Prot	0.08	0.04		c0.16	c0.18		c0.12	0.09		0.12	c0.15	
//s Ratio Perm									0.02			
v/c Ratio	0.70	0.19		0.99	0.67		1.04	0.43	0.10	0.90	0.65	
Uniform Delay, d1	30.0	22.0		29.7	22.9		31.2	23.8	22.0	30.2	24.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	10.4	0.1		51.6	1.9		73.5	0.4	0.1	33.8	2.0	
Delay (s)	40.4	22.1		81.2	24.9		104.7	24.1	22.1	64.0	26.4	
Level of Service	D	С		F	С		F	С	С	Е	С	
Approach Delay (s)		29.3			38.6			47.9			36.1	
Approach LOS		С			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			39.0	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capaci	ty ratio		0.80									
Actuated Cycle Length (s)			70.6	6 Sum of lost time (s)					18.6			
Intersection Capacity Utilization	on		65.6%	IC	CU Level	of Service	;		С			
Analysis Period (min)			15									
Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	↑	7	7	1>		7	ĵ.		Ť	↑	7
Volume (vph)	69	89	221	113	66	10	426	217	37	33	184	302
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1826		1770	1822		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1826		1770	1822		1770	1863	1583
Peak-hour factor, PHF	0.57	0.57	0.57	0.78	0.78	0.78	0.90	0.90	0.90	0.81	0.81	0.81
Adj. Flow (vph)	121	156	388	145	85	13	473	241	41	41	227	373
RTOR Reduction (vph)	0	0	321	0	8	0	0	7	0	0	0	294
Lane Group Flow (vph)	121	156	67	145	90	0	473	275	0	41	227	79
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	10.0	12.7	12.7	7.1	9.8		22.0	34.2		3.3	15.5	15.5
Effective Green, g (s)	10.0	12.7	12.7	7.1	9.8		22.0	34.2		3.3	15.5	15.5
Actuated g/C Ratio	0.14	0.17	0.17	0.10	0.13		0.30	0.47		0.05	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	241	322	274	171	244		531	850		79	393	334
v/s Ratio Prot	0.07	c0.08		c0.08	0.05		c0.27	0.15		0.02	c0.12	
v/s Ratio Perm			0.04									0.05
v/c Ratio	0.50	0.48	0.25	0.85	0.37		0.89	0.32		0.52	0.58	0.24
Uniform Delay, d1	29.3	27.3	26.2	32.6	28.9		24.5	12.3		34.2	26.0	24.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.6	1.2	0.5	30.3	0.9		16.9	0.2		5.7	2.1	0.4
Delay (s)	31.0	28.5	26.6	62.8	29.9		41.4	12.5		39.9	28.0	24.4
Level of Service	С	С	С	E	С		D	В		D	С	С
Approach Delay (s)		27.9			49.6			30.6			26.6	
Approach LOS		С			D			С			С	
Intersection Summary												
HCM 2000 Control Delay			30.7	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capac	city ratio		0.71									
Actuated Cycle Length (s)	,		73.3	S	um of los	t time (s)			16.0			
Intersection Capacity Utilizat	tion		56.4%	IC	CU Level	of Service			В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	35	1	83	154	2	62	20	195	41	23	240	19
Peak Hour Factor	0.68	0.68	0.68	0.70	0.70	0.70	0.63	0.63	0.63	0.69	0.69	0.69
Hourly flow rate (vph)	51	1	122	220	3	89	32	310	65	33	348	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	175	311	406	409								
Volume Left (vph)	51	220	32	33								
Volume Right (vph)	122	89	65	28								
Hadj (s)	-0.33	0.00	-0.05	0.01								
Departure Headway (s)	7.4	7.2	6.7	6.8								
Degree Utilization, x	0.36	0.62	0.76	0.77								
Capacity (veh/h)	402	454	503	505								
Control Delay (s)	14.5	21.3	27.8	28.7								
Approach Delay (s)	14.5	21.3	27.8	28.7								
Approach LOS	В	С	D	D								
Intersection Summary												
Delay			24.7									
Level of Service			С									
Intersection Capacity Utiliza	tion		45.6%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			<u> </u>		7
Volume (veh/h)	311	39	0	744	0	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	338	42	0	809	0	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				806		
pX, platoon unblocked					0.79	
vC, conflicting volume			380		1168	359
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			380		1079	359
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			1178		191	685
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	380	809	23			
Volume Left	0	009	0			
Volume Right	42	0	23			
cSH	1700	1700	685			
Volume to Capacity	0.22	0.48	0.03			
Queue Length 95th (ft)	0.22	0.40	3			
Control Delay (s)	0.0	0.0	10.4			
Lane LOS	0.0	0.0	10.4 B			
Approach Delay (s)	0.0	0.0	10.4			
Approach LOS	0.0	0.0	10.4 B			
**			ь			
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization	ation		42.5%	IC	U Level	of Service
Analysis Period (min)			15			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	2	21	0	11	0	74	20	0	0	8	27
Peak Hour Factor	0.61	0.61	0.61	0.69	0.69	0.69	0.71	0.71	0.71	0.63	0.63	0.63
Hourly flow rate (vph)	7	3	34	0	16	0	104	28	0	0	13	43
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	44	16	132	56								
Volume Left (vph)	7	0	104	0								
Volume Right (vph)	34	0	0	43								
Hadj (s)	-0.40	0.03	0.19	-0.43								
Departure Headway (s)	3.9	4.4	4.3	3.7								
Degree Utilization, x	0.05	0.02	0.16	0.06								
Capacity (veh/h)	871	781	822	939								
Control Delay (s)	7.1	7.5	8.1	7.0								
Approach Delay (s)	7.1	7.5	8.1	7.0								
Approach LOS	Α	Α	Α	Α								
Intersection Summary												
Delay			7.6									
Level of Service			Α									
Intersection Capacity Utilizati	on		23.7%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	î»		7	1>			र्स	7		4	
Volume (vph)	0	293	39	23	530	0	214	0	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0			
Lane Util. Factor		1.00		1.00	1.00			1.00	1.00			
Frt		0.98		1.00	1.00			1.00	0.85			
Flt Protected		1.00		0.95	1.00			0.95	1.00			
Satd. Flow (prot)		1830		1770	1863			1770	1583			
Flt Permitted		1.00		0.54	1.00			0.76	1.00			
Satd. Flow (perm)		1830		1002	1863			1410	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	318	42	25	576	0	233	0	47	0	0	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	36	0	0	0
Lane Group Flow (vph)	0	351	0	25	576	0	0	233	11	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4		4	8		
Actuated Green, G (s)		21.2		21.2	21.2			9.3	9.3			
Effective Green, g (s)		21.2		21.2	21.2			9.3	9.3			
Actuated g/C Ratio		0.55		0.55	0.55			0.24	0.24			
Clearance Time (s)		4.0		4.0	4.0			4.0	4.0			
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0			
Lane Grp Cap (vph)		1007		551	1025			340	382			
v/s Ratio Prot		0.19			c0.31							
v/s Ratio Perm				0.02				c0.17	0.01			
v/c Ratio		0.35		0.05	0.56			0.69	0.03			
Uniform Delay, d1		4.8		4.0	5.6			13.3	11.2			
Progression Factor		1.00		1.00	1.00			1.00	1.00			
Incremental Delay, d2		0.2		0.0	0.7			5.6	0.0			
Delay (s)		5.0		4.0	6.3			18.9	11.2			
Level of Service		Α		Α	Α			В	В			
Approach Delay (s)		5.0			6.2			17.6			0.0	
Approach LOS		Α			Α			В			Α	
Intersection Summary												
HCM 2000 Control Delay			8.5	Н	CM 2000	Level of	Service		Α			
HCM 2000 Volume to Capacity	ratio		0.60									
Actuated Cycle Length (s)			38.5		um of los				8.0			
Intersection Capacity Utilization	n		46.4%	IC	CU Level	of Service	9		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	أبوايو	44	54,	Jac.	44	7*	34 34	† 1»		14	4	ř
Volume (vph)	418	795	314	141	496	67	308	248	17	105	205	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3506		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3506		1770	1863	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.89	0.89	0.89	0.84	0.84	0.84	0.90	0.90	0.90
Adj. Flow (vph)	449	855	338	158	557	75	367	295	20	117	228	222
RTOR Reduction (vph)	0	0	227	0	0	51	0	7	0	0	0	177
Lane Group Flow (vph)	449	855	111	158	557	24	367	308	0	117	228	45
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	7.1	23.2	23.2	6.1	22.2	22.2	9.1	19.2		4.1	14.2	14.2
Effective Green, g (s)	7.1	23.2	23.2	6.1	22.2	22.2	9.1	19.2		4.1	14.2	14.2
Actuated g/C Ratio	0.10	0.33	0.33	0.09	0.31	0.31	0.13	0.27		0.06	0.20	0.20
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	344	1159	518	152	1109	496	441	950		102	373	317
v/s Ratio Prot	c0.13	c0.24		0.09	0.16		c0.11	0.09		c0.07	c0.12	
v/s Ratio Perm			0.07			0.01						0.03
v/c Ratio	1.31	0.74	0.21	1.04	0.50	0.05	0.83	0.32		1.15	0.61	0.14
Uniform Delay, d1	31.8	21.1	17.2	32.4	19.8	16.9	30.1	20.6		33.4	25.8	23.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	156.9	2.5	0.2	83.8	0.4	0.0	12.6	0.2		134.1	3.0	0.2
Delay (s)	188.8	23.6	17.4	116.2	20.2	17.0	42.7	20.8		167.5	28.7	23.5
Level of Service	F	С	В	F	С	В	D	С		F	С	С
Approach Delay (s)		67.5			39.1			32.6			55.3	
Approach LOS		Е			D			С			Е	
Intersection Summary												
HCM 2000 Control Delay			53.1	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	acity ratio		0.81									
Actuated Cycle Length (s)			70.8	S	um of los	t time (s)			18.2			
Intersection Capacity Utiliza	ation		64.5%	IC	U Level	of Service	•		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	To.		Jal.	To-		,ht	10			4	#
Volume (vph)	114	864	24	93	523	81	55	153	163	55	70	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.92			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (prot)	1770	1855		1770	1825		1770	1719			1823	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (perm)	1770	1855		1770	1825		1770	1719			1823	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.84	0.84	0.84	0.84	0.84	0.84	0.89	0.89	0.89
Adj. Flow (vph)	123	929	26	111	623	96	65	182	194	62	79	106
RTOR Reduction (vph)	0	1	0	0	4	0	0	27	0	0	0	93
Lane Group Flow (vph)	123	954	0	111	715	0	65	349	0	0	141	13
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	11.4	67.5		9.3	65.4		27.2	27.2			17.1	17.1
Effective Green, g (s)	11.4	67.5		9.3	65.4		27.2	27.2			17.1	17.1
Actuated g/C Ratio	0.08	0.48		0.07	0.47		0.19	0.19			0.12	0.12
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
Lane Grp Cap (vph)	144	893		117	851		343	333			222	193
v/s Ratio Prot	c0.07	c0.51		0.06	0.39		0.04	c0.20			c0.08	
v/s Ratio Perm												0.01
v/c Ratio	0.85	1.07		0.95	0.84		0.19	1.05			0.64	0.07
Uniform Delay, d1	63.5	36.3		65.2	32.8		47.2	56.4			58.5	54.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	35.6	50.3		66.4	8.3		0.5	62.8			7.2	0.3
Delay (s)	99.1	86.6		131.5	41.0		47.7	119.3			65.8	54.7
Level of Service	F	F		F	D		D	F			Е	D
Approach Delay (s)		88.0			53.2			108.7			61.0	
Approach LOS		F			D			F			Е	
Intersection Summary												
HCM 2000 Control Delay			77.8	H	CM 2000	Level of S	Service		Е			
HCM 2000 Volume to Capa	acity ratio		0.99									
Actuated Cycle Length (s)			140.1			t time (s)			19.0			
Intersection Capacity Utiliz	ation		93.1%	IC	U Level	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	75	ተ	54,	JA.	7.		140	D			4	
Volume (vph)	6	804	268	43	479	3	211	15	71	2	7	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
ane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.88			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1863	1583	1770	1861		1770	1633			1799	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1863	1583	1770	1861		1770	1633			1799	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.90	0.90	0.90	0.69	0.69	0.69
Adj. Flow (vph)	6	838	279	47	521	3	234	17	79	3	10	3
RTOR Reduction (vph)	0	0	54	0	0	0	0	65	0	0	3	C
ane Group Flow (vph)	6	838	225	47	524	0	234	31	0	0	13	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6									
Actuated Green, G (s)	1.1	59.9	59.9	6.4	65.2		18.0	18.0			2.4	
Effective Green, g (s)	1.1	59.9	59.9	6.4	65.2		18.0	18.0			2.4	
Actuated g/C Ratio	0.01	0.57	0.57	0.06	0.62		0.17	0.17			0.02	
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Vehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
Lane Grp Cap (vph)	18	1062	903	107	1155		303	279			41	
v/s Ratio Prot	0.00	c0.45		c0.03	0.28		c0.13	0.02			c0.01	
v/s Ratio Perm			0.14									
v/c Ratio	0.33	0.79	0.25	0.44	0.45		0.77	0.11			0.32	
Jniform Delay, d1	51.6	17.6	11.3	47.6	10.5		41.5	36.7			50.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	7.8	4.0	0.1	2.1	0.3		11.1	0.1			3.3	
Delay (s)	59.4	21.6	11.4	49.7	10.8		52.7	36.9			53.7	
Level of Service	Е	С	В	D	В		D	D			D	
Approach Delay (s)		19.3			14.0			48.1			53.7	
Approach LOS		В			В			D			D	
Intersection Summary												
HCM 2000 Control Delay			22.7	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capac	ity ratio		0.75									
Actuated Cycle Length (s)			105.0	Sı	um of lost	time (s)			18.3			
Intersection Capacity Utilizat	ion		69.3%			of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	To a			ৰ	16	严	
Volume (veh/h)	875	27	4	496	21	4	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.91	0.91	0.82	0.82	0.78	0.78	
Hourly flow rate (vph)	962	30	5	605	27	5	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			991		1591	976	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			991		1591	976	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		77	98	
cM capacity (veh/h)			698		117	305	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2			
Volume Total	991	610	27	5			
Volume Left	0	5	27	0			
Volume Right	30	0	0	5			
cSH	1700	698	117	305			
Volume to Capacity	0.58	0.01	0.23	0.02			
Queue Length 95th (ft)	0.30	1	21	1			
Control Delay (s)	0.0	0.2	44.6	17.0			
Lane LOS	0.0	0.2 A	44.0 E	17.0 C			
Approach Delay (s)	0.0	0.2	40.2	U			
Approach LOS	0.0	0.2	40.2 E				
Intersection Summary							
Average Delay			0.9				
Intersection Capacity Utili	zation		57.7%	IC	U Level	of Service	В
Analysis Period (min)			15				

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Movement Lane Configurations Volume (veh/h)

Sign Control

Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type

Peak Hour Factor Hourly flow rate (vph)

Median storage veh) Upstream signal (ft) pX, platoon unblocked vC, conflicting volume

vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol

tC, single (s) tC, 2 stage (s)

p0 queue free %

cM capacity (veh/h)

Volume to Capacity Queue Length 95th (ft)

Control Delay (s)

Approach LOS

Intersection Summary Average Delay

Analysis Period (min)

Intersection Capacity Utilization

Lane LOS Approach Delay (s)

Direction, Lane #

Volume Total

Volume Left Volume Right

cSH

tF (s)

Grade

0.92

Stop

0%

0.92

1499

1499

6.4

3.5

100

135

ICU Level of Service

0.92

543

543

6.2

3.3

100

539

500

Free

0%

0.92

543

879

Free

0%

0.92

None None

0.92

0 955

543

543

4.1

2.2

100

1025

955

1025

0.00

0

0.0 0.0

0.0

EB1 WB1

543

1700

0.32

0.0

0

SB 1

0

0

1700

0.00

0

0.0

0.0

Α

0.0

15

49.6%

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	P		sha		
Volume (veh/h)	12	872	492	5	10	14	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.91	0.91	0.87	0.87	0.75	0.75	
Hourly flow rate (vph)	13	958	566	6	13	19	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	571				1553	568	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	571				1553	568	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.3	
p0 queue free %	99				89	96	
cM capacity (veh/h)	1001				123	522	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	971	571	32				
Volume Left	13	0	13				
Volume Right	0	6	19				
cSH	1001	1700	222				
Volume to Capacity	0.01	0.34	0.14				
Queue Length 95th (ft)	1	0	12				
Control Delay (s)	0.4	0.0	23.9				
Lane LOS	Α		С				
Approach Delay (s)	0.4	0.0	23.9				
Approach LOS			С				
Intersection Summary							
Average Delay			0.7				
Intersection Capacity Utiliz	ation		65.5%	IC	U Level	of Service	
Analysis Period (min)			15				

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PM Peak

Synchro 8 - Report

Page 7

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		4			4			4			44	
Volume (veh/h)	45	633	18	16	409	7	8	1	11	7	0	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.71	0.71	0.71	0.53	0.53	0.53
Hourly flow rate (vph)	49	696	20	18	449	8	11	1	15	13	0	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	457			715			1319	1297	705	1309	1303	453
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	457			715			1319	1297	705	1309	1303	453
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			98			91	99	96	89	100	96
cM capacity (veh/h)	1104			885			122	152	436	124	150	607
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	765	475	28	40								
Volume Left	49	18	11	13								
Volume Right	20	8	15	26								
cSH	1104	885	205	264								
Volume to Capacity	0.04	0.02	0.14	0.15								
Queue Length 95th (ft)	4	2	12	13								
Control Delay (s)	1.2	0.6	25.3	21.0								
Lane LOS	Α	Α	D	С								
Approach Delay (s)	1.2	0.6	25.3	21.0								
Approach LOS			D	С								
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization	ation		62.6%	IC	U Level	of Service			В			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	4			4		
Volume (veh/h)	706	0	0	440	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	767	0	0	478	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			767		1246	767
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			767		1246	767
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			846		192	402
Direction, Lane #	EB 1	WB 1				
Volume Total	767	478				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1700				
Volume to Capacity	0.45	0.28				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utiliz	zation		40.5%	IC	U Level	of Service
Analysis Period (min)			15			
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5/7/2013 Kimley-Horn and Associates, Inc. 5/7/2013 Kimley-Horn and Associates, Inc.

Dixon Ranch
10: Cambridge Rd. & Green Valley Rd.

Existing+PP
PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3,2	T.		Jal.	7.			4	ř ^e		4	
Volume (vph)	2	583	121	110	357	8	72	6	177	15	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.97		1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Satd. Flow (prot)	1770	1815		1770	1857			1780	1583		1736	
Flt Permitted	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Satd. Flow (perm)	1770	1815		1770	1857			1780	1583		1736	
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.62	0.62	0.62
Adj. Flow (vph)	2	634	132	125	406	9	86	7	211	24	10	18
RTOR Reduction (vph)	0	7	0	0	1	0	0	0	186	0	17	0
Lane Group Flow (vph)	2	759	0	125	414	0	0	93	25	0	35	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	0.7	38.9		7.1	45.3			9.1	9.1		4.5	
Effective Green, g (s)	0.7	38.9		7.1	45.3			9.1	9.1		4.5	
Actuated g/C Ratio	0.01	0.51		0.09	0.60			0.12	0.12		0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	16	933		166	1112			214	190		103	
v/s Ratio Prot	0.00	c0.42		c0.07	0.22			c0.05			c0.02	
v/s Ratio Perm									0.02			
v/c Ratio	0.12	0.81		0.75	0.37			0.43	0.13		0.34	
Uniform Delay, d1	37.1	15.3		33.4	7.8			30.9	29.7		34.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	3.5	5.5		17.4	0.2			1.4	0.3		2.0	
Delay (s)	40.7	20.8		50.8	8.0			32.3	30.0		36.1	
Level of Service	D	С		D	Α			С	С		D	
Approach Delay (s)		20.9			17.9			30.7			36.1	
Approach LOS		С			В			С			D	
Intersection Summary												
HCM 2000 Control Delay			22.2	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capaci	ity ratio		0.71									
Actuated Cycle Length (s)			75.6		um of los				16.0			
Intersection Capacity Utilizati	on		62.6%	IC	U Level	of Service			В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J,	T.		Jal.	To-		Jal.	10			44	
Volume (vph)	24	598	147	43	357	8	107	4	69	7	4	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.86			0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1808		1770	1857		1770	1598			1705	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1808		1770	1857		1770	1598			1705	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.93	0.93	0.93	0.58	0.58	0.58
Adj. Flow (vph)	27	672	165	48	401	9	115	4	74	12	7	21
RTOR Reduction (vph)	0	7	0	0	1	0	0	66	0	0	20	0
Lane Group Flow (vph)	27	830	0	48	409	0	115	12	0	0	20	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Actuated Green, G (s)	1.7	41.3		2.0	41.6		8.1	8.1			3.8	
Effective Green, g (s)	1.7	41.3		2.0	41.6		8.1	8.1			3.8	
Actuated g/C Ratio	0.02	0.58		0.03	0.58		0.11	0.11			0.05	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	42	1048		49	1084		201	181			90	
v/s Ratio Prot	0.02	c0.46		c0.03	0.22		c0.06	0.01			c0.01	
v/s Ratio Perm												
v/c Ratio	0.64	0.79		0.98	0.38		0.57	0.07			0.22	
Uniform Delay, d1	34.4	11.6		34.6	7.9		29.9	28.2			32.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	29.0	4.2		119.7	0.2		3.9	0.2			1.3	
Delay (s)	63.5	15.8		154.2	8.1		33.8	28.3			33.5	
Level of Service	Е	В		F	Α		С	С			С	
Approach Delay (s)		17.3			23.4			31.6			33.5	
Approach LOS		В			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			21.3	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.73									
Actuated Cycle Length (s)			71.2	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	tion		59.7%	IC	U Level	of Service)		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 12: El Dorado

Dixon Ranch 12: El Dorado Hills	Blvd. 8	Franc	cisco D	r.						E	xisting Pl	j+PP M Peak
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		,te	130		1	1>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	41	449	26	35	40	504	387	19	9	219	2
Peak Hour Factor	0.89	0.89	0.89	0.60	0.60	0.60	0.94	0.94	0.94	0.84	0.84	0.84
Hourly flow rate (vph)	0	46	504	43	58	67	536	412	20	11	261	2
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	551	168	536	432	11	263						
Volume Left (vph)	0	43	536	0	11	0						
Volume Right (vph)	504	67	0	20	0	2						
Hadj (s)	-0.52	-0.15	0.53	0.00	0.53	0.03						
Departure Headway (s)	6.8	8.3	8.3	7.8	9.0	8.5						
Degree Utilization, x	1.03	0.39	1.24	0.94	0.03	0.62						
Capacity (veh/h)	526	406	439	454	389	409						
Control Delay (s)	73.7	16.6	151.0	54.1	11.1	23.3						
Approach Delay (s)	73.7	16.6	107.8		22.9							
Approach LOS	F	С	F		С							
Intersection Summary												
Delay			78.5									
Level of Service			F									
Intersection Capacity Utiliza	ation		79.5%	IC	U Level	of Service			D			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	To.		Jac.	7.		Jal.	120		7	1	
Volume (vph)	78	287	267	83	162	15	238	112	130	28	83	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.93		1.00	0.99		1.00	0.92		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1728		1770	1839		1770	1712		1770	1816	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1728		1770	1839		1770	1712		1770	1816	
Peak-hour factor, PHF	0.93	0.93	0.93	0.89	0.89	0.89	0.88	0.88	0.88	0.84	0.84	0.84
Adj. Flow (vph)	84	309	287	93	182	17	270	127	148	33	99	20
RTOR Reduction (vph)	0	41	0	0	4	0	0	59	0	0	11	0
Lane Group Flow (vph)	84	555	0	93	195	0	270	216	0	33	108	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	6.2	24.4		3.7	21.9		12.4	19.6		1.8	9.0	
Effective Green, q (s)	6.2	24.4		3.7	21.9		12.4	19.6		1.8	9.0	
Actuated g/C Ratio	0.09	0.37		0.06	0.33		0.19	0.30		0.03	0.14	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	167	643		99	614		335	512		48	249	
v/s Ratio Prot	0.05	c0.32		c0.05	0.11		c0.15	c0.13		0.02	0.06	
v/s Ratio Perm												
v/c Ratio	0.50	0.86		0.94	0.32		0.81	0.42		0.69	0.43	
Uniform Delay, d1	28.2	19.0		30.8	16.2		25.4	18.4		31.6	25.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.4	11.5		70.1	0.3		13.2	0.6		33.8	1.2	
Delay (s)	30.6	30.5		100.9	16.5		38.6	19.0		65.4	27.1	
Level of Service	С	С		F	В		D	В		Е	С	
Approach Delay (s)		30.5			43.4			28.7			35.4	
Approach LOS		С			D			С			D	
Intersection Summary												
HCM 2000 Control Delay			32.6	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capac	city ratio		0.79									
Actuated Cycle Length (s)			65.5		um of los				16.0			
Intersection Capacity Utilizat	tion		67.9%	IC	CU Level	of Service	:		С			
Analysis Period (min)			15									
c Critical Lane Group												

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•	•	†	1	-	↓		
WBL	WBR	NBT	NBR	SBL	SBT		
75	il.	1 10		44			
141	125	950	184	162	602		
1900	1900	1900	1900	1900	1900		
4.0	4.0	4.0		4.0	4.0		
1.00	1.00	0.95		0.97	0.95		
1.00	0.85	0.98		1.00	1.00		
0.95	1.00	1.00		0.95	1.00		
1770	1583	3453		3433	3539		
0.95	1.00	1.00		0.95	1.00		
1770	1583	3453		3433	3539		
0.84	0.84	0.94	0.94	0.87	0.87		
168	149	1011	196	186	692		
0	124	24	0	0	0		
168	25	1183	0	186	692		
NA	Perm	NA		Prot	NA		
8		2		1	6		
	8						
7.9	7.9	23.9		3.7	31.6		
7.9	7.9	23.9		3.7	31.6		
0.17	0.17	0.50		0.08	0.67		
4.0	4.0	4.0		4.0	4.0		
3.0	3.0	3.0		3.0	3.0		
294	263	1737		267	2354		
c0.09		c0.34		c0.05	0.20		
	0.02						
0.57	0.09	0.68		0.70	0.29		
18.2	16.8	8.9		21.4	3.3		
		1.00		1.00	1.00		
2.7	0.2	1.1		7.7	0.1		
20.9	16.9	10.0		29.0	3.4		
C	В	В		C	A		
19.0		10.0			8.8		
В		В			A		
		10.8	Н	CM 2000	Level of Service	e B	
ity ratio				J.II 2000	20.0101001010		
nty rutio			S	um of lost	time (s)	12.0	
ion							
			- 10	LOTOI	3. 3311100	- 1	
	141 1900 4.0 1.00 1.00 0.95 1770 0.84 168 NA 8 7.9 0.17 4.0 294 c0.09 0.57 18.2 1.00 2.7 20.7	141 125 1900 1900 4.0 4.0 1.00 1.00 1.00 0.85 0.95 1.00 1770 1583 0.95 1.00 1770 1583 0.84 0.84 168 149 0 124 168 25 NA Perm 8 7.9 7.9 7.9 7.9 0.17 0.17 4.0 4.0 3.0 3.0 294 263 c0.09 0.02 0.57 0.09 18.2 16.8 1.00 1.00 2.7 0.2 20.9 16.9 19.0 B	141 125 950 1900 1900 1900 1900 4.0 4.0 4.0 1.00 0.85 0.98 0.95 1.00 1.00 1770 1583 3453 0.95 1.00 1.00 1770 1583 3453 0.84 0.84 0.94 168 149 1011 0 124 24 168 25 1183 NA Perm NA 8 2 7.9 7.9 23.9 7.9 7.9 23.9 7.9 7.9 23.9 0.17 0.17 0.50 4.0 4.0 4.0 3.0 3.0 3.0 294 263 1737 c0.09 c0.34 0.02 0.57 0.09 0.68 18.2 16.8 8.9 1.00 1.00 1.00 2.7 0.2 1.1 20.9 16.9 10.0 B B 19.0 B ity ratio 0.66 47.5	141 125 950 184 1900 1900 1900 1900 1,00 1,00 0,95 1,00 0,85 0,98 0,95 1,00 1,00 1,770 1583 3453 0,95 1,00 1,00 1,770 1583 3453 0,95 1,00 1,00 1,770 1583 3453 0,84 0,84 0,94 0,94 168 149 1011 196 0 124 24 0 168 25 1183 0 NA Perm NA 8 2 8 7.9 7.9 23,9 7.9 7.9 23,9 7.9 7.9 23,9 0,17 0,17 0,50 4,0 4,0 4,0 3,0 3,0 3,0 294 263 1737 c0,09 c0,34 0,02 0,57 0,09 0,68 18.2 16.8 8,9 1,00 1,00 1,00 2,7 0,2 1,1 20,9 16,9 10,0 B B B 10.8 H ity ratio 0,666 47,5 S ion 54,6% IC	1	1	1

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	To.		Jal.	4		14	44	ř.	1	1	
Volume (vph)	25	18	46	283	33	18	120	1347	550	24	808	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.89		1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1661		1681	1682		1770	3539	1583	1770	3511	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1661		1681	1682		1770	3539	1583	1770	3511	
Peak-hour factor, PHF	0.74	0.74	0.74	0.86	0.86	0.86	0.94	0.94	0.94	0.93	0.93	0.93
Adj. Flow (vph)	34	24	62	329	38	21	128	1433	585	26	869	49
RTOR Reduction (vph)	0	60	0	0	4	0	0	0	0	0	3	0
Lane Group Flow (vph)	34	26	0	194	190	0	128	1433	585	26	915	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	4.1	4.1		16.1	16.1		14.2	77.3	115.0	3.3	66.4	
Effective Green, g (s)	4.1	4.1		16.1	16.1		14.2	77.3	115.0	3.3	66.4	
Actuated g/C Ratio	0.04	0.04		0.14	0.14		0.12	0.67	1.00	0.03	0.58	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	63	59		235	235		218	2378	1583	50	2027	
v/s Ratio Prot	0.02	0.02		c0.12	0.11		0.07	c0.40		0.01	0.26	
v/s Ratio Perm									c0.37			
v/c Ratio	0.54	0.44		0.83	0.81		0.59	0.60	0.37	0.52	0.45	
Uniform Delay, d1	54.5	54.3		48.1	47.9		47.6	10.4	0.0	55.1	13.9	
Progression Factor	1.00	1.00		1.00	1.00		0.65	0.26	1.00	1.00	1.00	
Incremental Delay, d2	4.4	1.9		19.6	17.1		2.1	0.9	0.5	4.4	0.7	
Delay (s)	58.9	56.3		67.7	65.1		33.2	3.7	0.5	59.5	14.6	
Level of Service	Е	Е		Е	Е		С	Α	Α	Е	В	
Approach Delay (s)		57.0			66.4			4.6			15.9	
Approach LOS		Е			Е			Α			В	
Intersection Summary												
HCM 2000 Control Delay			15.9	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capa	city ratio		0.64									
Actuated Cycle Length (s)			115.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utiliza	ation		67.5%	IC	U Level	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	74	,tel	14		140	441		1	41	
Volume (vph)	31	19	75	43	11	304	94	1652	77	158	899	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.91		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.86		1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1681	1748	1583	1770	1593		1770	5051		1770	3523	
Flt Permitted	0.95	0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1681	1748	1583	1770	1593		1770	5051		1770	3523	
Peak-hour factor, PHF	0.89	0.89	0.89	0.91	0.91	0.91	0.88	0.88	0.88	0.98	0.98	0.98
Adj. Flow (vph)	35	21	84	47	12	334	107	1877	88	161	917	28
RTOR Reduction (vph)	0	0	81	0	310	0	0	3	0	0	1	0
Lane Group Flow (vph)	28	28	3	47	36	0	107	1962	0	161	944	0
Turn Type	Split	NA	Prot	Split	NA		Prot	NA		Prot	NA	
Protected Phases	7	7	7	8	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	4.6	4.6	4.6	8.1	8.1		7.7	70.9		13.7	76.9	
Effective Green, g (s)	4.6	4.6	4.6	8.1	8.1		7.7	72.6		13.7	78.6	
Actuated g/C Ratio	0.04	0.04	0.04	0.07	0.07		0.07	0.63		0.12	0.68	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.7		4.0	5.7	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	4.2		0.2	4.2	
Lane Grp Cap (vph)	67	69	63	124	112		118	3188		210	2407	
v/s Ratio Prot	c0.02	0.02	0.00	c0.03	0.02		0.06	c0.39		c0.09	0.27	
v/s Ratio Perm												
v/c Ratio	0.42	0.41	0.05	0.38	0.32		0.91	0.62		0.77	0.39	
Uniform Delay, d1	53.9	53.9	53.1	51.0	50.8		53.3	12.8		49.1	7.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.79	0.96		0.91	0.35	
Incremental Delay, d2	1.5	1.4	0.1	0.7	0.6		46.1	0.7		12.7	0.4	
Delay (s)	55.4	55.3	53.2	51.8	51.4		88.0	13.0		57.6	3.2	
Level of Service	E	Е	D	D	D		F	В		Е	Α	
Approach Delay (s)		54.1			51.5			16.9			11.1	
Approach LOS		D			D			В			В	
Intersection Summary												
HCM 2000 Control Delay			20.2	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.61									
Actuated Cycle Length (s)			115.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliz	ation		71.8%	IC	U Level	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	16.56	PF.	ተተጉ		16	ተ ቀት			
Volume (vph)	247	82	1699	320	61	982			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0			
Lane Util. Factor	0.97	1.00	0.91		1.00	0.91			
Frt	1.00	0.85	0.98		1.00	1.00			
Flt Protected	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (prot)	3433	1583	4964		1770	5085			
Flt Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	3433	1583	4964		1770	5085			
Peak-hour factor, PHF	0.77	0.77	0.89	0.89	0.96	0.96			
Adj. Flow (vph)	321	106	1909	360	64	1023			
RTOR Reduction (vph)	0	92	17	0	0	0			
Lane Group Flow (vph)	321	14	2252	0	64	1023			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases	-	8	=			_			
Actuated Green, G (s)	15.3	15.3	78.5		8.4	91.4			
Effective Green, g (s)	14.8	14.8	80.3		7.9	92.2			
Actuated g/C Ratio	0.13	0.13	0.70		0.07	0.80			
Clearance Time (s)	3.5	3.5	5.8		3.5	4.8			
Vehicle Extension (s)	2.2	2.2	3.5		2.0	2.5			
Lane Grp Cap (vph)	441	203	3466		121	4076			
v/s Ratio Prot	c0.09		c0.45		c0.04	0.20			
v/s Ratio Perm		0.01							
v/c Ratio	0.73	0.07	0.65		0.53	0.25			
Uniform Delay, d1	48.2	44.0	9.6		51.8	2.8			
Progression Factor	1.00	1.00	1.32		1.19	0.72			
Incremental Delay, d2	5.2	0.1	0.6		1.8	0.1			
Delay (s)	53.4	44.1	13.3		63.4	2.2			
Level of Service	D	D	В		Е	Α			
Approach Delay (s)	51.1		13.3			5.8			
Approach LOS	D		В			Α			
Intersection Summary									
HCM 2000 Control Delay			15.4	H	ICM 2000	Level of Service	е	В	
HCM 2000 Volume to Capa	acity ratio		0.65						
Actuated Cycle Length (s)			115.0	S	um of los	t time (s)		12.0	
Intersection Capacity Utiliza	ation		60.4%	10	CU Level	of Service		В	
Analysis Period (min)			15						
c Critical Lane Group									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				,tel	4	74	34 34	44			1	ľ
Volume (vph)	0	0	0	303	1	265	1137	1826	0	0	619	561
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.91	0.91
Frt				1.00	1.00	0.85	1.00	1.00			0.96	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1686	1583	3433	3539			3268	1441
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1686	1583	3433	3539			3268	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.95	0.95	0.95	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	361	1	315	1197	1922	0	0	688	623
RTOR Reduction (vph)	0	0	0	0	0	43	0	0	0	0	20	146
Lane Group Flow (vph)	0	0	0	180	182	272	1197	1922	0	0	886	259
Turn Type				Split	NA	Prot	Prot	NA			NA	Prot
Protected Phases				. 8	8	8	5	2			6	6
Permitted Phases												
Actuated Green, G (s)				12.0	12.0	12.0	51.5	95.0			39.5	39.5
Effective Green, g (s)				12.0	12.0	12.0	51.5	95.0			39.5	39.5
Actuated g/C Ratio				0.10	0.10	0.10	0.45	0.83			0.34	0.34
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				175	175	165	1537	2923			1122	494
v/s Ratio Prot				0.11	0.11	c0.17	c0.35	0.54			c0.27	0.18
v/s Ratio Perm												
v/c Ratio				1.03	1.04	1.65	0.78	0.66			0.79	0.52
Uniform Delay, d1				51.5	51.5	51.5	26.9	3.8			34.0	30.2
Progression Factor				1.00	1.00	1.00	0.80	0.43			0.64	0.49
Incremental Delay, d2				75.7	79.0	317.3	2.0	0.9			5.5	3.8
Delay (s)				127.2	130.5	368.8	23.5	2.5			27.2	18.7
Level of Service				F	F	F	С	Α			С	В
Approach Delay (s)		0.0			240.5			10.6			24.5	
Approach LOS		Α			F			В			С	
Intersection Summary												
HCM 2000 Control Delay			44.6	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capaci	ty ratio		0.88									
Actuated Cycle Length (s)			115.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utilization	on		74.0%	IC	CU Level	of Service	•		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			7575			79"		ተ ቀተ	75	75	44	
Volume (vph)	0	0	774	0	0	1114	0	1844	720	218	690	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.95	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	3539	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	3539	
Peak-hour factor, PHF	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	0	0	823	0	0	1198	0	1983	774	245	775	0
RTOR Reduction (vph)	0	0	335	0	0	0	0	0	106	0	0	0
Lane Group Flow (vph)	0	0	488	0	0	1198	0	1983	668	245	775	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			37.7			115.0		77.0	77.0	30.0	99.3	
Effective Green, g (s)			37.7			115.0		77.0	77.0	30.0	99.3	
Actuated g/C Ratio			0.33			1.00		0.67	0.67	0.26	0.86	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			1010			1611		3404	1059	461	3055	
v/s Ratio Prot			0.03					0.39		0.14	0.22	
v/s Ratio Perm			0.14			c0.74			0.42			
v/c Ratio			0.48			0.74		0.58	0.63	0.53	0.25	
Uniform Delay, d1			30.9			0.0		10.3	10.9	36.5	1.4	
Progression Factor			1.00			1.00		1.00	1.00	0.28	0.03	
Incremental Delay, d2			0.4			3.2		0.7	2.9	0.5	0.1	
Delay (s)			31.2			3.2		11.0	13.7	10.6	0.1	
Level of Service			С			Α		В	В	В	Α	
Approach Delay (s)		31.2			3.2			11.8			2.7	
Approach LOS		С			Α			В			Α	
Intersection Summary												
HCM 2000 Control Delay			11.2	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity r	atio		0.80									
Actuated Cycle Length (s)			115.0		um of los				8.0			
Intersection Capacity Utilization			63.3%	IC	CU Level	of Service)		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 23: Harvard Way & Silva Valley Pkwy.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J,	44		Jal.	44		34,	44	il.	1	41>	
Volume (vph)	100	331	39	131	184	143	74	265	222	170	170	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.93		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3483		1770	3307		1770	3539	1583	1770	3362	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3483		1770	3307		1770	3539	1583	1770	3362	
Peak-hour factor, PHF	0.83	0.83	0.83	0.95	0.95	0.95	0.91	0.91	0.91	0.81	0.81	0.81
Adj. Flow (vph)	120	399	47	138	194	151	81	291	244	210	210	105
RTOR Reduction (vph)	0	12	0	0	110	0	0	0	196	0	82	0
Lane Group Flow (vph)	120	434	0	138	235	0	81	291	48	210	233	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	4.0	12.2		6.1	14.3		4.0	10.2	10.2	5.0	11.2	
Effective Green, g (s)	4.0	12.2		6.1	14.3		4.0	10.2	10.2	5.0	11.2	
Actuated g/C Ratio	0.08	0.23		0.12	0.27		0.08	0.20	0.20	0.10	0.21	
Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	135	815		207	907		135	692	309	169	722	
v/s Ratio Prot	0.07	c0.12		c0.08	0.07		0.05	c0.08		c0.12	0.07	
v/s Ratio Perm									0.03			
v/c Ratio	0.89	0.53		0.67	0.26		0.60	0.42	0.15	1.24	0.32	
Uniform Delay, d1	23.8	17.5		22.0	14.8		23.3	18.4	17.4	23.6	17.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	45.2	0.7		7.9	0.2		7.0	0.4	0.2	149.1	0.3	
Delay (s)	69.1	18.1		29.9	14.9		30.3	18.8	17.6	172.7	17.5	
Level of Service	Е	В		С	В		С	В	В	F	В	
Approach Delay (s)		28.9			19.2			19.8			79.6	
Approach LOS		С			В			В			Е	
Intersection Summary												
HCM 2000 Control Delay			36.4	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capac	ity ratio		0.62									
Actuated Cycle Length (s)	-		52.1	S	um of los	t time (s)			18.6			
Intersection Capacity Utilizati	ion		49.9%	IC	U Level	of Service			Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	71	Jal.	7.		jąć.	10		7	4	7
Volume (vph)	121	10	185	8	10	5	177	299	10	9	204	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1766		1770	1854		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1766		1770	1854		1770	1863	1583
Peak-hour factor, PHF	0.87	0.87	0.87	0.58	0.58	0.58	0.85	0.85	0.85	0.90	0.90	0.90
Adj. Flow (vph)	139	11	213	14	17	9	208	352	12	10	227	74
RTOR Reduction (vph)	0	0	177	0	9	0	0	2	0	0	0	56
Lane Group Flow (vph)	139	11	36	14	17	0	208	362	0	10	227	18
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	6.3	7.1	7.1	0.5	1.3		7.7	17.6		0.5	10.4	10.4
Effective Green, g (s)	6.3	7.1	7.1	0.5	1.3		7.7	17.6		0.5	10.4	10.4
Actuated g/C Ratio	0.15	0.17	0.17	0.01	0.03		0.18	0.42		0.01	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	267	317	269	21	55		326	782		21	464	394
v/s Ratio Prot	c0.08	0.01		0.01	0.01		c0.12	c0.20		0.01	0.12	
v/s Ratio Perm			c0.02									0.01
v/c Ratio	0.52	0.03	0.13	0.67	0.31		0.64	0.46		0.48	0.49	0.05
Uniform Delay, d1	16.3	14.4	14.7	20.5	19.8		15.7	8.7		20.5	13.4	11.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.8	0.0	0.2	58.7	3.3		4.1	0.4		16.0	0.8	0.0
Delay (s)	18.1	14.5	14.9	79.2	23.0		19.8	9.1		36.5	14.2	11.9
Level of Service	В	В	В	Е	С		В	Α		D	В	В
Approach Delay (s)		16.1			42.7			13.0			14.4	
Approach LOS		В			D			В			В	
Intersection Summary												
HCM 2000 Control Delay			15.1	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capa	acity ratio		0.57									_
Actuated Cycle Length (s)	.,		41.7	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		43.9%			of Service			Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 25: Site Dwy RIRO & Green Valley Rd.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	17	4	39	56	2	43	70	258	89	47	200	29
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	22	5	49	64	2	49	82	304	105	55	235	34
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	76	116	491	325								
Volume Left (vph)	22	64	82	55								
Volume Right (vph)	49	49	105	34								
Hadj (s)	-0.30	-0.11	-0.06	0.01								
Departure Headway (s)	5.9	6.0	4.9	5.2								
Degree Utilization, x	0.12	0.19	0.67	0.46								
Capacity (veh/h)	506	520	712	666								
Control Delay (s)	9.7	10.4	17.1	12.5								
Approach Delay (s)	9.7	10.4	17.1	12.5								
Approach LOS	Α	В	С	В								
Intersection Summary												
Delay			14.3									
Level of Service			В									
Intersection Capacity Utiliza	ation		48.0%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			4		PF.
Volume (veh/h)	765	117	0	497	0	14
Sign Control	Free	• • • •		Free	Stop	• • • • • • • • • • • • • • • • • • • •
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	832	127	0	540	0	15
Pedestrians	**-		-		-	
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				796		
pX, platoon unblocked					0.94	
vC, conflicting volume			959		1435	895
vC1, stage 1 conf vol			500		00	
vC2, stage 2 conf vol						
vCu, unblocked vol			959		1432	895
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			717		140	339
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	959	540	15			
Volume Left	959	0	0			
Volume Right	127	0	15			
cSH	1700	717	339			
Volume to Capacity	0.56	0.00	0.04			
Queue Length 95th (ft)	0.56	0.00	0.04			
Control Delay (s)	0.0	0.0	16.1			
Lane LOS	0.0	0.0	10.1 C			
Approach Delay (s)	0.0	0.0	16.1			
Approach LOS	0.0	0.0	10.1 C			
••			C			
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utiliza	ation		57.4%	IC	U Level of	of Service
Analysis Period (min)			15			

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5/7/2013 Kimley-Horn and Associates, Inc.

Dixon Ranch <u>93</u> : Aberdeen Ln & Ap	opian	ı Way
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Existing+PP PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		A.			4			444			44	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	665	0	0	370	0	0	0	0	0	0	(
Peak Hour Factor	0.85	0.85	0.85	0.69	0.69	0.69	0.70	0.70	0.70	0.79	0.79	0.79
Hourly flow rate (vph)	0	782	0	0	536	0	0	0	0	0	0	(
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	782	536	0	0								
Volume Left (vph)	0	0	0	0								
Volume Right (vph)	0	0	0	0								
Hadj (s)	0.03	0.03	0.00	0.00								
Departure Headway (s)	4.5	4.7	6.7	6.7								
Degree Utilization, x	0.98	0.71	0.00	0.00								
Capacity (veh/h)	786	759	521	521								
Control Delay (s)	47.9	18.3	9.7	9.7								
Approach Delay (s)	47.9	18.3	0.0	0.0								
Approach LOS	Е	С	Α	Α								
Intersection Summary												
Delay			35.9									
Level of Service			Е									
Intersection Capacity Utiliza	tion		38.3%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3	To		,tec	T.			4	14		4	
Volume (vph)	0	662	117	70	358	0	139	0	28	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0			
Lane Util. Factor		1.00		1.00	1.00			1.00	1.00			
Frt		0.98		1.00	1.00			1.00	0.85			
Flt Protected		1.00		0.95	1.00			0.95	1.00			
Satd. Flow (prot)		1821		1770	1863			1770	1583			
Flt Permitted		1.00		0.23	1.00			0.76	1.00			
Satd. Flow (perm)		1821		428	1863			1410	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	720	127	76	389	0	151	0	30	0	0	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	25	0	0	0
Lane Group Flow (vph)	0	838	0	76	389	0	0	151	5	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4		4	8		
Actuated Green, G (s)		32.2		32.2	32.2			8.8	8.8			
Effective Green, g (s)		32.2		32.2	32.2			8.8	8.8			
Actuated g/C Ratio		0.66		0.66	0.66			0.18	0.18			
Clearance Time (s)		4.0		4.0	4.0			4.0	4.0			
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0			
Lane Grp Cap (vph)		1196		281	1224			253	284			
v/s Ratio Prot		c0.46			0.21							
v/s Ratio Perm				0.18				c0.11	0.00			
v/c Ratio		0.70		0.27	0.32			0.60	0.02			
Uniform Delay, d1		5.3		3.5	3.6			18.5	16.5			
Progression Factor		1.00		1.00	1.00			1.00	1.00			
Incremental Delay, d2		1.9		0.5	0.2			3.8	0.0			
Delay (s)		7.2		4.0	3.8			22.2	16.6			
Level of Service		Α		Α	Α			С	В			
Approach Delay (s)		7.2			3.8			21.3			0.0	
Approach LOS		Α			Α			С			Α	
Intersection Summary												
HCM 2000 Control Delay			7.9	Н	CM 2000	Level of	Service		Α			
HCM 2000 Volume to Capacity	ratio		0.68									
Actuated Cycle Length (s)			49.0	S	um of los	t time (s)			8.0			
Intersection Capacity Utilization	1		63.5%	IC	U Level	of Service)		В			
Analysis Period (min)			15									
c Critical Lane Group												

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5/7/2013 Kimley-Horn and Associates, Inc.

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Road

27

62.6

0.0

62.6

21

50

85

226

0

0

Volume exceeds capacity, queue is theoretically infinite.

380

0.55

33.4

0.0

33.4

227

319

1935

869

0

0

0.44

WBT

1.11

96.6

0.0

96.6

786

869

1.11

55

0.21

47.2

0.0

47.2

39

58

165

370

0.15

0

186

0.67

52.1

0.0

52.1

117

133

1468

386

0.48

0

421

1.17

145.0

0.0

145.0

~404

#559

502

360

1.17

0

199

0.45

14.4

0.0

14.4

22

70

443

0

0

0.45

176

78.8

0.0

78.8

136 ~893

105

226

0.78

0

#276 #1254

Lane Group

Control Delay

Queue Delay

Total Delay

v/c Ratio

Lane Group Flow (vph)

Queue Length 50th (ft)

Queue Length 95th (ft) Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn Storage Cap Reductn

Intersection Summary

Reduced v/c Ratio

Existing+PP AM Peak

Dixon Ranch
3: Silva Valley Pkwy. & Green Valley Rd.

Existing+PP AM Peak

	ၨ	-	•	•	←	1	†	↓	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	2	298	205	80	833	396	123	59	
v/c Ratio	0.02	0.38	0.26	0.51	0.88	0.79	0.24	0.42	
Control Delay	54.5	26.1	4.2	60.3	37.1	50.4	27.2	57.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	54.5	26.1	4.2	60.3	37.1	50.4	27.2	57.8	
Queue Length 50th (ft)	1	151	0	55	500	257	52	39	
Queue Length 95th (ft)	11	251	48	112	#925	315	86	74	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	259	955	911	259	951	502	511	371	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.01	0.31	0.23	0.31	0.88	0.79	0.24	0.16	
Intersection Summary									

	•	→	•	•	←	1	†	↓	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	2	298	205	80	833	396	123	59	
v/c Ratio	0.02	0.38	0.26	0.51	0.88	0.79	0.24	0.42	
Control Delay	54.5	26.1	4.2	60.3	37.1	50.4	27.2	57.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	54.5	26.1	4.2	60.3	37.1	50.4	27.2	57.8	
Queue Length 50th (ft)	1	151	0	55	500	257	52	39	
Queue Length 95th (ft)	11	251	48	112	#925	315	86	74	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	259	955	911	259	951	502	511	371	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.01	0.31	0.23	0.31	0.88	0.79	0.24	0.16	
Intersection Summary									
# 95th percentile volume e	exceeds ca	pacity, qu	ieue may	be longe	er.				
Queue shown is maximu									

Queue shown is maximum after two cycles. # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

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Dixon Ranch 17: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB Ramp Evicting+DD

Existing+PP
AM Peak

	•	•	`	7	ı	+	*
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	372	373	309	527	735	1746	784
v/c Ratio	1.02	1.02	0.55	0.79	0.29	1.09	0.80
Control Delay	94.7	95.4	10.0	57.1	5.3	68.9	9.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	3.1	0.6
Total Delay	94.7	95.4	10.1	57.1	5.3	72.0	10.2
Queue Length 50th (ft)	~285	~286	15	172	67	~428	52
Queue Length 95th (ft)	#420	#421	63	209	82	#839	204
Internal Link Dist (ft)		600			562	105	
Turn Bay Length (ft)	410		185	260			
Base Capacity (vph)	366	366	566	749	2509	1609	985
Starvation Cap Reductn	0	0	0	0	0	11	41
Spillback Cap Reductn	0	0	11	0	143	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	1.02	0.56	0.70	0.31	1.09	0.83

Intersection Summary ~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Dixon Ranch 18: Latrobe Rd. & US-50 EB Ramp Existing+PP AM Peak

	•	•	†	~	-	↓
Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1418	425	817	186	291	1573
v/c Ratio	0.88	0.26	0.22	0.15	0.86	0.42
Control Delay	27.3	0.4	4.7	1.4	31.3	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	0.4	4.7	1.4	31.3	3.4
Queue Length 50th (ft)	439	0	57	7	172	71
Queue Length 95th (ft)	474	0	70	24	m161	m60
Internal Link Dist (ft)			720			562
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	1640	1611	3744	1204	337	3740
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.26	0.22	0.15	0.86	0.42
Intersection Summary						
m Volume for 95th percen	itile aueue	is metere	d by unst	ream sig	nal	

Dixon Ranch 26: Site Dwy. Full/S	Site Dwy	/. & Gı	reen V	alley F	Rd.	Existing+PP AM Peak
	→	•	←	†	~	
Lane Group	EBT	WBL	WBT	NBT	NBR	
Lane Group Flow (vph)	360	25	576	233	47	
v/c Ratio	0.33	0.04	0.52	0.55	0.09	
Control Delay	7.1	6.1	9.5	17.9	5.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	7.1	6.1	9.5	17.9	5.1	
Queue Length 50th (ft)	38	2	77	37	0	
Queue Length 95th (ft)	97	12	183	109	17	
Internal Link Dist (ft)	726		524	781		
Turn Bay Length (ft)		215				
Base Capacity (vph)	1331	726	1350	628	732	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.27	0.03	0.43	0.37	0.06	
Intersection Summary						

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Road Existing+PP PM Peak

	•	→	•	←	4	†	ļ	4
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	123	955	111	719	65	376	141	106
v/c Ratio	0.85	1.07	0.95	0.84	0.19	1.04	0.64	0.37
Control Delay	108.0	85.6	134.4	43.7	50.1	108.8	71.6	13.3
Queue Delay	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Total Delay	108.0	85.6	134.4	44.6	50.1	108.8	71.6	13.3
Queue Length 50th (ft)	113	~967	103	565	50	~347	124	0
Queue Length 95th (ft)	#239	#1289	#212	706	91	#513	195	53
Internal Link Dist (ft)		1935		786		1468	502	
Turn Bay Length (ft)	85		105		165			
Base Capacity (vph)	146	894	117	855	343	360	286	338
Starvation Cap Reductn	0	0	0	29	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	1.07	0.95	0.87	0.19	1.04	0.49	0.31

Intersection Summary

Queue shown is maximum after two cycles.

Dixon Ranch 3: Silva Valley Pkwy. & Green Valley Rd. Existing+PP PM Peak

	۶	-	\rightarrow	•	←	1	†	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	6	838	279	47	524	234	96	16	
v/c Ratio	0.06	0.78	0.29	0.34	0.43	0.73	0.27	0.14	
Control Delay	52.8	26.6	8.9	54.5	12.4	53.7	13.8	46.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	52.8	26.6	8.9	54.5	12.4	53.7	13.8	46.9	
Queue Length 50th (ft)	4	350	39	27	110	134	9	8	
Queue Length 95th (ft)	19	#896	132	74	378	250	56	25	
nternal Link Dist (ft)		786			894		862	349	
Furn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	292	1078	969	292	1222	567	577	411	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.02	0.78	0.29	0.16	0.43	0.41	0.17	0.04	
Intersection Summary									

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Dixon Ranch 17: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB Ramp Existing+PP PM Peak

Dixon Ranch
18: Latrobe Rd. & US-50 EB Ram

Existing+PP PM Peak

	•	←	•	4	†	ļ	1
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	180	182	315	1197	1922	906	405
v/c Ratio	1.03	1.04	1.51	0.78	0.66	0.79	0.63
Control Delay	126.7	129.4	285.4	24.2	2.6	28.7	12.2
Queue Delay	0.0	0.0	0.8	0.1	3.4	49.9	4.2
Total Delay	126.7	129.4	286.2	24.2	6.0	78.6	16.4
Queue Length 50th (ft)	~149	~152	~294	247	61	267	142
Queue Length 95th (ft)	#271	#274	#431	238	68	#510	107
Internal Link Dist (ft)		600			562	105	
Turn Bay Length (ft)	410		185	260			
Base Capacity (vph)	175	175	208	1940	2923	1143	641
Starvation Cap Reductn	0	0	0	65	0	366	161
Spillback Cap Reductn	0	0	11	0	882	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	1.04	1.60	0.64	0.94	1.17	0.84

Intersection Summary

	•	4	†	<i>></i>	\	↓
Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	823	1198	1983	774	245	775
v/c Ratio	0.62	0.74	0.58	0.66	0.53	0.25
Control Delay	13.1	3.2	11.1	9.2	12.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	3.2	11.1	9.2	12.3	0.1
Queue Length 50th (ft)	106	0	264	171	119	1
Queue Length 95th (ft)	172	0	304	293	m98	m1
Internal Link Dist (ft)			720			562
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	1593	1611	3404	1166	461	3054
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.74	0.58	0.66	0.53	0.25
Intersection Summary						
m Volume for 95th percer	ntile queue i	s metere	d by unst	ream sign	nal	

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Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

	→	•	←	†	~
Lane Group	EBT	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	847	76	389	151	30
v/c Ratio	0.66	0.26	0.30	0.47	0.08
Control Delay	10.4	8.1	5.6	23.5	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	8.1	5.6	23.5	7.8
Queue Length 50th (ft)	135	8	44	37	0
Queue Length 95th (ft)	334	35	105	91	16
Internal Link Dist (ft)	716		524	781	
Turn Bay Length (ft)		215			
Base Capacity (vph)	1364	319	1388	502	584
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.62	0.24	0.28	0.30	0.05
Intersection Summary					

Appendix D:

Volume Growth Rate and Projection Calculations

	iforn	

Intersection			NB			SB			EB			WB	
Intersection		L	Т	R	L	Т	R	L	Т	R	L	Т	R
Green Valley Road @ Francisco Dr.	2013	290	168	7	91	276	367	153	218	229	60	699	75
Green Valley Road @ El Dorado Hills Blvd.	2013	36	63	25	106	229	159	23	267	17	60	708	47
Green Valley Road @ Silva Valley Pkwy.	2013	281	49	33	5	38	3	2	204	191	59	539	1
Green Valley Road @ Loch Way	2013	23	0	6	0	0	0	0	286	13	6	560	0
Green Valley Road @ Wilson Estates Connector	FUTURE								292			566	
Green Valley Road @ Malcom Dixon Road	2013	0	0	0	8	0	21	6	264	0	0	528	2
Green Valley Rd. @ Deer Valley Rd.	2013	12	0	10	21	0	28	7	245	2	4	491	- 6
Green Valley Rd. @ Silver Springs Pkwy	FUTURE								526			750	
Green Valley Rd. @ Bass Lake Rd.	2013	187	3	58	1	0	1	4	370	152	159	562	- 6
Green Valley Rd. @ Cambridge Rd.	2013	196	2	46	13	4	40	10	342	73	21	487	-6
Green Valley Rd. @ Cameron Park Dr.	2013	255	15	71	9	63	23	22	126	254	112	242	-
El Dorado Hills Blvd. @ Francisco Dr.	2013	361	115	37	125	248	3	2	49	453	45	63	4
El Dorado Hills @ Harvard Way	2013	0	309	328	265	810	0	0	0	0	399	0	14
El Dorado Hills Blvd. @ Serrano Pkwy.	2013	32	391	173	66	1399	27	23	15	84	571	14	8
El Dorado Hills @ Saratoga Way (N)	2013	66	582	32	125	1866	8	20	6	98	13	5	5
El Dorado Hills @ Saratoga Way (S)	2013	0	666	158	60	1911	0	0	0	0	182	0	3
El Dorado Hills @ WB US-50 Ramps	2013	469	624	0	0	875	1190	0	0	0	611	0	24
Latrobe Rd. @ EB US-50 Ramps	2013	0	760	173	211	1290	0	0	0	1177	0	0	31
Silva Valley Pkwy. @ EB US-50 Ramps	FUTURE												
Silva Valley Pkwy. @ WB US-50 Ramps	FUTURE												
Silva Valley Pkwy. @ Country Club Dr.	FUTURE												г
Silva Valley Pkwy. @ Serrano Pkwy.	2013	134	211	101	157	297	143	109	95	83	247	329	4
Silva Valley Pkwy. @ Harvard Way	2013	426	212	37	33	170	302	69	89	221	113	66	1
Silva Valley Pkwy. @ Appian Way	2013	20	190	41	23	226	19	35	1	83	154	2	- 6
Green Valley Rd. @ Site Dwy RIRO	2013								272			530	г
Green Valley Rd. @ Site Dwy. Full	2013				-				272			530	$\overline{}$

		NB			SB			EB			WB	
Intersection	L	т	R	L	т	R	L	т	R	L	т	R
Green Valley Road @ Francisco Dr.	290	168	7	91	276	367	153	253	229	60	796	75
Green Valley Road @ El Dorado Hills Blvd.	36	63	60	108	229	159	23	302	17	157	805	53
Green Valley Road @ Silva Valley Pkwy.	281	49	38	5	38	3	2	277	191	73	739	19
Green Valley Road @ Loch Way	23	0	6	0	0	0	0	364	13	6	774	0
Green Valley Road @ Wilson Estates Connector	0	0	0	0	0	0	0	370	0	0	780	0
Green Valley Road @ Malcom Dixon Road	0	0	0	8	0	21	6	342	0	0	742	2
Green Valley Rd. @ Deer Valley Rd.	12	0	10	21	0	28	7	309	2	4	514	6
Green Valley Rd. @ Silver Springs Pkwy	0	0	0	0	0	0	0	590	0	0	773	0
Green Valley Rd. @ Bass Lake Rd.	191	3	58	1	0	1	4	423	163	159	581	5
Green Valley Rd. @ Cambridge Rd.	200	2	46	13	4	40	10	384	84	21	502	6
Green Valley Rd. @ Cameron Park Dr.	262	15	71	9	63	23	22	148	273	112	250	4
El Dorado Hills Blvd. @ Francisco Dr.	361	150	37	125	345	3	2	49	453	45	63	42
El Dorado Hills @ Harvard Way	0	344	328	265	907	0	0	0	0	399	0	14
I Dorado Hills Blvd. @ Serrano Pkwy.	32	426	178	66	1496	27	23	15	84	585	14	86
El Dorado Hills @ Saratoga Way (N)	66	622	32	125	1977	8	20	6	98	13	5	51
El Dorado Hills @ Saratoga Way (S)	0	706	158	60	2022	0	0	0	0	182	0	32
El Dorado Hills @ WB US-50 Ramps	469	654	0	0	903	1273	0	0	0	611	0	25
Latrobe Rd. @ EB US-50 Ramps	0	760	173	239	1290	0	0	0	1177	0	0	34
Silva Valley Pkwy. @ EB US-50 Ramps	0	0	0	0	0	0	0	0	0	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	0	0	0	0	0	0	0	0	0	0	0	0
Silva Valley Pkwy. @ Country Club Dr.	0	0	0	0	0	0	0	0	0	0	0	0
Silva Valley Pkwy. @ Serrano Pkwy.	134	211	101	157	297	157	114	95	83	247	329	43
Silva Valley Pkwy. @ Harvard Way	426	217	37	33	184	302	69	89	221	113	66	-10
Silva Valley Pkwy. @ Appian Way	20	195	41	23	240	19	35	1	83	154	2	62
Green Valley Rd. @ Site Dwy RIRO	0	0	21	0	0	0	0	311	39	0	744	0
Green Valley Rd. @ Site Dwy. Full	214	0	43	0	0	0	0	293	39	23	530	0

Intersection		NB			SB			EB			WB	
Intersection	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Green Valley Road @ Francisco Dr.	297	172	7	95	289	384	162	231	243	69	803	86
Green Valley Road @ El Dorado Hills Blvd.	39	68	27	124	269	187	25	292	19	69	819	54
Green Valley Road @ Silva Valley Pkwy.	353	62	41	6	42	3	2	232	217	66	605	21
Green Valley Road @ Loch Way	25	0	7	0	0	0	0	315	14	7	616	0
Green Valley Road @ Wilson Estates Connector	0	0	0	0	0	0	0	321	0	0	623	0
Green Valley Road @ Malcom Dixon Road	0	0	0	9	0	23	7	290	0	0	581	2
Green Valley Rd. @ Deer Valley Rd.	14	0	12	25	0	33	8	265	2	4	527	6
Green Valley Rd. @ Silver Springs Pkwy	0	0	0	0	0	0	0	579	0	0	825	0
Green Valley Rd. @ Bass Lake Rd.	222	4	69	1	0	1	4	393	162	169	597	5
Green Valley Rd. @ Cambridge Rd.	208	2	49	14	4	42	11	385	82	22	515	6
Green Valley Rd. @ Cameron Park Dr.	276	16	77	9	64	23	25	140	283	116	250	4
El Dorado Hills Blvd. @ Francisco Dr.	370	118	38	128	253	3	2	50	464	46	65	43
El Dorado Hills @ Harvard Way	0	317	336	266	813	0	0	0	0	449	0	15
El Dorado Hills Blvd. @ Serrano Pkwy.	33	401	177	68	1434	28	25	16	91	618	15	93
El Dorado Hills @ Saratoga Way (N)	75	658	36	130	1942	8	22	7	108	14	6	56
El Dorado Hills @ Saratoga Way (S)	0	753	179	62	1989	0	0	0	0	200	0	35
El Dorado Hills @ WB US-50 Ramps	828	824	162	66	1297	794	176	82	740	161	189	56
Latrobe Rd. @ EB US-50 Ramps	0	1360	245	618	1580	0	0	0	1482	0	0	45
Silva Valley Pkwy. @ EB US-50 Ramps	570	576	0	0	1002	585	382	0	110	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	347	612	0	0	1063	515	0	0	0	524	0	53
Silva Valley Pkwy. @ Country Club Dr.	0	981	161	1	1416	0	0	0	0	163	0	15
Silva Valley Pkwy. @ Serrano Pkwy.	144	509	211	160	555	232	154	80	143	419	220	34
Silva Valley Pkwy. @ Harvard Way	589	293	51	41	209	372	98	127	315	124	73	11
Silva Valley Pkwy. @ Appian Way	25	238	51	27	263	22	39	1	91	169	2	68
Green Valley Rd. @ Site Dwy RIRO							0	294	0	0	595	0
Green Valley Rd. @ Site Dwy, Full							0	294	0	0	595	0

Existing plus Approved Project (Approve	a Projects		ımes	- An		K						
Intersection		NB		_	SB	_	_	EB		_	WB	
	L	T	R	L	Т	R	L	Т	R	L	Т	R
Green Valley Road @ Francisco Dr.	316	171	7	91	283	367	158	287	229	73	864	76
Green Valley Road @ El Dorado Hills Blvd.	36	84	35	117	308	180	32	334	17	92	880	60
Green Valley Road @ Silva Valley Pkwy.	388	50	48	5	41	- 6	2	250	234	107	648	19
Green Valley Road @ Loch Way	23	0	6	0	0	0	0	338	13	6	711	0
Green Valley Road @ Wilson Estates Connector	0	0	0	12	0	28	11	333	0	0	689	4
Green Valley Road @ Malcom Dixon Road	0	0	0	8	0	21	6	316	0	0	679	2
Green Valley Rd. @ Deer Valley Rd.	12	0	32	21	0	28	7	286	2	11	614	6
Green Valley Rd. @ Silver Springs Pkwy	105	0	26	0	0	0	0	552	36	9	759	0
Green Valley Rd. @ Bass Lake Rd.	187	3	58	1	0	1	4	422	152	159	580	5
Green Valley Rd. @ Cambridge Rd.	198	2	46	13	4	40	10	388	79	21	503	6
Green Valley Rd. @ Cameron Park Dr.	259	15	71	9	63	23	22	161	265	112	254	4
El Dorado Hills Blvd. @ Francisco Dr.	407	146	37	125	355	3	2	49	485	45	64	42
El Dorado Hills @ Harvard Way	0	344	328	265	917	0	0	0	0	399	0	147
El Dorado Hills Blvd. @ Serrano Pkwy.	32	432	193	66	1524	30	23	15	84	650	14	86
El Dorado Hills @ Saratoga Way (N)	191	628	32	125	2043	27	31	11	203	13	13	51
El Dorado Hills @ Saratoga Way (S)	0	871	159	60	2219	0	0	0	0	182	0	32
El Dorado Hills @ WB US-50 Ramps												
Latrobe Rd. @ EB US-50 Ramps				-						$\overline{}$		$\overline{}$
Silva Valley Pkwy. @ EB US-50 Ramps		-		-	-		-	$\overline{}$	-	-		-
Silva Valley Pkw. @ WB US-50 Ramps												-
Silva Valley Pkwy. @ Country Club Dr.		$\overline{}$		-	$\overline{}$		-	$\overline{}$	-	$\overline{}$	-	-
Silva Valley Pkwy, @ Serrano Pkwy,	-	-					-		-			-
Silva Valley Pkwy. @ Harvard Way	426	273	37	33	273	302	69	89	221	113	66	10
Silva Valley Pkwy. @ Appian Way	20	236	56	44	285	19	35	1	83	198	2	130
Green Valley Rd. @ Site Dwy RIRO	0	0	0	0	0	0	0	313	0	0	653	0
Green Valley Rd. @ Site Dwy. Full	- i ŏ	ŏ	Ö	ő	ŏ	Ö	ő	313	0		653	ő

Intersection		NB			SB			EB			WB	
Intersection	L	T	R	L	Т	R	L	T	R	L	Т	R
Green Valley Road @ Francisco Dr.	316	171	7	91	283	367	158	287	229	73	864	76
Green Valley Road @ El Dorado Hills Blvd.	36	84	35	117	308	180	32	334	17	92	880	60
Green Valley Road @ Silva Valley Pkwy.	388	50	48	5	41	6	2	250	234	107	648	19
Green Valley Road @ Loch Way	23	0	6	0	0	0	0	338	13	6	711	0
Green Valley Road @ Wilson Estates Connector	0	0	0	12	0	28	11	333	0	0	689	4
Green Valley Road @ Malcom Dixon Road	0	0	0	8	0	21	6	316	0	0	679	2
Green Valley Rd. @ Deer Valley Rd.	12	0	32	21	0	28	7	286	2	11	614	6
Green Valley Rd. @ Silver Springs Pkwy	105	0	26	0	0	0	0	552	36	9	759	0
Green Valley Rd. @ Bass Lake Rd.	222	4	69	1	0	- 1	4	393	162	169	597	5
Green Valley Rd. @ Cambridge Rd.	208	2	49	14	4	42	11	385	82	22	515	6
Green Valley Rd. @ Cameron Park Dr.	276	16	77	9	64	23	25	140	283	116	250	4
El Dorado Hills Blvd. @ Francisco Dr.	407	146	37	125	355	3	2	49	485	45	64	42
El Dorado Hills @ Harvard Way	0	344	328	265	917	0	0	0	0	399	0	14
El Dorado Hills Blvd. @ Serrano Pkwy.	32	682	193	66	1524	30	23	15	84	650	14	86
El Dorado Hills @ Saratoga Way (N)	191	828	32	125	2043	27	31	11	203	13	13	51
El Dorado Hills @ Saratoga Way (S)	828	824	162	66	1397	794	176	82	740	161	189	56
El Dorado Hills @ WB US-50 Ramps	0	0			0	0				0		0
Latrobe Rd. @ EB US-50 Ramps	0	1360	245	618	1680	0	0	0	1482	0	0	45
Silva Valley Pkwy. @ EB US-50 Ramps	0	576	570	585	1002	0	382	0	110	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	347	612	0	0	1063	516	0	0	0	524	0	53
Silva Valley Pkwy. @ Country Club Dr.	0	981	161	1	1416	0	0	0	0	163	0	15
Silva Valley Pkwy. @ Serrano Pkwy.	144	509	211	160	555	232	154	80	143	439	220	34
Silva Valley Pkwy. @ Harvard Way	589	293	51	41	209	372	98	127	315	124	73	11
Silva Valley Pkwy. @ Appian Way	20	236	56	44	285	19	35	1	83	198	2	13
Green Valley Rd. @ Site Dwy RIRO	0	0	0	0	0	0	0	313	0	0	653	0
Green Valley Rd. @ Site Dwy. Full	0	0	0	0	0	0	0	313	0	0	653	0

Intersection		NB			SB			EB			WB	
intersection	L	T	R	L	T	R	L	Т	R	L	Т	R
Green Valley Road @ Francisco Dr.	316	171	7	91	283	367	158	322	229	73	961	76
Green Valley Road @ El Dorado Hills Blvd.	36	84	45	119	308	180	32	369	17	120	977	66
Green Valley Road @ Silva Valley Pkwy.	388	50	78	5	41	6	2	297	234	190	779	19
Green Valley Road @ Loch Way	23	0	6	0	0	0	0	416	13	6	925	0
Green Valley Road @ Wilson Estates Connector	0	0	0	12	0	28	11	411	0	0	903	4
Green Valley Road @ Malcom Dixon Road	0	0	0	8	0	21	6	394	0	0	893	2
Green Valley Rd. @ Deer Valley Rd.	12	0	32	21	0	28	7	350	2	11	637	6
Green Valley Rd. @ Silver Springs Pkwy	109	0	26	0	0	0	0	605	47	9	778	0
Green Valley Rd. @ Bass Lake Rd.	222	4	69	1	0	1	4	446	162	169	616	5
Green Valley Rd. @ Cambridge Rd.	212	2	49	14	4	42	11	427	93	22	530	6
Green Valley Rd. @ Cameron Park Dr.	283	16	77	9	64	23	25	162	302	116	258	4
El Dorado Hills Blvd. @ Francisco Dr.	407	156	37	125	383	3	2	49	485	45	64	42
El Dorado Hills @ Harvard Way	0	354	328	265	945	0	0	0	0	399	0	147
I Dorado Hills Blvd. @ Serrano Pkwy.	32	692	198	66	1552	30	23	15	84	664	14	86
El Dorado Hills @ Saratoga Way (N)	191	843	32	125	2085	27	31	11	203	13	13	51
El Dorado Hills @ Saratoga Way (S)	828	839	162	66	1439	836	176	82	740	161	189	56
El Dorado Hills @ WB US-50 Ramps												
atrobe Rd. @ EB US-50 Ramps	0	1360	245	618	1680	0	0	0	1482	0	0	468
Silva Valley Pkwy. @ EB US-50 Ramps	0	576	570	585	1002	0	397	0	110	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	347	627	0	0	1091	558	0	0	0	524	0	541
Silva Valley Pkwy. @ Country Club Dr.	0	1006	161	1	1486	0	0	0	0	163	0	157
Silva Valley Pkwy. @ Serrano Pkwy.	144	534	211	160	625	246	159	80	143	439	220	346
Silva Valley Pkwy. @ Harvard Way	589	323	51	41	292	372	98	127	315	124	73	11
Silva Valley Pkwy, @ Appian Way	20	266	56	44	368	19	35	1	83	198	2	130
Green Valley Rd. @ Site Dwy RIRO	0	0	21	0	0	0	0	352	39	0	867	0
Green Valley Rd. @ Site Dwy. Full	214	0	43	0	0	Ó	0	334	39	23	653	Ó

		NB			SB			EB			WB	
Intersection	-	NB T	R	L	3B	R	L	T	R	-	T	R
Green Valley Road @ Francisco Dr.	307	178	7	101	307	403	175	249	262	81	949	10
Green Valley Road @ El Dorado Hills Blvd.	43	75	30	150	324	225	28	326	21	83	974	65
Green Valley Road @ Silva Valley Pkwy.	454	79	53	6	47	4	3	271	254	76	698	25
Green Valley Road @ Loch Way	29	0	7	0	0	0	0	355	16	7	694	0
Green Valley Road @ Wilson Estates Connector	0	0	0	0	0	0	0	362	0	0	702	0
Green Valley Road @ Malcom Dixon Road	0	0	0	10	0	26	7	327	0	0	655	2
Green Valley Rd. @ Deer Valley Rd.	17	0	14	30	0	40	8	292	2	5	579	7
Green Valley Rd. @ Silver Springs Pkwy	0	0	0	0	0	0	0	652	0	0	930	0
Green Valley Rd. @ Bass Lake Rd.	270	4	84	1	0	1	5	426	175	183	646	6
Green Valley Rd. @ Cambridge Rd.	224	2	53	15	5	46	13	446	95	24	555	7
Green Valley Rd. @ Cameron Park Dr.	305	18	85	9	64	24	28	161	324	121	262	- 4
El Dorado Hills Blvd. @ Francisco Dr.	383	122	39	131	261	3	2	52	480	48	67	4
El Dorado Hills (2) Harvard Way	0	328	348	268	818	0	0	0	0	423	0	15
Dorado Hills Blvd. @ Serrano Pkwy.	34	414	183	70	1484	29	28	18	101	683	17	10
El Dorado Hills @ Saratoga Way (N)	87	764	42	137	2048	9	25	7	122	16	6	6
El Dorado Hills (2) Saratoga Way (S)	0	874	207	66	2097	0	0	0	0	226	0	4
Dorado Hills (2) WB US-50 Ramps												
.atrobe Rd. @ EB US-50 Ramps												
Silva Valley Pkwy. @ EB US-50 Ramps												
Silva Valley Pkwy. @ WB US-50 Ramps												
Silva Valley Pkwy. @ Country Club Dr.												
Silva Valley Pkwy. @ Serrano Pkwy.												
Silva Valley Pkwy. @ Harvard Way	818	407	71	51	265	470	139	180	446	140	82	12
Silva Valley Pkwy. @ Applan Way	32	304	66	32	314	26	43	1	103	191	2	7
Green Valley Rd. @ Site Dwy RIRO							0	324	0	0	686	0
Green Valley Rd. @ Site Dwy. Full							0	324	0	0	686	0

Cumulative Project (Turn32) Volumes - A	-in roak			_			_			_		
Intersection		NB			SB	_		EB			WB	_
	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Green Valley Road @ Francisco Dr.	303	179	7	105	307	415	179	258	260	83	978	107
Green Valley Road @ El Dorado Hills Blvd.	47	75	34	145	330	217	27	340	24	93	1011	63
Green Valley Road @ Silva Valley Pkwy.	464	77	56	6	47	4	3	282	259	79	727	27
Green Valley Road @ Loch Way	29	0	7	0	0	0	0	370	16	7	726	0
Green Valley Road @ Wilson Estates Connector	0	0	0	0	0	0	0	377	0	0	733	0
Green Valley Road @ Malcom Dixon Road	0	0	0	10	0	25	7	341	0	0	685	2
Green Valley Rd. @ Deer Valley Rd.	22	0	16	25	0	43	8	299	4	4	596	7
Green Valley Rd. @ Silver Springs Pkwy	0	0	0	0	0	0	0	657	0	0	941	0
Green Valley Rd. @ Bass Lake Rd.	269	4	84	1	0	1	6	428	178	178	654	6
Green Valley Rd. @ Cambridge Rd.	236	2	46	14	5	48	13	440	98	23	543	7
Green Valley Rd. @ Cameron Park Dr.	303	19	86	10	69	26	29	162	320	123	263	5
El Dorado Hills Blvd, @ Francisco Dr.	381	128	42	129	277	5	2	51	477	48	66	46
El Dorado Hills @ Harvard Way	0	296	393	329	764	0	0	0	0	494	0	189
El Dorado Hills Blvd. @ Serrano Pkwy.	30	402	190	86	1467	31	30	20	96	715	20	124
El Dorado Hills @ Saratoga Way (N)	85	760	49	131	2046	11	25	7	122	17	7	62
El Dorado Hills @ Saratoga Way (S)	0	868	208	66	2095	0	0	0	0	228	0	40
El Dorado Hills @ WB US-50 Ramps	906	982	169	69	1637	741	190	87	776	168	199	58
Latrobe Rd. @ EB US-50 Ramps	0	1591	213	724	1856	0	0	0	1606	0	0	462
Silva Valley Pkwy. @ EB US-50 Ramps	0	775	791	0	1376	592	471	0	148	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	0	780	466	0	1177	639	0	0	0	701	0	553
Silva Valley Pkw. @ Country Club Dr.	0	1082	252	1	1650	0	0	0	0	2\$5	0	246
Silva Valley Pkwy. @ Serrano Pkwy.	150	658	255	168	698	242	161	83	166	515	230	360
Silva Valley Pkw, @ Harvard Way	822	406	75	52	269	471	143	175	449	140	82	12
Silva Valley Pkw. @ Appian Way	31	311	66	32	321	27	43	1	103	191	2	77
Green Valley Rd. @ Site Dwy RIRO	0	0	0	0	0	0	0	338	0	0	716	0
Green Valley Rd. @ Site Dwy. Full	0	0	0	0	0	0	0	338	0	0	716	0

Cumulative Volumes - AM Peak		NR			SB		_	FR	_	_	WR	
Intersection	<u> </u>	NB		-	SB	R	_	EB	R	_	WB	R
Green Valley Road @ Francisco Dr.	316	179	7	105	307	416	179	287	260	83	978	107
Green Valley Road @ El Dorado Hills Blvd.	47	84	35	145	330	217	32	340	24	93	1011	63
Green Valley Road @ Silva Valley Pkwy.	464	77	56	6	47	6	3	282	259	107	727	27
Green Valley Road @ Loch Way	29	0	7	0	0	0	0	370	16	7	726	0
Green Valley Road @ Wilson Estates Connector	0	0	0	12	0	28	0	377	0	0	733	0
Green Valley Road @ Malcom Dixon Road	0	0	0	10	0	25	7	341	0	0	685	2
Green Valley Rd. @ Deer Valley Rd.	22	0	32	25	ő	43	8	299	4	11	614	2
Green Valley Rd. @ Silver Springs Pkwy	109	0	26	0	0	0	0	657	0	0	941	d
Green Valley Rd. @ Bass Lake Rd.	269	4	84	1	0	1	6	428	178	178	654	1
Green Valley Rd. @ Cambridge Rd.	224	2	53	15	5	46	13	446	95	24	555	
Green Valley Rd. @ Cameron Park Dr.	303	19	86	10	69	26	29	162	320	123	263	1
El Dorado Hills Blvd. @ Francisco Dr.	407	146	42	129	355	5	2	51	485	48	66	4
El Dorado Hills @ Harvard Way	0	344	393	329	917	0	0	0	0	494	0	18
El Dorado Hills Blvd. @ Serrano Pkwy.	32	772	390	86	1644	31	30	20	114	715	20	12
El Dorado Hills @ Saratoga Way (N)	191	1100	42	137	2309	27	31	11	203	16	13	6
El Dorado Hills @ Saratoga Way (S)	906	1085	169	69	1665	794	190	87	776	168	199	5
El Dorado Hills @ WB US-50 Ramps		1000	100	- 00	1000		100			100		-
Latrobe Rd. @ EB US-50 Ramps	0	1698	245	724	1885	0	0	0	1606	0	0	4
Silva Valley Pkwy. @ EB US-50 Ramps	791	775	2.0		1376	592	471	0	148	0	0	1
Silva Valley Pkwy. @ WB US-50 Ramps	466		0		1267	639	0	0	0	701	0	5/
Silva Valley Pkwy. @ Country Club Dr.		1082	252	1	1650	0	0	0	0	255	0	2
Silva Valley Pkwy. @ Serrano Pkwy.	150	658	255	168	698	242	161	83	166	535	230	3
Silva Valley Pkwy. @ Harvard Way	822	406	75	52	269	471	143	175	449	140	82	1
Silva Valley Pkwy. @ Appian Way	31	311	66	44	321	27	43	1	103	198	2	13
Green Valley Rd. @ Site Dwy RIRO	0	0	0	0	0	0	0	338	0	0	716	-
Green Valley Rd. @ Site Dwy. Full	ŏ	Ö	ő	Ö	ő	Ö	0	338	ŏ	0	716	1

Cumulative plus Proposed Project Volum		NB		_	SB		_	EB			WB	
Intersection	⊢	NB		Н-	38	R	_	EB	В		WB	R
Green Valley Road @ Francisco Dr.	316	179	7	105	307	416	179	322	260	83	1075	107
Green Valley Road @ El Dorado Hills Blvd.	47	84	45	147	330	217	32	375	24	121	1108	69
Green Valley Road @ Silva Valley Pkwy.	464	77	86	6	47	6	3	329	259	190	858	27
Green Valley Road @ Loch Way	29	0	7	0	0	0	0	448	16	7	940	0
Green Valley Road @ Wilson Estates Connector	0	ő	0	12	0	28	0	455	0	0	947	0
Green Valley Road @ Malcom Dixon Road	0	0	0	10	0	25	7	419	0	0	899	2
Green Valley Rd. @ Deer Valley Rd.	22	0	32	25	0	43	8	363	4	11	637	7
Green Valley Rd. @ Silver Springs Pkwy	113	ŏ	26	0	0	0	0	710	11	0	960	6
Green Valley Rd. @ Sliver Springs Pkwy Green Valley Rd. @ Bass Lake Rd.	269	4	84	1 4	0	1	6	481	178	178	673	6
Green Valley Rd. @ Bass Lake Rd. Green Valley Rd. @ Cambridge Rd.	209	2	53	15	5	46	13	488	106	24	570	7
Green Valley Rd. @ Cambridge Rd. Green Valley Rd. @ Cameron Park Dr.	310	19	86	10	69	26	29	184	339	123	271	5
El Dorado Hills Blvd. @ Francisco Dr.	407	156	42	129	383	5	29	51	485	48	66	46
El Dorado Hills @ Harvard Way	407	354	393	329	945	0	0	0	0	494	00	189
	32	782	395	86	1672	31	30	20	114	729	20	124
El Dorado Hills Blvd. @ Serrano Pkwy.		1115						11		16	13	
El Dorado Hills @ Saratoga Way (N)	191		42	137	2351	27	31		203			63
El Dorado Hills @ Saratoga Way (S)	906	1100	169	69	1665	836	190	87	776	168	199	58
El Dorado Hills @ WB US-50 Ramps						-	_	-		-		
Latrobe Rd. @ EB US-50 Ramps	0	1698	245	724	1885	0	0	0	1606	0	0	477
Silva Valley Pkwy. @ EB US-50 Ramps	791	775	0	0	1376	620	486	0	148	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	466	795	0	0	1295	681	0	0	0	701	0	563
Silva Valley Pkwy. @ Country Club Dr.	0	1107	252	1	1720	0	0	0	0	255	0	246
Silva Valley Pkwy. @ Serrano Pkwy.	150	683	255	168	768	256	166	83	166	535	230	360
Silva Valley Pkwy. @ Harvard Way	822	436	75	52	352	471	143	175	449	140	82	12
Silva Valley Pkwy. @ Appian Way	31	341	66	44	404	27	43	1	103	198	2	130
Green Valley Rd. @ Site Dwy RIRO	0	0	21	0	0	0	0	377	39	0	930	0
Green Valley Rd. @ Site Dwy. Full	214	0	43	0	0	0	0	359	39	23	716	0

Intersection		NB			SB			EB			WB	
intersection	L	Т	R	L	Т	R	L	Т	R	L	Т	
essara Development												
Green Valley Road @ Francisco Dr.												Г
Green Valley Road @ El Dorado Hills Elvd.												Г
Green Valley Road @ Silva Valley Pkwy.												
Green Valley Road @ Loch Way												Г
Green Valley Road @ Wilson Estates Connector												Г
Green Valley Road @ Malcom Dixon Road												Г
Green Valley Rd. @ Deer Valley Rd.												Г
Green Valley Rd. @ New Bass Lake Rd.												Г
Green Valley Rd. @ Bass Lake Rd.												L
Green Valley Rd. @ Cambridge Rd.												L
Green Valley Rd. @ Cameron Park Dr.												L
El Dorado Hills Blvd. @ Francisco Dr.												L
El Dorado Hills @ Harvard Way												L
El Dorado Hills Blvd. @ Serrano Pkwy.												1
El Dorado Hills @ Saratoga Way (N)	5	2			1				1			1
El Dorado Hills @ Saratoga Way (S)		7	1		2	_					_	L
El Dorado Hills @ WB US-50 Ramps	18	8			2					2		┺
Latrobe Rd. @EB US-50 Ramps		26	12	_	4	_			4	_	_	┺
Silva Valley Pkwy. @ EB US-50 Ramps		_	-							_		₽
Silva Valley Pkwy. @ WB US-50 Ramps									_	_		L
Silva Valley Pkvy. @ Country Club Dr.												╀
Silva Valley Pkwy. @ Serrano Pkwy.	_	_	_	_	_	_	_	_	_	_	_	╀
Silva Valley Pkwy. @ Harvard Way		_					_		_		_	L
Silva Valley Pkwy. @ Appian Way	_	_				_	_	_	_	-	_	₽
Aberdeen Lane @ Appian Way	_	—	-	_	_	_	_	<u> </u>	_	-	_	╀
Green Valley Rd. @ Site Dwy. Green Valley Rd. @ Site Dwy.	_	_	_	_	_	_	_	_	_	-	_	╀
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arson Creek-Unit 1 (WO#13)												_
Green Valley Road @ Francisco Dr.										_		┺
Green Valley Road @ El Dorado Hills Elvd.	_	_							_		_	₽
Green Valley Road @ Silva Valley Pkwy.		_							_	_	_	┺
Green Valley Road @ Loch Way		_							_	_	_	┺
Green Valley Road @ Wilson Estates Connector			$\overline{}$							_		┸
Green Valley Road @ Malcom Dixon Road			_							_		₽
Green Valley Rd. @ Deer Valley Rd.			-							_		┺
Green Valley Rd. @ New Bass Lake Rd.	_	_				_	_		_		_	₽
Green Valley Rd. @ Bass Lake Rd.	-	—	_	—	_	—	_	—	_	_	_	1
Green Valley Rd. @ Cambridge Rd.	-	-	$\overline{}$	\vdash		\vdash	-	\vdash	-	\vdash	_	+
Green Valley Rd. @ Cameron Park Dr.	-	⊢	-	⊢	-	⊢	⊢	⊢	—	-	—	₽
El Dorado Hills Blvd. @ Francisco Dr.	-	⊢	-	—	\vdash	—	-	—	_	\vdash	-	₽
El Dorado Hills @ Harvard Way	-	-	-		_	\vdash	-	\vdash	-	-		₽
El Dorado Hills Blvd. @ Serrano Pkwy.	-	⊢	-	—	\vdash	\vdash	-	—	_	\vdash	_	₽
El Dorado Hills @ Saratoga Way (N)	-	40	-	-	-	\vdash	-	\vdash	-	-	-	₽
El Dorado Hills @ Saratoga Way (S)	-	10	-	\vdash	5	\vdash	-	\vdash	_	-	_	₽
El Dorado Hills @ WB US-50 Ramps	5	10	_	-	10	\vdash	-	\vdash	-	5	_	₽
Latrobe Rd. @EB US-50 Ramps Silva Valley Pkwy. @ EB US-50 Ramps	-	15	9	-	10	\vdash	\vdash	\vdash	3	-	-	╁
	-	-	-	\vdash		\vdash		\vdash		-		٠
Silva Valley Pkwy. @ WB US-50 Ramps	-	-		-		\vdash	-	\vdash	-	-	_	٠
Silva Valley Pkwy. @ Country Club Dr.	-	-	-	-		\vdash	-	-	-	-	-	٠
Silva Valley Pkwy. @ Serrano Pkwy. Silva Valley Pkwy. @ Harvard Way	-	_	_	_	_	-	-	-	-	-	_	₽
	-	-	-	-		\vdash	\vdash	\vdash	-	-	-	╁
Silva Valley Pkwy. @ Appian Way	-	-		-		\vdash	\vdash	\vdash	-	-	-	₽
Aberdeen Lane @ Appian Way	-	-	-	-	-	\vdash	\vdash	\vdash	_	-	-	₽
Green Valley Rd. @ Site Dwy.	- 1	1								4		1

Traffic Impact Analysis

		NB			SB			EB			WB	_
Intersection	L	ΙŢ	R	L	T	R	L	T	R	L	T	П
Sun Stone Business Park (WO#22)			- 11			- 11						_
Green Valley Road @ Francisco Dr.		$\overline{}$									$\overline{}$	$\overline{}$
Green Valley Road @ El Dorado Hills Elvd.	_	10			51			-	-		_	⊢
Green Valley Road @ Silva Valley Pkwr.	_	10		-	- 01		-	-	-		-	⊢
Green Valley Road @ Loch Way	_	-		-	-		-	-	-	-	_	⊢
Green Valley Road @ Wilson Estates Connector	_	-		-	-	_	-	-	-	-	-	⊢
Green Valley Road @ Malcom Dixon Road	_	\vdash		-	-		-	-	-			⊢
	-	\vdash		_	-	_		_	-		_	⊢
Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd.	-	-			\vdash		-		-	$\overline{}$	_	⊢
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Green Valley Rd. @ Bass Lake Rd.	-	\vdash			\vdash		-	├	-		_	⊢
Green Valley Rd. @ Cambridge Rd.	_	-		_	-		-	-	-	$\overline{}$	_	⊢
Green Valley Rd. @ Cameron Park Dr.	_			—			-	—	-		_	⊢
El Dorado Hills Blvd. @ Francisco Dr.	_	10	_		51				\vdash			┺
El Dorado Hills @ Harvard Way		10			51		$\overline{}$		\vdash			┺
El Dorado Hills Blvd. @ Serrano Pkwy.		10	11		51		\vdash			59		┺
El Dorado Hills @ Saratoga Way (N)	6	21			110				34			
El Dorado Hills @ Saratoga Way (S)		27			144							L
El Dorado Hills @ WB US-50 Ramps	22	27			144					102		L
Latrobe Rd. @EB US-50 Ramps		49	19		246				114			L
Silva Valley Pkwy. @ EB US-50 Ramps												L
Silva Valley Pkny. @ WB US-50 Ramps												
Silva Valley Pkwy. @ Country Club Dr.												
Silva Valley Pkny. @ Serrano Pkwy.												L
Silva Valley Pkwy. @ Harvard Way												
Silva Valley Pkwy. @ Appian Way												Г
Aberdeen Lane @ Appian Way												Г
Green Valley Rd. @ Site Dwy.												Г
Green Valley Rd. @ Site Dwy.												Г
lilldale Office Park (WO #23)												
Green Valley Road @ Francisco Dr.												
Green Valley Road @ El Dorado Hills Elvd.												
Green Valley Road @ Silva Valley Pkwy.												
Green Valley Road @ Loch Way												
Green Valley Road @ Wilson Estates Connector												Г
Green Valley Road @ Malcom Dixon Road												Г
Green Valley Rd. @ Deer Valley Rd.												Г
Green Valley Rd. @ New Bass Lake Rd.												г
Green Valley Rd. @ Bass Lake Rd.		\Box								$\overline{}$		г
Green Valley Rd. @ Cambridge Rd.										$\overline{}$		г
Green Valley Rd. @ Cameron Park Dr.	\neg	\Box								$\overline{}$		г
El Dorado Hills Blvd. @ Francisco Dr.		\Box										т
El Dorado Hills @ Harvard Way		\Box										Г
El Dorado Hills Blvd. @ Serrano Pkwy.	\neg	\Box										г
El Dorado Hills @ Saratoga Way (N)	\neg	\vdash								$\overline{}$		г
El Dorado Hills @ Saratoga Way (S)	\neg	\vdash		$\overline{}$	2							т
El Dorado Hills @ WB US-50 Ramps	1	\vdash			2					6		т
Latrobe Rd. @EB US-50 Ramps		1	1		8				9			⊢
Silva Valley Pkwy. @ EB US-50 Ramps	\neg	\vdash										т
Silva Valley Pkwy. @ WB US-50 Ramps	$\overline{}$	\vdash								$\overline{}$	-	✝
Silva Valley Pkwy. @ Country Club Dr.	$\overline{}$	\vdash		-	-			-		-	-	┰
Silva Valley Pkw, @ Serrano Pkwy.	-	\vdash		-	-			-			-	\vdash
Silva Valley Pkwy. @ Harvard Way	_	\vdash	-	-	\vdash			_	\vdash		-	⊢
Silva Valley Pkwy. @ Appian Way	-	\vdash		-	\vdash			-	\vdash	\vdash	-	\vdash
Aberdeen Lane @ Appian Way	-	\vdash		\vdash	\vdash			-	\vdash	\vdash	-	\vdash
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Green Valley Rd. @ Site Dwy.												

Traffic Impact Analysis

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Intersection	L	Т	R	L	Т	R	L	Т	R	L	Т	
est Valley Villages 6&7 (WO#26)												
Green Valley Road @ Francisco Dr.	\neg											П
Green Valley Road @ El Dorado Hills Elvd.	$\overline{}$									-	-	т
Green Valley Road @ Silva Valley Pkwy.	$\overline{}$	-	-			-		-	-	-	-	-
Green Valley Road @ Loch Way	-	-	_	-		-	_	-		-	_	Η-
Green Valley Road @ Wilson Estates Connector	-	-	-	-		-	-	-	-	-	-	Н
Green Valley Road @ Malcom Dixon Road	+-	-	-	-		-	-	-		-	-	Н
Green Valley Rd. @ Deer Valley Rd.	_	_		_				-		-	-	Н
Green Valley Rd. @ New Bass Lake Rd.	-	-	-	-		-	-	-	-	-	-	⊢
Green Valley Rd. @ Bass Lake Rd.	-	-	-	-		-	_	-	-	-	-	⊢
Green Valley Rd. @ Cambridge Rd.	-	-	-	-		-	-	-	-	-	-	⊢
Green Valley Rd. @ Cameron Park Dr.	-	-	-	_		-	_	-	-	-	-	⊢
El Dorado Hills Blvd. @ Francisco Dr.	-	-	_	-	_	-	_	_	_	_	_	⊢
El Dorado Hills @ Harvard Way	_	_	_	-	_	_	_	-	_	-	-	⊢
	-	-	-	-	-	-	-	-	-	-	-	⊢
El Dorado Hills Blvd. @ Serrano Pkwy.	-	\vdash	-	-		\vdash	-	_	_		_	\vdash
El Dorado Hills @ Saratoga Way (N)	+	\vdash	-	-		—	_	_	_	-	_	\vdash
El Dorado Hills @ Saratoga Way (S)	200	\vdash	\vdash	-		\vdash	-	-	-	-	-	⊢
El Dorado Hills @ WB US-50 Ramps	28		_	-	_	\vdash	-	-	-	3	-	⊢
Latrobe Rd. @ EB US-50 Ramps	-	28	8	⊢	3	⊢	_	⊢	9	\vdash	⊢	⊢
Silva Valley Pkwy. @ EB US-50 Ramps	-	_	_	_		_	_	-	-	_	_	⊢
Silva Valley Pkwy. @ WB US-50 Ramps	-	—	_	—	_	—	_	—	-	—	—	⊢
Silva Valley Pkvy. @ Country Club Dr.	_	_	_	_		_		—	_	_	_	⊢
Silva Valley Pkwy. @ Serrano Pkwy.	-	—	_	_	_	—	_	—	-	—	_	⊢
Silva Valley Pkwy. @ Harvard Way				_		_		_		_		┡
Silva Valley Pkwy. @ Appian Way	_		_	_		_	_	_	\vdash	_	_	┡
Aberdeen Lane @ Appian Way	-	_	_	_	_	_	_	—	_	_	_	⊢
Green Valley Rd. @ Site Dwy.			_	_		_	_	_	_	_	_	┖
Green Valley Rd. @ Site Dwy.	_							_	_		_	_
romontory Village Center, Lot H (WO#52)												
Green Valley Road @ Francisco Dr.	$\overline{}$	3	_			_					_	Т
Green Valley Road @ El Dorado Hills Elvd.	-	,	-	-		-	1	2	_	-	-	⊢
Green Valley Road @ Silva Valley Pkwy.	-	-	-	-	_	-	-	2	-	-	-	⊢
Green Valley Road @ Loch Way	-	-	_	-	_	-	_	-	-	-	_	⊢
	-	-	-	-	_	-	-	-	-	-	-	⊢
Green Valley Road @ Wilson Estates Connector	+-	⊢	_	—	-	⊢	_	⊢	-		_	⊢
Green Valley Road @ Malcom Dixon Road	-	_	_	-		_	_	├	-		_	⊢
Green Valley Rd. @ Deer Valley Rd.	+	├		-	_	├	_	├	-		-	⊢
Green Valley Rd. @ New Bass Lake Rd.	-	_	-	_		_	_	-	-	-	_	⊢
Green Valley Rd. @ Bass Lake Rd.	-	—	—	—	-	—	_	—	-	—	—	⊢
Green Valley Rd. @ Cambridge Rd.	-	—	—	-	_	—	_	—	-		_	⊢
Green Valley Rd. @ Cameron Park Dr.	-	—	—	—	_	—	_	—	-	—	-	⊢
El Dorado Hills Blvd. @ Francisco Dr.	3	<u> </u>	-	_		_	_	-	-	_	1	⊢
El Dorado Hills @ Harvard Way	_	4	_	_		_	_	—	-	_	_	⊢
El Dorado Hills Blvd. @ Serrano Pkwy.		4			9	3	_	_	_			┡
El Dorado Hills @ Saratoga Way (N)	_	4	_	_	9	_	_	_	-	_	_	┺
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El Dorado Hills @ Saratoga Way (S)		3	_	_	7	2						L
El Dorado Hills @ WB US-50 Ramps	_		_	6	1							L
El Dorado Hills @ WB US-50 Ramps Latrobe Rd. @ EB US-50 Ramps		2	_									ı
El Dorado Hills @ WB US-50 Ramps Latrobe Rd. @ EB US-50 Ramps Silva Valley Pkwy. @ EB US-50 Ramps		2					_	-	_	_	_	
EI Dorado Hills @ WB US-50 Ramps Latrobe Rd. @EB US-50 Ramps Silva Valley Pkwy. @ EB US-50 Ramps Silva Valley Pkwy. @ WB US-50 Ramps		2										L
EI Dorado Hills @ WB US-50 Ramps Latrobe Rd. @ EB US-50 Ramps Silva Valley Pkwy. @ EB US-50 Ramps Silva Valley Pkwy. @ WB US-50 Ramps Silva Valley Pkwy. @ Country Club Dr.		2										E
Ei Dorado Hills @ WB US-50 Ramps Latrobe Rd. @EB US-50 Ramps Silva Valley Pkny. @ EB US-50 Ramps Silva Valley Pkny. @ WB US-50 Ramps Silva Valley Pkny. @ WB US-50 Ramps Silva Valley Pkny. @ Country Club Dr. Silva Valley Pkny. @ Serrano Pkny.		2										
El Dorado Hills @ WB US-50 Ramps Latrobe Rd. @EB US-50 Ramps Silva Valley Pkay. @ EB US-50 Ramps Silva Valley Pkay. @ WB US-50 Ramps Silva Valley Pkay. @ Court Volub Dr. Silva Valley Pkay. @ Court Volub Dr. Silva Valley Pkay. @ Court Ad Way Silva Valley Pkay. @ Carvand Way		2										
El Dorado Hills @ WB US-50 Ramps Latrobe Rd. @EB US-50 Ramps Silva Valley Pkuy, @ EB US-50 Ramps Silva Valley Pkuy, @ WB US-50 Ramps Silva Valley Pkuy, @ WB US-50 Ramps Silva Valley Pkuy, @ Country Club Dr. Silva Valley Pkuy, @ Gerno Pkwy, Silva Valley Pkuy, @ Serano Pkwy, Silva Valley Pkuy, @ Jarvard Way Silva Valley Pkuy, @ Applain Way		2										
El Dorado Hills @ WB US-50 Ramps Latrobe Rd. @EB US-50 Ramps Silva Valley Pkay. @ EB US-50 Ramps Silva Valley Pkay. @ WB US-50 Ramps Silva Valley Pkay. @ Court Volub Dr. Silva Valley Pkay. @ Court Volub Dr. Silva Valley Pkay. @ Court Ad Way Silva Valley Pkay. @ Carvand Way		2										

Traffic Impact Analysis

		NB			SB			EB			WB	
Intersection	L	ΓŦ	R	L	T	R	_	Τ	R	1	Т	П
ratoga Mixed Use Center WO#83)			- IX		_	, K	_	<u> </u>			_	_
Green Valley Road @ Francisco Dr.	$\overline{}$	$\overline{}$										г
Green Valley Road @ El Dorado Hills Elvd.	-	4			7			-	-	-		⊢
Green Valley Road @ Silva Valley Pkwy.	$\overline{}$			-	_	-		-	-	-		⊢
Green Valley Road @ Loch Way	-	-		-		-		-	-	-		⊢
Green Valley Road @ Wilson Estates Connector	$\overline{}$	\vdash		-		-		-	-	-		⊢
Green Valley Road @ Malcom Dixon Road	$\overline{}$	\vdash		-	-	-		-	-	-		⊢
Green Valley Rd. @ Deer Valley Rd.	-	\vdash						-		-		⊢
Green Valley Rd. @ New Bass Lake Rd.	-	-		-		-	_	-	-	-		⊢
Green Valley Rd. @ Bass Lake Rd.	-	\vdash						-	-	-		⊢
Green Valley Rd. @ Cambridge Rd.	-	\vdash		-		-		-	-	-		⊢
Green Valley Rd. @ Cameron Park Dr.	-	-		-		-		-	-	-		⊢
El Dorado Hills Blvd. @ Francisco Dr.	-	4		-	7	-	-	-	-	-		⊢
El Dorado Hills @ Harvard Way	-	4			7			-	-	-		⊢
El Dorado Hills Blvd. @ Serrano Pkwy.	-	4	7	-	7	-	_	-	-	12	-	⊢
El Dorado Hills @ Saratoga Way (N)	114	_	-	-	-	19	11	5	70	12	8	⊢
El Dorado Hills @ Saratoga Way (N) El Dorado Hills @ Saratoga Way (S)	114	114		-	70	19		-	10	\vdash	-	\vdash
El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ WB US-50 Ramps	$\overline{}$	79		-	54	16	35	-	-	\vdash	\vdash	⊢
Latrobe Rd. @EB US-50 Ramps	-	52		22	32	10	35	-	-	-	-	╁
	-	52		22	32	_	_	-	-	-	_	⊢
Silva Valley Pkwy. @ EB US-50 Ramps	-	\vdash		-	_	_	_	-	-	-		⊢
Silva Valley Pkwy. @ WB US-50 Ramps	-	\vdash	_	-	_	-	_	-	-		-	⊢
Silva Valley Pkvy. @ Country Club Dr.	-	\vdash		_		_		<u> </u>	-		-	⊢
Silva Valley Pkwy. @ Serrano Pkwy.	-	\vdash		_	_	_	_	⊢	_	-	-	⊢
Silva Valley Pkwy. @ Harvard Way	$\overline{}$	\vdash		\vdash				\vdash	-	\vdash		⊢
Silva Valley Pkwy. @ Appian Way	$\overline{}$	\vdash		_				_	-			₽
Aberdeen Lane @ Appian Way	_	\vdash		_	_	_	_	<u> </u>	_	\vdash	-	┺
Green Valley Rd. @ Site Dwy. Green Valley Rd. @ Site Dwy.	$\overline{}$	\vdash	_	_	_	_	_	_	-	-		┺
amante Estates												_
Green Valley Road @ Francisco Dr.								2			4	
Green Valley Road @ El Dorado Hills Elvd.		ш	1		1	1		1		4	3	┖
Green Valley Road @ Silva Valley Pkwy.								3			7	
Green Valley Road @ Loch Way								3			7	
Green Valley Road @ Wilson Estates Connector				3		7	3					
Green Valley Road @ Malcom Dixon Road								3			7	
Green Valley Rd. @ Deer Valley Rd.												
Green Valley Rd. @ New Bass Lake Rd.												
Green Valley Rd. @ Bass Lake Rd.												Г
Green Valley Rd. @ Cambridge Rd.												
Green Valley Rd. @ Cameron Park Dr.												
El Dorado Hills Blvd. @ Francisco Dr.		2			6							
El Dorado Hills @ Harvard Way		2			6							
El Dorado Hills Blvd. @ Serrano Pkwy.		2			6							Г
El Dorado Hills @ Saratoga Way (N)		2			6							
El Dorado Hills @ Saratoga Way (S)		2			6							Г
El Dorado Hills @ WB US-50 Ramps		1			1	4						Г
Latrobe Rd. @ EB US-50 Ramps				1								Г
Silva Valley Pkwy. @ EB US-50 Ramps												Г
Silva Valley Pkwy. @ WB US-50 Ramps												Г
Silva Valley Pkwy. @ Country Club Dr.	\neg	$\overline{}$										Г
Silva Valley Pkwy. @ Serrano Pkwy.	\neg	\neg										Г
Silva Valley Pkwy. @ Harvard Way	\neg	\neg										Г
Silva Valley Pkwy. @ Appian Way	\neg	$\overline{}$										г
Aberdeen Lane @ Appian Way	\neg											Н
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Green Valley Rd. @ Site Dwy.										1 1		

Traffic Impact Analysis

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Intersection	L	Т	R	L	Т	R	L	Т	R	L	Т	Т
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Green Valley Road @ Francisco Dr.	$\neg \neg$	$\overline{}$						1			2	Т
Green Valley Road @ El Dorado Hills Elvd.		$\overline{}$								2	1	т
Green Valley Road @ Silva Valley Pkwy.	\neg	-			-			1			3	+
Green Valley Road @ Loch Way	-	_	_	_	-	-	-	1	_	-	3	۰
Green Valley Road @ Wilson Estates Connector	-	-	-	1	-	3	1	<u> </u>	-	-	Ť	۰
Green Valley Road @ Malcom Dixon Road	-	-	-		-	Ť	<u> </u>	1	-	-	3	٠
Green Valley Rd. @ Deer Valley Rd.	_	-		-	-	-		<u> </u>	-	-	Ť	۰
Green Valley Rd. @ New Bass Lake Rd.	-	-	-	-	-	-	-	-	-	-	-	٠
Green Valley Rd. @ Bass Lake Rd.	-	-	-	-	-	-	-	-	-	-	-	٠
Green Valley Rd. @ Cambridge Rd.	-	-	-	-	-	-	-	-	-	-	-	٠
Green Valley Rd. @ Cameron Park Dr.	-	-	-	-	-	-	-	-	-	-	-	٠
El Dorado Hills Blvd. @ Francisco Dr.	-	1	-	-	2	-	-	-	_	-	-	٠
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El Dorado Hills @ Harvard Way	-		-	-		-	-	-		-	-	╄
El Dorado Hills Blvd. @ Serrano Pkwy.	-	1	-	-	2	-	_	—	_			+
El Dorado Hills @ Saratoga Way (N)	-	1	<u> </u>	_	2	_	<u> </u>	_	_	<u> </u>	_	1
El Dorado Hills @ Saratoga Way (S)	-	1	\vdash	_	2	L.	—	_	_	\vdash	_	1
El Dorado Hills @ WB US-50 Ramps	_	_	_	_	_	2	_	_	_	_	_	₽
Latrobe Rd. @EB US-50 Ramps		_	_	_	_	_		_	_	_		L
Silva Valley Pkwy. @ EB US-50 Ramps		_			_	_	_	_				┸
Silva Valley Pkwy. @ WB US-50 Ramps		_			_					_		L
Silva Valley Pkwy. @ Country Club Dr.		_						_				┺
Silva Valley Pkwy. @ Serrano Pkwy.		_				_						┺
Silva Valley Pkwy. @ Harvard Way												L
Silva Valley Pkwy. @ Appian Way												L
Aberdeen Lane @ Appian Way												L
Green Valley Rd. @ Site Dwy.												Ι
Green Valley Rd. @ Site Dwy.												Т
mmerbrook Green Valley Road @ Francisco Dr.								3			8	Τ
Green Valley Road @ El Dorado Hills Elvd.			1					3		2	8	Т
Green Valley Road @ Silva Valley Pkwy.	\neg		2					4		7	11	T
Green Valley Road @ Loch Way	\neg	$\overline{}$						6			18	Т
Green Valley Road @ Wilson Estates Connector	\neg	-			-			6			18	t
Green Valley Road @ Malcom Dixon Road	\neg							6			18	т
Green Valley Rd. @ Deer Valley Rd.	$\overline{}$	-	-		-			6	_	-	18	۰
Green Valley Rd. @ New Bass Lake Rd.	$\overline{}$	-	-	-	-	-		4	1	-	2	۰
Green Valley Rd. @ Bass Lake Rd.	$\overline{}$				-	-		4		-	2	۰
Green Valley Rd. @ Cambridge Rd.	$\overline{}$	-	-	-	-	-	-	3	1		2	۰
Green Valley Rd. @ Cameron Park Dr.	1					-		2	1		1	t
El Dorado Hills Blvd. @ Francisco Dr.		1	-		2	-	-	<u> </u>	<u> </u>		<u> </u>	۰
El Dorado Hills @ Harvard Way	-	l i	-	-	2	-		-	-	-	-	٠
El Dorado Hills Blvd. @ Serrano Pkwy.	-	1	-	-	2	-		-	-	1	-	۰
El Dorado Hills @ Saratoga Way (N)	-	1	-	-	3	-	-	_	-	<u> </u>	_	۰
El Dorado Hills @ Saratoga Way (N)	-	l i	-	-	3	-	-	-	-	-	-	٠
El Dorado Hills @ WB US-50 Ramps	-	+	-	-	-	3	-	-	-	-	-	٠
Latrobe Rd. @EB US-50 Ramps	-	+-	-	-	_	L.	\vdash	_	-	-	_	٠
Silva Valley Pkwy. @ EB US-50 Ramps	-	-	-	3	_	\vdash	1	_	-	-	-	٠
Silva Valley Pkwy. @ EB US-50 Ramps Silva Valley Pkwy. @ WB US-50 Ramps	-	1	-	-	3	3	-	-	-	-	-	٠
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Silva Valley Pkwy. @ Country Club Dr.	-		_	⊢		.	_	⊢	-			╀
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Silva Valley Pkwy. @ Serrano Pkwy.												
Silva Valley Pkwy. @ Serrano Pkwy. Silva Valley Pkwy. @ Harvard Way		2	_	-		_	-	_	_	-	-	+-
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Silva Valley Pkwy. @ Serrano Pkwy. Silva Valley Pkwy. @ Harvard Way								6			18	Ė

Traffic Impact Analysis

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Intersection	L	Т	R	L	Т	R	L	T	R	L	т	Т
rano Village K1/2 PH5				_			_					_
Green Valley Road @ Francisco Dr.								5			15	Т
Green Valley Road @ El Dorado Hills Elvd.								5		-	15	✝
Green Valley Road @ Silva Valley Pkwy.	16	-							5	-		✝
Green Valley Road @ Loch Way		-						-		-		✝
Green Valley Road @ Wilson Estates Connector												t
Green Valley Road @ Malcom Dixon Road										-		т
Green Valley Rd. @ Deer Valley Rd.			3							1		t
Green Valley Rd. @ New Bass Lake Rd.	\neg	-						3			1	t
Green Valley Rd. @ Bass Lake Rd.		-						3		-	1	t
Green Valley Rd. @ Cambridge Rd.	\neg	-						3		-	1	t
Green Valley Rd. @ Cameron Park Dr.								3		-	1	۲
El Dorado Hills Blvd. @ Francisco Dr.		-								-		+
El Dorado Hills @ Harvard Way								-		-		t
El Dorado Hills Blvd. @ Serrano Pkwy.	_	-						-		-		۰
El Dorado Hills @ Saratoga Way (N)	$\overline{}$	-		-		-		-	-	-	-	۰
El Dorado Hills @ Saratoga Way (N)	-	\vdash		-				-	-	-		t
El Dorado Hills @ WB US-50 Ramps	$\overline{}$	\vdash		-		\vdash		-	-		-	۰
Latrobe Rd. @EB US-50 Ramps	-	\vdash		-		-		-	-	-		۰
Silva Valley Pkwy. @ EB US-50 Ramps	-	-		4		-	4	_	-	_	_	۰
Silva Valley Pkwy. @ WB US-50 Ramps	-	4		<u> </u>	4	13		-	-	-	-	٠
Silva Valley Pkwy. @ Country Club Dr.	_	5		-	17	10	_	-	-	-	-	٠
Silva Valley Pkwy. @ Country Club Dr. Silva Valley Pkwy. @ Serrano Pkwy.	_	3	5	-	17			-	-	17	_	₽
Silva Valley Pkwy. @ Harvard Way	_	-	-	-	-	-	_	-	-		-	⊢
Silva Valley Pkwy. @ Appian Way	_	-		5		-		-	-	-	_	⊢
Aberdeen Lane @ Appian Way	_	_		- 5		_	_	-	-	-	_	₽
Green Valley Rd. @ Site Dwy.	_	-	-	-	-	-	_	-	-	-	-	٠
Green Valley Rd. @ Site Dwy.	-	-	-	-	-	-	_	-	-	-	_	₽
rano Village K1/2 PH4 Green Valley Road @ Francisco Dr.		_						4		_	11	т
Green Valley Road @ El Dorado Hills Elvd.	$\overline{}$	-		-		-		4	-	-	11	۰
Green Valley Road @ Silva Valley Pkwy.	12	-		-				-	4	-		۰
Green Valley Road @ Loch Way	12	-	-	-	-	-	_	-	-	-	-	⊢
Green Valley Road @ Wilson Estates Connector	_	-	-	-		-		-	-	-	-	٠
Green Valley Road @ Malcom Dixon Road	_	-		-		-		-	-	-	-	٠
Green Valley Rd. @ Deer Valley Rd.	_	-	3	-	_	-	_	-	-	1	_	⊢
Green Valley Rd. @ New Bass Lake Rd.	$\overline{}$	\vdash	-	-		\vdash		3	-	- '-	1	۰
Green Valley Rd. @ Bass Lake Rd.	-	\vdash		-		\vdash	-	3	-	-	1	٠
Green Valley Rd. @ Cambridge Rd.	-	\vdash		-		\vdash		3	-	_	1	۰
Green Valley Rd. @ Cambridge Rd. Green Valley Rd. @ Cameron Park Dr.	-	\vdash		-		\vdash		3	-	-	1	٠
El Dorado Hills Blvd. @ Francisco Dr.	_	\vdash		-		\vdash		-	-		-	٠
El Dorado Hills @ Harvard Way	_	\vdash		-		\vdash		-	-	-		٠
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El Dorado Hills Blvd. @ Serrano Pkwy. El Dorado Hills @ Saratoga Way (N)	-	\vdash	-	-		\vdash	_	-	-	-	-	٠
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El Dorado Hills @ Saratoga Way (S)	-	\vdash	-	-	$\overline{}$	\vdash		-	\vdash	-	_	٠
El Dorado Hills @ WB US-50 Ramps	-	\vdash	-	—	$\overline{}$	\vdash		-	\vdash		_	+
Latrobe Rd. @EB US-50 Ramps	_	\vdash		-		\vdash	3	\vdash	-	-	_	⊢
Silva Valley Pkwy. @ EB US-50 Ramps	-	_	_	3	-	40	3	-	\vdash	_	_	۰
Silva Valley Pkwy. @ WB US-50 Ramps	-	3	-	—	3	10	_			_	_	۰
Silva Valley Pkwy. @ Country Club Dr.	-	4		—	13	⊢	_	⊢	—	40	_	₽
Silva Valley Pkwy. @ Serrano Pkwy.	_	<u> </u>	4	-	_	<u> </u>	_		—	13	_	1
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Silva Valley Pkwy. @ Harvard Way	_	_	_									
Silva Valley Pkwy. @ Harvard Way Silva Valley Pkwy. @ Appian Way				4								L
Silva Valley Pkwy. @ Harvard Way				4								E

Traffic Impact Analysis

	\neg	NB			SB			EB			WB	
Intersection	L	Т	R	L	Т	R	L	T	R	1	Т	Т
anno Village M2												_
Green Valley Road @ Francisco Dr.								5			16	Τ
Green Valley Road @ El Dorado Hills Elvd.								5			16	T
Green Valley Road @ Silva Valley Pkwy.	17								5			Т
Green Valley Road @ Loch Way	$\overline{}$											T
Green Valley Road @ Wilson Estates Connector	\neg											t
Green Valley Road @ Malcom Dixon Road	-											Т
Green Valley Rd. @ Deer Valley Rd.	\neg		4							1		T
Green Valley Rd. @ New Bass Lake Rd.	\neg							4			1	t
Green Valley Rd. @ Bass Lake Rd.	\neg							4			1	T
Green Valley Rd. @ Cambridge Rd.	$\overline{}$							4		-	1	t
Green Valley Rd. @ Cameron Park Dr.	-							4			1	T
El Dorado Hills Blvd. @ Francisco Dr.	-	-								-		۲
El Dorado Hills @ Harvard Way	$\overline{}$									-		t
El Dorado Hills Blvd. @ Serrano Pkwy.	$\overline{}$	-						-		-		۲
El Dorado Hills @ Saratoga Way (N)	$\overline{}$	\vdash	-									t
El Dorado Hills @ Saratoga Way (S)	-											t
El Dorado Hills @ WB US-50 Ramps	$\overline{}$		-									٢
Latrobe Rd. @ EB US-50 Ramps	-		_					_		-	-	۰
Silva Valley Pkwy. @ EB US-50 Ramps	-	-		5			5	-		-		t
Silva Valley Pkwy. @ WB US-50 Ramps	-	5	-	Ť	5	14	Ť	-	-	-	-	۰
Silva Valley Pkw. @ Country Club Dr.	-	7	-	-	19			-	-	-	-	۰
Silva Valley Pkwy. @ Serrano Pkwy.	-	7	-	-	19			-	-	-	-	۰
Silva Valley Pkwy. @ Harvard Way	+	7	-	-	19	-		-	-	-	-	۰
Silva Valley Pkwy. @ Appian Way	_	<u> </u>	7	5		-		-	-	19	-	۰
Aberdeen Lane @ Appian Way	-	_	<u> </u>	Ť						-10	-	۰
Green Valley Rd. @ Site Dwy.	-	-	-	-		-	-	-	-	-	-	۰
Green Valley Rd. @ Site Dwy.	-	-	-	-	-	-	-	-	-	-	-	٠
nno Village M5 Green Valley Road @ Francisco Dr.	_	_	_	_				1	_	_	5	_
Green Valley Road @ El Dorado Hills Elvd.	-	-	-	-		-		1	-	-	5	۰
Green Valley Road @ Silva Valley Pkwr.	5	-	-	-		-	-	<u> </u>	1	-	۰	٠
Green Valley Road @ Loch Way		-	-	-	-	-	-	-	<u> </u>	-	-	٠
Green Valley Road @ Wilson Estates Connector	-	-	-	-	-	-	-	-	-	-	-	٠
Green Valley Road @ Malcom Dixon Road	-	-	-	-		-	-	-	-	-	-	٠
Green Valley Rd. @ Deer Valley Rd.	-	-	1	-	_	-	-	-	-	-	-	٠
Green Valley Rd. @ New Bass Lake Rd.	-	\vdash	-	-	$\overline{}$	\vdash		1	-	-	-	٠
Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Bass Lake Rd.	-	-	-	-	-	\vdash		1	-	-	-	٠
Green Valley Rd. @ Cambridge Rd.	-	\vdash	-	-	$\overline{}$	\vdash	-	+	-	_	-	٠
Green Valley Rd. @ Cambridge Rd. Green Valley Rd. @ Cameron Park Dr.	-	\vdash	-	-		\vdash		1	-	_	_	٠
El Dorado Hills Blvd. @ Francisco Dr.	-	\vdash	-	-		\vdash		<u> </u>	-	_	_	٠
El Dorado Hills @ Harvard Way	-	\vdash	\vdash	-		\vdash		-	-	-	-	٠
El Dorado Hills @ Harvard Way El Dorado Hills Blvd. @ Serrano Pkwy.	-	\vdash	-	-		\vdash		-	-	_	_	٠
El Dorado Hills Blvd. @ Serrano Pkwy. El Dorado Hills @ Saratoga Way (N)	-	\vdash	-	-		\vdash		-	-	_	-	٠
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El Dorado Hills @ Saratoga Way (S)	-	\vdash	-	-	-	\vdash	-	-	\vdash	_	-	۰
El Dorado Hills @ WB US-50 Ramps	-	\vdash	-	—	$\overline{}$	\vdash	-	—	\vdash	-		₽
Latrobe Rd. @EB US-50 Ramps	-	—	_	-	_	-	-	—	—	-		۰
Silva Valley Pkwy. @ EB US-50 Ramps Silva Valley Pkwy. @ WB US-50 Ramps	-	1	-	1	1	.	1	-	\vdash	_	-	٠
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Silva Valley Pkwy. @ Country Club Dr.					5	-	-	_	<u> </u>	_	_	۰
Silva Valley Pkwy. @ Country Club Dr. Silva Valley Pkwy. @ Serrano Pkwy.	$\overline{}$	1	_									
Silva Valley Pkwy. @ Country Club Dr. Silva Valley Pkwy. @ Serrano Pkwy. Silva Valley Pkwy. @ Harvard Way		1	_		5		-	_	_	-	_	₽
Silva Valley Pkwy. @ Country Club Dr. Silva Valley Pkwy. @ Serrano Pkwy. Silva Valley Pkwy. @ Harvard Way Silva Valley Pkwy. @ Appian Way			1	1	5					5		t
Silva Valley Pkwy. @ Country Club Dr. Silva Valley Pkwy. @ Serrano Pkwy. Silva Valley Pkwy. @ Harvard Way			1	1	5					5		Ė

Intersection			NB			SB			EB			WB	
		L	Т	R	L	T	R	L	Т	R	L	T	R
Green Valley Road @ Francisco Dr.	2013	308	248	17	105	205	200	418	689	314	141	433	67
Green Valley Road @ El Dorado Hills Blvd.	2013	55	153	57	49	70	94	114	758	24	30	460	77
Green Valley Road @ Silva Valley Pkwy.	2013	211	15	56	2	7	2	6	585	268	34	349	3
Green Valley Road @ Loch Way	2013	21	0	4	0	0	0	0	641	27	- 4	357	0
Green Valley Road @ Wilson Estates Connector	FUTURE								645			361	
Green Valley Road @ Malcom Dixon Road	2013	0	0	0	10	0	14	12	638	0	0	353	5
Green Valley Rd. @ Deer Valley Rd.	2013	8	1	11	7	0	14	45	592	18	16	339	7
Green Valley Rd. @ Silver Springs Pkwy	FUTURE								665			370	
Green Valley Rd. @ Bass Lake Rd.	2013	60	6	177	15	6	11	2	549	114	110	299	8
Green Valley Rd. @ Cambridge Rd.	2013	95	4	69	7	4	12	24	571	140	43	311	8
Green Valley Rd. @ Cameron Park Dr.	2013	217	112	130	28	83	17	78	273	254	83	138	15
El Dorado Hills Blvd. @ Francisco Dr.	2013	504	281	19	9	156	2	0	41	449	26	35	40
El Dorado Hills @ Harvard Way	2013	0	844	184	162	539	0	0	0	0	141	0	12
El Dorado Hills Blvd. @ Serrano Pkwy.	2013	120	1241	535	24	745	46	25	18	46	2:4	33	18
El Dorado Hills @ Saratoga Way (N)	2013	94	1530	77	158	827	27	31	19	75	43	11	30
El Dorado Hills @ Saratoga Way (S)	2013	0	1577	320	61	910	0	0	0	0	247	0	82
El Dorado Hills @ WB US-50 Ramps	2013	1137	1735	0	0	601	507	0	0	0	343	1	23
Latrobe Rd. @ EB US-50 Ramps	2013	0	1844	720	200	690	0	0	0	774	0	0	102
Silva Valley Pkwy. @ EB US-50 Ramps	FUTURE												
Silva Valley Pkwy. @ WB US-50 Ramps	FUTURE												
Silva Valley Pkwy. @ Country Club Dr.	FUTURE												$\overline{}$
Silva Valley Pkwy. @ Serrano Pkwy.	2013	74	265	222	170	170	76	85	331	39	131	184	14
Silva Valley Pkwy. @ Harvard Way	2013	177	284	10	9	195	67	121	10	185		10	5
Silva Valley Pkwy. @ Appian Way	2013	70	243	89	47	191	29	17	4	39	56	2	4
Green Valley Rd. @ Site Dwy RIRO									648			358	$\overline{}$
Green Valley Rd. @ Site Dwy. Full	2013								648		$\overline{}$	358	-

Existing plus Proposed Project Volumes - PM	Peak											
Intersection		NB			SB			EB			WB	
intersection	L	Т	R	L	Т	R	L	Т	R	L	T	R
Green Valley Road @ Francisco Dr.	308	248	17	105	205	200	418	795	314	141	496	67
Green Valley Road @ El Dorado Hills Blvd.	55	153	163	55	70	94	114	864	24	93	523	81
Green Valley Road @ Silva Valley Pkwy.	211	15	71	2	7	2	6	804	268	43	479	3
Green Valley Road @ Loch Way	21	0	4	0	0	0	0	875	27	4	496	0
Green Valley Road @ Wilson Estates Connector	0	0	0	0	0	0	0	879	0	0	500	0
Green Valley Road @ Malcom Dixon Road	0	0	0	10	0	14	12	872	0	0	492	5
Green Valley Rd. @ Deer Valley Rd.	8	1	11	7	0	14	45	633	18	16	409	7
Green Valley Rd. @ Silver Springs Pkwy	0	0	0	0	0	0	0	706	0	0	440	0
Green Valley Rd. @ Bass Lake Rd.	72	6	177	15	6	11	2	583	121	110	357	8
Green Valley Rd. @ Cambridge Rd.	107	4	69	7	4	12	24	598	147	43	357	8
Green Valley Rd. @ Cameron Park Dr.	238	112	130	28	83	17	78	287	267	83	162	15
El Dorado Hills Blvd. @ Francisco Dr.	504	387	19	9	219	2	0	41	449	26	35	40
El Dorado Hills @ Harvard Way	0	950	184	162	602	0	0	0	0	141	0	125
El Dorado Hills Blvd. @ Serrano Pkwy.	120	1347	550	24	808	46	25	18	46	283	33	18
El Dorado Hills @ Saratoga Way (N)	94	1652	77	158	899	27	31	19	75	43	11	304
El Dorado Hills @ Saratoga Way (S)	0	1699	320	61	982	0	0	0	0	247	0	82
El Dorado Hills @ WB US-50 Ramps	1137	1826	0	0	619	561	0	0	0	343	1	265
Latrobe Rd. @ EB US-50 Ramps	0	1844	720	218	690	0	0	0	774	0	0	1114
Silva Valley Pkwy. @ EB US-50 Ramps	0	0	0	0	0	0	0	0	0	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	0	0	0	0	0	0	0	0	0	0	0	0
Silva Valley Pkwy. @ Country Club Dr.	0	0	0	0	0	0	0	0	0	0	0	0
Silva Valley Pkwy. @ Serrano Pkwy.	74	265	222	170	170	85	100	331	39	131	184	143
Silva Valley Pkwy. @ Harvard Way	177	299	10	9	204	67	121	10	185	8	10	5
Silva Valley Pkwy. @ Appian Way	70	258	89	47	200	29	17	4	39	56	2	43
Green Valley Rd. @ Site Dwy RIRO	0	0	14	0	0	0	0	765	117	0	497	0
Green Valley Rd. @ Site Dwy. Full	139	0	28	0	0	0	0	662	117	70	358	0

Kimley-Hom and Associates, Inc. Appendix D 3/19/2013 Kimley-Hom and Associates, Inc. Appendix D 5/92013 Kimley-Hom and Associates, Inc. Appendix D

Intersection		NB			SB			EB			WB	- CA
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Green Valley Road @ Francisco Dr.	348	252	17	105	210	200	426	893	314	150	535	68
Green Valley Road @ El Dorado Hills Blvd.	55	214	92	59	101	109	138	957	24	51	567	92
Green Valley Road @ Silva Valley Pkwy.	282	18	106	2	9	4	9	713	382	64	420	3
Green Valley Road @ Loch Way	21	0	4	0	0	0	0	810	27	4	453	0
Green Valley Road @ Wilson Estates Connector	0	0	0	8	0	19	31	783	0	0	438	12
Green Valley Road @ Malcom Dixon Road	0	0	0	10	0	14	12	807	0	0	449	5
Green Valley Rd. @ Deer Valley Rd.	8	1	23	7	0	14	45	730	18	39	416	7
Green Valley Rd. @ Silver Springs Pkwy	67	0	17	0	0	0	0	680	114	29	402	0
Green Valley Rd. @ Bass Lake Rd.	61	- 6	177	15	6	11	2	581	114	110	359	- 8
Green Valley Rd. @ Cambridge Rd.	102	4	69	7	4	12	24	600	143	43	364	8
Green Valley Rd. @ Cameron Park Dr.	229	112	130	28	83	17	78	294	262	83	179	15
I Dorado Hills Blvd. @ Francisco Dr.	535	371	19	9	202	2	0	41	497	26	36	40
El Dorado Hills @ Harvard Way	0	939	184	162	585	0	0	0	0	141	0	125
El Dorado Hills Blvd. @ Serrano Pkwy.	120	1355	591	24	812	49	25	18	46	305	33	18
I Dorado Hills @ Saratoga Way (N)	295	1627	78	158	883	62	86	27	210	43	22	304
El Dorado Hills @ Saratoga Way (S)								$\overline{}$				
I Dorado Hills @ WB US-50 Ramps												$\overline{}$
Latrobe Rd. @ EB US-50 Ramps								$\overline{}$				$\overline{}$
Silva Valley Pkwy. @ EB US-50 Ramps												
Silva Valley Pkwy. @ WB US-50 Ramps												
Silva Valley Pkwy. @ Country Club Dr.		-										$\overline{}$
Silva Valley Pkwy. @ Serrano Pkwy.		-		-							-	$\overline{}$
Silva Valley Pkwy. @ Harvard Way	177	397	10	9	285	67	121	10	185	8	10	- 5
Silva Valley Pkwy. @ Appian Way	70	313	132	115	255	29	17	4	39	82	2	83
Green Valley Rd. @ Site Dwy RIRO	0	0	0	0	0	0	0	778	0	0	435	0
Green Valley Rd. @ Site Dwy. Full	0	0	0	0	0	Ò	0	778	0	0	435	0

Intersection		NB			SB			EB			WB	
intersection	L	T	R	L	_	R	L	Т	R	L	Т	R
Green Valley Road @ Francisco Dr.	348	252	17	105	210	200	426	893	314	150	535	- 68
Green Valley Road @ El Dorado Hills Blvd.	55	214	92	59	101	109	138	957	24	51	567	93
Green Valley Road @ Silva Valley Pkwy.	282	18	106	2	9	4	9	713	382	64	420	3
Green Valley Road @ Loch Way	21	0	4	0	0	0	0	810	27	4	453	
Green Valley Road @ Wilson Estates Connector	0	0	0	8	0	19	31	783	0	0	438	1
Green Valley Road @ Malcom Dixon Road	0	0	0	10	0	14	12	807	0	0	449	1 5
Green Valley Rd. @ Deer Valley Rd.	8	1	23	7	0	14	45	730	18	39	416	7
Green Valley Rd. @ Silver Springs Pkwy	67	0	17	0	0	0	0	680	114	29	402	
Green Valley Rd. @ Bass Lake Rd.	71	7	210	18	7	13	2	584	121	117	318	
Green Valley Rd. @ Cambridge Rd.	101	4	73	7	4	13	27	644	158	46	329	
Green Valley Rd. @ Cameron Park Dr.	235	121	141	28	84	17	87	304	283	86	143	1
El Dorado Hills Blvd. @ Francisco Dr.	535	371	19	9	202	2	0	41	497	26	36	1
El Dorado Hills @ Harvard Way	0	939	184	162	585	0	0	0	0	141	0	1
El Dorado Hills Blvd. @ Serrano Pkwy.	120	1305	591	24	1086	49	25	18	46	345	33	1
El Dorado Hills @ Saratoga Way (N)	295	1627	78	158	1207	62	86	27	210	43	22	3
El Dorado Hills @ Saratoga Way (S)	987	1687	286	54	985	421	212	70	302	212	155	9
El Dorado Hills @ WB US-50 Ramps				1				"				1
atrobe Rd. @ EB US-50 Ramps	0	1929	619	527	972	0	0	0	1423	0	0	10
Silva Valley Pkwy. @ EB US-50 Ramps	0	919	743	848	1033	0	482	0	184	0	0	
Silva Valley Pkwy. @ WB US-50 Ramps	324	1077	0	0	977	343	0	0	0	946	0	5
Silva Valley Pkwy. @ Country Club Dr.	0	1348	263	0	1288	0	0	0	0	32	0	2
Silva Valley Pkw. @ Serrano Pkwy.	192	692	374	223	443	112	175	227	175	361	111	1
Silva Valley Pkwy. @ Harvard Way	226	363	13	12	257	88	164	14	251	9	11	т
Silva Valley Pkwy. @ Appian Way	70	313	132	115	255	29	17	4	39	82	2	1
Green Valley Rd. @ Site Dwy RIRO	0	0	0	0	0	0	0	778	0	0	435	т
Green Valley Rd. @ Site Dwy. Full	0	0	ō	Ö	ŏ	0	0	778	0	0	435	_

Existing plus Approved Project plus Prop	osed Proj	ect V	olum	es -	РМ Р	eak						
Intersection		NB			SB			EB			WB	
Intersection	L	T	R	L	T	R	L	T	R	L	T	R
Green Valley Road @ Francisco Dr.	348	252	17	105	210	200	426	999	314	150	598	68
Green Valley Road @ El Dorado Hills Blvd.	55	214	122	65	101	109	138	1063	24	69	630	96
Green Valley Road @ Silva Valley Pkwy.	282	18	197	2	9	4	9	856	382	118	505	3
Green Valley Road @ Loch Way	21	0	4	0	0	0	0	1044	27	4	592	0
Green Valley Road @ Wilson Estates Connector	0	0	0	8	0	19	31	1017	0	0	577	12
Green Valley Road @ Malcom Dixon Road	0	0	0	10	0	14	12	1041	0	0	588	5
Green Valley Rd. @ Deer Valley Rd.	8	1	23	7	0	14	45	771	18	39	486	7
Green Valley Rd. @ Silver Springs Pkwy	79	0	17	0	0	0	0	714	121	29	460	0
Green Valley Rd. @ Bass Lake Rd.	71	7	210	18	7	13	2	618	121	117	376	8
Green Valley Rd. @ Cambridge Rd.	113	4	73	7	4	13	27	671	165	46	375	8
Green Valley Rd. @ Cameron Park Dr.	256	121	141	28	84	17	87	318	296	86	167	16
El Dorado Hills Blvd. @ Francisco Dr.	535	401	19	9	220	2	0	41	497	26	36	40
El Dorado Hills @ Harvard Way	0	969	184	162	603	0	0	0	0	141	0	125
El Dorado Hills Blvd. @ Serrano Pkwy.	120	1335	606	24	1104	49	25	18	46	314	33	18
El Dorado Hills @ Saratoga Way (N)	295	1673	78	158	1234	62	86	27	210	43	22	304
El Dorado Hills @ Saratoga Way (S)	987	1733	286	54	1012	443	212	70	302	212	155	91
El Dorado Hills @ WB US-50 Ramps												
Latrobe Rd. @ EB US-50 Ramps	0	1929	619	527	972	0	0	0	1423	0	0	1077
Silva Valley Pkwy. @ EB US-50 Ramps	0	919	743	848	1033	0	528	0	184	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	324	1123	0	0	995	370	0	0	0	946	0	564
Silva Valley Pkwy. @ Country Club Dr.	0	1424	263	0	1333	0	0	0	0	32	0	205
Silva Valley Pkwy, @ Serrano Pkwy,	192	768	374	223	488	121	190	227	175	361	111	145
Silva Valley Pkwy. @ Harvard Way	226	454	13	12	311	88	164	14	251	9	11	6
Silva Valley Pkwy. @ Appian Way	70	404	132	115	309	29	17	4	39	82	2	83
Green Valley Rd. @ Site Dwy RIRO	0	0	14	0	0	0	0	895	117	0	574	0
Green Valley Rd. @ Site Dwy, Full	139	0	28	0	0	0	0	792	117	70	435	0

Intersection		NB			SB			EB			WB	
intersection	L	T	R	L	T	R	L	T	R	L	Т	R
Green Valley Road @ Francisco Dr.	322	264	19	123	227	227	485	813	353	195	608	98
Green Valley Road @ El Dorado Hills Blvd.	73	184	74	68	97	131	137	957	36	44	659	100
Green Valley Road @ Silva Valley Pkwy.	349	20	96	2	9	2	10	809	361	47	469	6
Green Valley Road @ Loch Way	26	0	5	0	0	0	0	829	33	- 5	464	0
Green Valley Road @ Wilson Estates Connector	0	0	0	0	0	0	0	835	0	0	467	0
Green Valley Road @ Malcom Dixon Road	0	0	0	12	0	18	15	826	0	0	457	- 6
Green Valley Rd. @ Deer Valley Rd.	18	2	16	10	0	21	51	719	26	23	413	8
Green Valley Rd. @ Silver Springs Pkwy	0	0	0	0	0	0	0	833	0	0	464	0
Green Valley Rd. @ Bass Lake Rd.	87	9	253	22	9	16	3	638	131	124	347	9
Green Valley Rd. @ Cambridge Rd.	119	5	72	8	5	15	31	732	189	47	346	9
Green Valley Rd. @ Cameron Park Dr.	256	137	159	32	89	19	108	345	319	91	150	18
I Dorado Hills Blvd. @ Francisco Dr.	531	311	24	9	173	2	0	39	476	28	36	43
El Dorado Hills @ Harvard Way	0	875	232	189	525	0	0	0	0	178	0	15
Dorado Hills Blvd. @ Serrano Pkwy.	108	1308	595	38	779	56	35	27	47	337	51	34
El Dorado Hills @ Saratoga Way (N)	122	2000	110	165	906	30	38	24	94	56	17	37
El Dorado Hills @ Saratoga Way (S)	0	2060	422	67	999	0	0	0	0	309	0	10
El Dorado Hills @ WB US-50 Ramps	1077	1850	298	56	1260	364	223	73	272	221	161	95
atrobe Rd. @ EB US-50 Ramps	0	2163	573	674	1079	0	0	0	1718	0	0	106
Silva Valley Pkwy. @ EB US-50 Ramps	1024	1235	0	0	1413	766	578	0	201	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	468	1345	0	0	1183	383	0	0	0	998	0	57
Silva Valley Pkwy. @ Country Club Dr.	0	1513	410	0	1517	0	0	0	0	49	0	32
Silva Valley Pkwy. @ Serrano Pkwy.	200	894	460	232	574	117	182	237	186	439	116	15
Silva Valley Pkwy. @ Harvard Way	341	550	19	14	307	105	245	20	374	10	12	6
Silva Valley Pkwy. @ Appian Way	111	398	141	66	271	41	21	5	48	69	2	- 53
Green Valley Rd. @ Site Dwy RIRO	0	0	0	0	0	0	0	807	0	0	484	0
Green Valley Rd. @ Site Dwy. Full	0	0	0	0	0	0	0	807	0	0	484	0

Intersection		NB			SB			EB			WB	
	L	T	R	L		R	L	T	R	L		F
Green Valley Road @ Francisco Dr.	322	264	19	123	227	227	485	813	353	195	608	9
Green Valley Road @ El Dorado Hills Blvd.	73	184	74	68	97	131	137	957	36	44	659	10
Green Valley Road @ Silva Valley Pkwy.	349	20	96	2	9	2	10	809	361	47	469	1
Green Valley Road @ Loch Way	26	0	- 5	0	0	0	0	829	33	- 5	464	
Green Valley Road @ Wilson Estates Connector	0	0	0	8	0	19	0	835	0	0	467	
Green Valley Road @ Malcom Dixon Road	0	0	0	12	0	18	15	826	0	0	457	
Green Valley Rd. @ Deer Valley Rd.	18	2	23	10	0	21	51	730	26	39	416	
Green Valley Rd. @ Silver Springs Pkwy	79	0	17	0	0	0	0	833	0	0	464	
Green Valley Rd. @ Bass Lake Rd.	87	9	253	22	9	16	3	638	131	124	347	
Green Valley Rd. @ Cambridge Rd.	109	5	79	8	5	14	31	745	183	49	354	П
Green Valley Rd. @ Cameron Park Dr.	256	137	159	32	89	19	108	345	319	91	150	Т
El Dorado Hills Blvd. @ Francisco Dr.	535	371	24	9	202	2	0	39	497	28	36	1
El Dorado Hills (2) Harvard Way	0	939	232	189	585	0	0	0	0	178	0	1
El Dorado Hills Blvd. @ Serrano Pkwy.	120	1582	705	38	1320	56	35	27	112	317	51	13
El Dorado Hills (2) Saratoga Way (N)	295	1944	101	173	1534	62	86	27	210	53	22	3
El Dorado Hills @ Saratoga Way (S)	1077	2022	298	56	1320	421	223	73	272	221	161	1
El Dorado Hills (2) WB US-50 Ramps												г
Latrobe Rd. @ EB US-50 Ramps	0	2335	619	674	1139	0	0	0	1718	0	0	10
Silva Valley Pkwy. @ EB US-50 Ramps	1024	1235	0	0	1413	765	578	0	201	0	0	т
Silva Valley Pkwy. @ WB US-50 Ramps	468	1345	0	0	1183	383	0	0	0	918	0	5
Silva Valley Pkwy. @ Country Club Dr.		1513	410	0	1517	0	0	0	0	49	0	3
Silva Valley Pkwy. @ Serrano Pkwy.	200	894	460	232	574	117	182	237	186	439	116	1
Silva Valley Pkwy. @ Harvard Way	341	550	19	14	307	105	245	20	374	10	12	т
Silva Valley Pkwy. @ Appian Way	111	396	141	115	271	41	21	5	48	82	2	1
Green Valley Rd. @ Site Dwy RIRO	0	0	0	0	0	0	0	807	0	0	484	т
Green Valley Rd. @ Site Dwy, Full	0	0	0	0	Ó	0	0	807	0	0	484	_

Cumulative plus Proposed Project Volume	s - PM Pe	ak										
Intersection		NB			SB			EB			WB	
intersection	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Green Valley Road @ Francisco Dr.	322	264	19	123	227	227	485	919	353	195	671	98
Green Valley Road @ El Dorado Hills Blvd.	73	184	104	74	97	131	137	1063	36	62	722	104
Green Valley Road @ Silva Valley Pkwy.	349	20	187	2	9	2	10	952	361	101	554	6
Green Valley Road @ Loch Way	26	0	5	0	0	0	0	1063	33	5	603	0
Green Valley Road @ Wilson Estates Connector	0	0	0	8	0	19	0	1069	0	0	606	0
Green Valley Road @ Malcom Dixon Road	0	0	0	12	0	18	15	1060	0	0	596	6
Green Valley Rd. @ Deer Valley Rd.	18	2	23	10	0	21	51	771	26	39	486	8
Green Valley Rd. @ Silver Springs Pkwy	91	0	17	0	0	0	0	867	7	0	522	0
Green Valley Rd. @ Bass Lake Rd.	87	9	253	22	9	16	3	672	131	124	405	9
Green Valley Rd. @ Cambridge Rd.	121	5	79	8	5	14	31	772	190	49	400	9
Green Valley Rd. @ Cameron Park Dr.	277	137	159	32	89	19	108	359	332	91	174	18
El Dorado Hills Blvd. @ Francisco Dr.	535	401	24	9	220	2	0	39	497	28	36	43
El Dorado Hills @ Harvard Way	0	969	232	189	603	0	0	0	0	178	0	156
El Dorado Hills Blvd. @ Serrano Pkwy.	120	1612	720	38	1338	56	35	27	112	346	51	34
El Dorado Hills @ Saratoga Way (N)	295	1990	101	173	1561	62	86	27	210	53	22	377
El Dorado Hills @ Saratoga Way (S)	1077	2068	298	56	1320	443	223	73	272	221	161	95
El Dorado Hills @ WB US-50 Ramps												
Latrobe Rd. @ EB US-50 Ramps	0	2335	619	674	1139	0	0	0	1718	0	0	1108
Silva Valley Pkwy. @ EB US-50 Ramps	1024	1235	0	0	1413	784	624	0	201	0	0	0
Silva Valley Pkwy. @ WB US-50 Ramps	468	1391	0	0	1201	41)	0	0	0	918	0	608
Silva Valley Pkwy. @ Country Club Dr.	0	1589	410	0	1562	0	0	0	0	49	0	320
Silva Valley Pkwy. @ Serrano Pkwy.	200	970	460	232	619	125	197	237	186	439	116	151
Silva Valley Pkwy. @ Harvard Way	341	641	19	14	361	105	245	20	374	10	12	6
Silva Valley Pkwy. @ Applan Way	111	489	141	115	325	41	21	5	48	82	2	83
Green Valley Rd. @ Site Dwy RIRO	0	0	14	0	0	0	0	924	117	0	623	0
Green Valley Rd. @ Site Dwy. Full	139	0	28	0	0	0	0	821	117	70	484	0

Intersection		NB			SB			EB			WB	
intersection	L	Т	R	L	Т	R	L	Т	R	L	Т	1
essara Development												
Green Valley Road @ Francisco Dr.	\neg	г			$\overline{}$							П
Green Valley Road @ El Dorado Hills Blvd.					$\overline{}$							
Green Valley Road @ Silva Valley Pkwy.	\neg	-			-		-					
Green Valley Road @ Loch Way					-							
Green Valley Road @ Wilson Estates Connector	$\overline{}$	-			-	_	-		-		-	_
Green Valley Road @ Malcom Dixon Road	$\overline{}$	-			-	-	-	-	-	-	-	
Green Valley Rd. @ Deer Valley Rd.	-	-			-	-	-	-	-		-	
Green Valley Rd. @ New Bass Lake Rd.	-	-	-	-	-	-	-	-	-	-	-	
Green Valley Rd. @ Bass Lake Rd.	-	-	-	-	-	-	-	-	-	-	-	-
Green Valley Rd. @ Cambridge Rd.	-	-	-	-	-	-	-	-	-	-	-	-
Green Valley Rd. @ Cameron Park Dr.	_	-	-	-	-	-	-	-	-		-	-
El Dorado Hills Blvd. @ Francisco Dr.	-	-	-	-	-	-	-	-	-	-	-	-
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El Dorado Hills @ Harvard Way	_	-	_	_	-	-	-	_	-	_	-	-
El Dorado Hills Blvd. @ Serrano Pkwy.	_	-			_	-	-	_	_		-	
El Dorado Hills @ Saratoga Way (N)	2		1		2	-	-	_	5		-	_
El Dorado Hills @ Saratoga Way (S)		3	$\overline{}$		7	_	_		_	1	_	_
El Dorado Hills @ WB US-50 Ramps	- 8	4			8	_	_	_	_	11	_	_
Latrobe Rd. @ EB US-50 Ramps		26	12		4	_	_		4		_	
Silva Valley Pkwy. @ EB US-50 Ramps		_			_	_	_			$\overline{}$	_	
Silva Valley Pkwy. @ WB US-50 Ramps												
Silva Valley Pkwy. @ Country Club Dr.												
Silva Valley Pkwy. @ Serrano Pkwy.												
Silva Valley Pkwy. @ Harvard Way												
Silva Valley Pkwy. @ Appian Way												1
Aberdeen Lane @ Appian Way												
Green Valley Rd. @ Site Dwy.												
Green Valley Rd. @ Site Dwy.												
Green Valley Road @ Francisco Dr. Green Valley Road @ El Dorado Hills Blvd.	=	-										F
Green Valley Road @ Silva Valley Pkwy.	$\overline{}$	-			-	-	-		-		-	
Green Valley Road @ Loch Way	$\overline{}$	-			-							
Green Valley Road @ Wilson Estates Connector	-	-			-							
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Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Bass Lake Rd. Green Valley Rd. @ Bass Lake Rd. Green Valley Rd. @ Cambridge Rd. Green Valley Rd. @ Cambridge Rd. Green Valley Rd. @ Cambridge Rd. El Dorado Hills Bivd. @ Francisco Dx.												
Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Bass Lake Rd. Green Valley Rd. @ Cambridge Rd. Green Valley Rd. @ Cameron Park Dr. El Dorado Hills Blvd. @ Francisco Dx. El Dorado Hills @ Harvard Way												
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Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Cambridge Rd. El Dorado Hills @ Hard Rd. El Dorado Hills @ Ward Rd. El Dorado Hills @ Saratoga Way (N) El Dorado Hills @ Saratoga Way (N) El Dorado Hills @ Saratoga Way (S)	4	8 8			11 11					11		7
Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Bass Lake Rd. Green Valley Rd. @ Cambridge Rd. El Dorado Hills Blvd. @ Francisco Dr. El Dorado Hills Blvd. @ Francisco Dr. El Dorado Hills Blvd. @ Serrano Pkwy. El Dorado Hills @ Wardow Way (N) El Dorado Hills @ Saratopa Way (N) El Dorado Hills @ Saratopa Way (S) El Dorado Hills @ Wardopa Way (S) El Dorado Hills @ Wardopa Way (S)	4	8	9		11				3	11		
Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Cambridge Rd. El Dorado Hills @ Harvard Way El Dorado Hills @ Harvard Way El Dorado Hills @ Wardoga Way (N) El Dorado Hills @ Saratoga Way (N) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Wardoga Way (S) El Dorado Hills @ Wardoga Way (S) El Dorado Hills @ Wardoga May (S) El Dorado Hills @ Wardoga May (S)	4		9						3	11		
Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Sams Lake Rd. Green Valley Rd. @ Cambridge Rd. Green Valley Rd. Green Va	4	8	9		11				3	11		
Green Valley Rd. © Deer Valley Rd. Green Valley Rd. © New Bass Lake Rd. Green Valley Rd. © New Bass Lake Rd. Green Valley Rd. © East Marker Green Valley Rd. © Cambridge Rd. El Dorado Hills @ Harvard Way El Dorado Hills @ Warvard Way El Dorado Hills @ Warvard Way El Dorado Hills @ Warvard Way El Dorado Hills @ Saratoga Way (N) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Warvard Way Silva Valley Pkwy, @ El US-50 Ramps Silva Valley Pkwy, @ WE US-50 Ramps	4	8	9		11				3	11		
Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Sans Lake Rd. Green Valley Rd. @ Cambridge Rd. El Dorado Hills @ Harvidge Valley El Dorado Hills @ Merola Wd. El Dorado Hills @ WB US-60 Ramps El Dorado Hills @ WB US-60 Ramps Slava Valley Pkwy. @ EB US-50 Ramps Slava Valley Pkwy. @ EB US-50 Ramps Slava Valley Pkwy. @ EB US-50 Ramps Slava Valley Pkwy. @ Cambridge Volto Dr.	4	8	9		11				3	11		
Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Cambridge Rd. El Dorado Hills @ Harvard Way El Dorado Hills @ Wardog Way (N) El Dorado Hills @ Saratoga Way (N) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Wardog Way (S) El Dorado Hills @ Way (S) El Dorado	4	8	9		11				3	11		
Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Sans Lake Rd. Green Valley Rd. @ Cambridge Rd. El Dorado Hills @ Harvard Way El Dorado Hills @ Bartoga Way R) El Dorado Hills @ Santoga R) El D	4	8	9		11				3	11		
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Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Cambridge Rd. El Dorado Hills @ Harvard Way El Dorado Hills @ Harvard Way (S) El Dorado Hills @ Saratoga Way (N) El Dorado Hills @ Saratoga Way (N) El Dorado Hills @ Saratoga Way (S) Silva Valley Privy, @ CB US-50 Ramps Silva Valley Privy, @ CB US-50 Ramps Silva Valley Privy, @ Cambridge Valley Privy, @ Cambridge Valley Privy, @ Cambridge Valley Privy, @ Sarato Privy, Silva Valley Privy, @ Appian Way Aberdeen Lane @ Appian Way	4	8	9		11				3	11		
Green Valley Rd. @ Deer Valley Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ New Bass Lake Rd. Green Valley Rd. @ Cambridge Rd. El Dorado Hills @ Harvard Way El Dorado Hills @ New Green Cambridge Rd. El Dorado Hills @ New Green Cambridge Rd. El Dorado Hills @ Saratoga Way (N) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ Saratoga Way (S) El Dorado Hills @ New US-50 Ramps Silva Valley Pkwy, @ El US-50 Ramps Silva Valley Pkwy, @ W El US-50 Ramps Silva Valley Pkwy, @ Country Club Dr. Silva Valley Pkwy, @ Favarad Way Silva Valley Pkwy, @ Favarad Way Silva Valley Pkwy, @ Favarad Way Silva Valley Pkwy, @ Pavarad Way	4	8	9		11				3	11		

Intersection		NB			SB			EB			WB	
Intersection	L	Т	R	L	T	R	L	Т	R	L	T	L
rson Creek-Unit 2 (WO#??)												
Green Valley Road @ Francisco Dr.												Г
Green Valley Road @ El Dorado Hills Blvd.												
Green Valley Road @ Silva Valley Pkwy.												
Green Valley Road @ Loch Way												Г
Green Valley Road @ Wilson Estates Connector												L
Green Valley Road @ Malcom Dixon Road												L
Green Valley Rd. @ Deer Valley Rd.												L
Green Valley Rd. @ New Bass Lake Rd.												Г
Green Valley Rd. @ Bass Lake Rd.												L
Green Valley Rd. @ Cambridge Rd.												L
Green Valley Rd. @ Cameron Park Dr.												L
El Dorado Hills Blvd. @ Francisco Dr.												
El Dorado Hills @ Harvard Way					\perp							L
El Dorado Hills Blvd. @ Serrano Pkwy.												L
El Dorado Hills @ Saratoga Way (N)												L
El Dorado Hills @ Saratoga Way (S)		19			29							L
El Dorado Hills @ WB US-50 Ramps	10	19			29					27		L
Latrobe Rd. @ EB US-50 Ramps		29	18		56				15			L
Silva Valley Pkwy. @ EB US-50 Ramps										_		L
Silva Valley Pkwy. @ WB US-50 Ramps												L
Silva ValleyPkwy. @ Country Club Dr.	_			_	_	_		_		_		L
Silva ValleyPkwy. @ Serrano Pkwy.	_		_	_	—			_	_	_	_	L
Silva ValleyPkwy. @ Harvard Way					_					_		L
Silva ValleyPkwy. @ Appian Way												L
Aberdeen Lane @ Appian Way	_		_	_	_	_		_	_	_	_	L
Green Valley Rd. @ Site Dwy. Green Valley Rd. @ Site Dwy.	_	_	_	_	—	_	_	_	_	—	_	₽
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Green Valley Road @ Francisco Dr.												Г
Green Valley Road @ El Dorado Hills Blvd.												t
Green Valley Road @ Silva Valley Pkwy.	\neg									-		Г
Green Valley Road @ Loch Way										-	-	т
Green Valley Road @ Wilson Estates Connector										_		Т
Green Valley Road @ Malcom Dixon Road												Т
Green Valley Rd. @ Deer Valley Rd.												Г
Green Valley Rd. @ New Bass Lake Rd.												Г
Green Valley Rd. @ Bass Lake Rd.												Г
Green Valley Rd. @ Cambridge Rd.												Ľ
Green Valley Rd. @ Cameron Park Dr.												Ľ
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El Dorado Hills @ Harvard Way												Ĺ
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Approved Project Volumes - AM Peak

Green Valley Road @ El Dorado Hills Blwd.
Green Valley Road @ Silva Valley Plwy.
Green Valley Road @ Silva Valley Plwy.
Green Valley Road @ Silva Valley Plwy.
Green Valley Road @ Vilson Estates Connector
Green Valley Road @ Vilson Estates Connector
Green Valley Road @ Vilson Estates Connector
Green Valley Road @ Connector
Green Valley

Sun Stone Business Park (WO#22) Green Valley Road @ Francisco Dr. Green Valley Road @ El Dorado Hills Blvd.

El Dorado Hills Blvd. @ Francisco Dr.
El Dorado Hills @ Harvard Way
El Dorado Hills @ Serrano Pkwy.

El Dorado Hills @ Saratoga Way (N)
El Dorado Hills @ Saratoga Way (S)
El Dorado Hills @ WB US-50 Ramps

Latrobe Rd. @ EB US-50 Ramps Silva Valley Pkwy. @ EB US-50 Ramps

Silva Valley Prkwy, @ ES US-50 Ramps
Silva Valley Prkwy, @ WB US-50 Ramps
Silva Valley Prkwy, @ Country Club Dr.
Silva Valley Prkwy, @ Serrano Prkwy.
Silva Valley Prkwy, @ Harvard Way
Silva Valley Prkwy, @ Appian Way
Aberdeen Lane @ Appian Way
Green Valley Rd @ Silva Desy.

Green Valley Road @ El Diorado Hills Blvd.
Green Valley Road @ Slva Valley Plwy.
Green Valley Road @ Slva Valley Plwy.
Green Valley Road @ Wilson Estatles Connector
Green Valley Road @ Wilson Estatles Connector
Green Valley Road @ Wilson Estatles Connector
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Latrobe Rd. @ EB US-50 Ramps Silva Valley Pkwy. @ EB US-50 Ramps

Silva Vallery Prwy, @ ES US-50 Ramps Silva Vallery Prwy, @ BUS-50 Ramps Silva Vallery Prwy, @ Country Citub Dr. Silva Vallery Prwy, @ Country Citub Dr. Silva Vallery Prwy, @ Harvard Way Silva Vallery Prwy, @ Harvard Way Silva Vallery Prwy, @ Appian Way Aberdeen Lane @ Appian Way Green Vallery Rd. @ Silv Dwy. Green Vallery Rd. @ Silv Dwy.

Green Valley Rd. @ Site Dwy. Green Valley Rd. @ Site Dwy. Hilldale Office Park (WO #23)

Green Valley Road @ Francisco Dr.

Green Valley Road @ El Dorado Hills Blvd. Dixon Ranch

Traffic Impact Analysis

proved Project Volumes - AM Peak		NB			SB			EB			WB	-
Intersection	- 	Т	R	1	T	R	<u> </u>	T	R	-	T	т
rks Property(WO#24)			1 1	_	•						_	+
Green Valley Road @ Francisco Dr.	$\overline{}$	_	_			_	_	_		_	_	т
Green Valley Road @ El Dorado Hills Blvd.	-	-	-	-	-	-	-	_	-	-	-	+
Green Valley Road @ Silva Valley Pkwy.	-	3	_	_	2	2	3	-	-	-	-	+
Green Valley Road @ Loch Way	-	-	-	_	-	-	-	-	-	-	-	+
Green Valley Road @ Wilson Estates Connector	-	-	-	-	-	-	-	-	-	-	-	+
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Green Valley Road @ Malcom Dixon Road	-	-	-	_	-	-	-	-	-	-	-	4
Green Valley Rd. @ Deer Valley Rd.	-	-	-	-	-	-	_	-	-	-	-	4
Green Valley Rd. @ New Bass Lake Rd.	-	—	-	-	-	—	-	-	-	—	—	4
Green Valley Rd. @ Bass Lake Rd.	-	-	-	_	_	_	_	-	-	-	_	4
Green Valley Rd. @ Cambridge Rd.	_	\vdash	_	-	_	<u> </u>	_	-	_	—	_	4
Green Valley Rd. @ Cameron Park Dr.	_	—	-	_	_	_	_	-	_	—	_	4
El Dorado Hills Blvd. @ Francisco Dr.	_	—	_	_	_			_	_	_		4
El Dorado Hills @ Harvard Way	_	\vdash	_	_	_	_	_	_	_	—	_	4
El Dorado Hills Blvd. @ Serrano Pkwy.												
El Dorado Hills @ Saratoga Way (N)												_
El Dorado Hills @ Saratoga Way (S)												_
El Dorado Hills @ WB US-50 Ramps												1
Latrobe Rd. @ EB US-50 Ramps												1
Silva Valley Pkwy. @ EB US-50 Ramps												1
Silva Valley Pkwy. @ WB US-50 Ramps												1
Silva ValleyPkwy. @ Country Club Dr.												1
Silva ValleyPkwy. @ Serrano Pkwy.												1
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Green Valley Rd. @ Site Dwy.	\neg	-				-				-	-	٦
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Green Valley Road @ Loch Way	$\overline{}$	-	-		-	-	-	-		-	-	T
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Green Valley Rd. @ Bass Lake Rd.	-	-	_		-	-	-	-	-	-	-	۲
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Green Valley Rd. @ Cameron Park Dr.	-	-	-		-	-	-	-	-	-	-	۲
El Dorado Hils Blvd. @ Francisco Dr.	-	-	_	-	-	-	-	_	_	-	-	+
El Dorado Hills @ Harvard Way	-	-	_	_	-	-	-	_	-	-	-	۲
El Dorado Fills Blvd. @ Serrano Pkwy.	-	-	_	_	-	-	-	_	-	-	-	+
El Dorado Fills @ Saratoga Way (N)	-	-	-	_	-	-	-	-	-	-	-	+
El Dorado Fills @ Saratoga Way (S)	-	-	_	_	-	-	-	_	-	-	-	+
El Dorado Hills @ WB US-50 Ramps	-	-	_	-	-	-	-	_	-	-	-	+
Latrobe Rd. @ EB US-50 Ramps	-	-	_	_	-	-	-	_	-	-	-	+
Silva Valley Pkwy. @ EB US-50 Ramps	-	-	-	-	-	-	-	-	-	⊢	-	+
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Silva Valley Pkwy. @ WB US-50 Ramps	-	-	_	_	-	-	-	-	_	-	-	4
Silva Valley Pkwy. @ Country Club Dr.	-	-	-	-	-	-	-	-	-	-		4
Silva ValleyPkwy. @ Serrano Pkwy.	-	-	-	-	⊢	⊢	⊢	₩	—	—	⊢	4
Silva ValleyPkwy. @ Harvard Way	-	-	-	-	-	\vdash	\vdash	-	-	⊢	-	4
Silva ValleyPkwy. @ Appian Way			1								_	_
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Aberdeen Lane @ Appian Way Green Valley Rd. @ Site Dwy.												ļ

Appendix D 3/19/2013 Kimley-Hom and Associates, Inc. 3/19/2013 Kimley-Hom and Associates, Inc. Appendix D

Traffic Impact Analysis

pproved Project Volumes - AM Peak	_						_			_		
Intersection	-	NB	_		SB	_		EB	_		WB	
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Green Valley Rd. @ Cameron Park Dr.	_	-			$\overline{}$	_				-	_	╙
El Dorado Hills Blvd. @ Francisco Dr.												┖
El Dorado Hills @ Harvard Way	_					_				$\overline{}$	_	┖
El Dorado Hills Blvd. @ Serrano Pkwy.												┖
El Dorado Hills @ Saratoga Way (N)												┖
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Latrobe Rd. @ EB US-50 Ramps		49	25		8				10			┖
Silva Valley Pkwy. @ EB US-50 Ramps												
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Silva ValleyPkwy. @ Country Club Dr.												
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Silva ValleyPkwy. @ Harvard Way												┖
Silva ValleyPkwy. @ Appian Way												
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Traffic Impact Analysis

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Traffic Impact Analysis

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Green Valley Rd. @ Cameron Park Dr.	11							7	7	-	12	Н
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Approved Project Volumes - AM Peak

Serrano Village K1/2 PH5
Green Valley Road @ Francisco Dr.
Green Valley Road @ El Dorado Hills Bhd.
Green Valley Road @ Siln Valley Pkwy.
Green Valley Road @ Siln Valley Pkwy.
Green Valley Road @ Wison Estatles Connector
Green Valley Road @ Deer Valley Ro.
Green Valley Ro. @ Deer Valley Ro.
Green Valley Ro. @ Bass Lake Rd.
Green Valley Ro. Bass Lake Rd.
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Green Valley No. @ Carlleton Park Dr.
El Dorado Hills Blvd. @ Francisco Dr.
El Dorado Hills @ Harvard Way
El Dorado Hills @ Sarranop Pkwy.
El Dorado Hills @ Saratoga Way (N)
El Dorado Hills @ Saratoga Way (S)
El Dorado Hills @ WB US-50 Ramps

Latrobe Rd. @ EB US-50 Ramps Silva Valley Pkwy. @ EB US-50 Ramps

Silva Valley Prkwy, @ ES US-50 Ramps
Silva Valley Prkwy, @ WB US-50 Ramps
Silva Valley Prkwy, @ Country Club Dr.
Silva Valley Prkwy, @ Serrano Prkwy.
Silva Valley Prkwy, @ Harvard Way
Silva Valley Prkwy, @ Appian Way
Aberdeen Lane @ Appian Way
Green Valley Rd @ Silva Desy.

errano Village K1/2 PH4
Green Valley Road @ Francisco Dr.
Green Valley Road @ El Dorado Hills Blvd.
Green Valley Road @ Siva Valley Plwy.
Green Valley Road @ Siva Valley Plwy.
Green Valley Road @ Siva Valley Plwy.
Green Valley Road @ Village Plwy.
Green Valley Road @ Village El Bales Connector
Green Valley Road @ Village Clave Road
Green Valley Road @ Village Road
Green Valley Road @ Combridge Road

Green Valley Rd. @ Cambridge Rd.
Green Valley Rd. @ Cameron Park Dr
El Dorado Hills Blvd. @ Francisco Dr.
El Dorado Hills @ Harvard Way
El Dorado Hills @ Harvard Way
El Dorado Hills @ Serrano Pkwy.
El Dorado Hills @ Saratoga Way (N)

El Dorado Hills @ Sartadoga Way (N)
El Dorado Hills @ Sartadoga Way (S)
El Dorado Hills @ WB US-50 Ramps
Latrobe Rd. @ EB US-50 Ramps
Silva Valley Pkwy. @ EB US-50 Ramps
Silva Valley Pkwy. @ WB US-50 Ramps
Silva Valley Pkwy. @ Country Club Dr.
Silva Valley Pkwy. @ Country Club Dr.
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Aberdeen Lane @ Appian Way Green Valley Rd. @ Site Dwy. Green Valley Rd. @ Site Dwy.

Green Valley Rd. @ Site Dwy. Green Valley Rd. @ Site Dwy. Serrano Village K1/2 PH4 Dixon Ranch

Traffic Impact Analysis

Intersection		NB			SB			EB			WB	
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Traffic Impact Analysis

Approved Project Volumes - AM Peak

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Green Valley Road @ Francisco Dr.
Green Valley Road @ El Dorado Hills Blvd.
Green Valley Road @ El Dorado Hills Blvd.
Green Valley Road @ El Dorado Hills Blvd.
Green Valley Road @ Look Way
Green Valley Road @ Walson Estates Connector
Green Valley Road @ Malson Moon Road
Green Valley Rod. @ Deer Valley Rd.
Green Valley Rd. @ New Bass Lake Rd.
Green Valley Rd. @ Look Rd.
Green Valley Rd. @ Cambridge Rd.

El Dorado Hills Blvd. @ Francisco Dr.
El Dorado Hills @ Harvard Way
El Dorado Hills @ Serrano Pkwy. El Dorado Hills @ Saratoga Way (N)
El Dorado Hills @ Saratoga Way (S)
El Dorado Hills @ Saratoga Way (S)
El Dorado Hills @ WB US-50 Ramps

Latrobe Rd. @ EB US-50 Ramps Silva Valley Pkwy. @ EB US-50 Ramps

Siliva Valley Prkwy. @ EB US-50 Ramps
Siliva Valley Prkwy. @ WB US-50 Ramps
Siliva Valley Prkwy. @ Country Club Dr.
Siliva Valley Prkwy. @ Serrano Prkwy.
Siliva Valley Prkwy. @ Harvard Way
Siliva Valley Prkwy. @ Appian Way
Aberdeen Lane @ Appian Way
Green Valley Rd. @ Siliva Desy.

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Green Valley Road @ Francisco Dr.
Green Valley Road @ El Dorado Hills Blvd.
Green Valley Road @ Silva Valley Plwy.
Green Valley Road @ Silva Valley Plwy.
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Green Valley Road @ Village Road
Green Valley Road @ Combridge Road

Green Valley Rd. @ Cambridge Rd. Green Valley Rd. @ Cameron Park Dr. El Dorado Hills Blvd. @ Francisco Dr. El Dorado Hills @ Harvard Way
El Dorado Hills Blvd. @ Serrano Pkwy.
El Dorado Hills @ Saratoga Way (N)

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El Dorado Hills @ With US-50 Ramps

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Siva Valley Pivay, @ El US-50 Ramps

Siva Valley Pivay, @ Will US-50 Ramps

Siva Valley Pivay, @ Havrard Way

Aberdeen Lane @ Appian Way Green Valley Rd. @ Site Dwy. Green Valley Rd. @ Site Dwy.

Green Valley Rd. @ Site Dwy. Green Valley Rd. @ Site Dwy. Seranno Village M5

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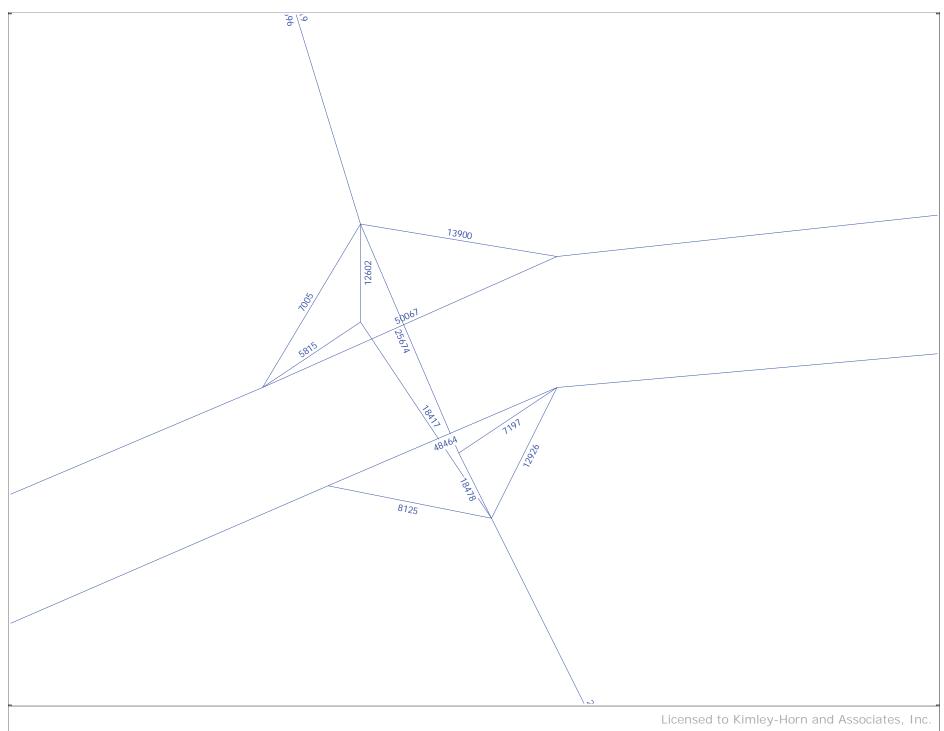
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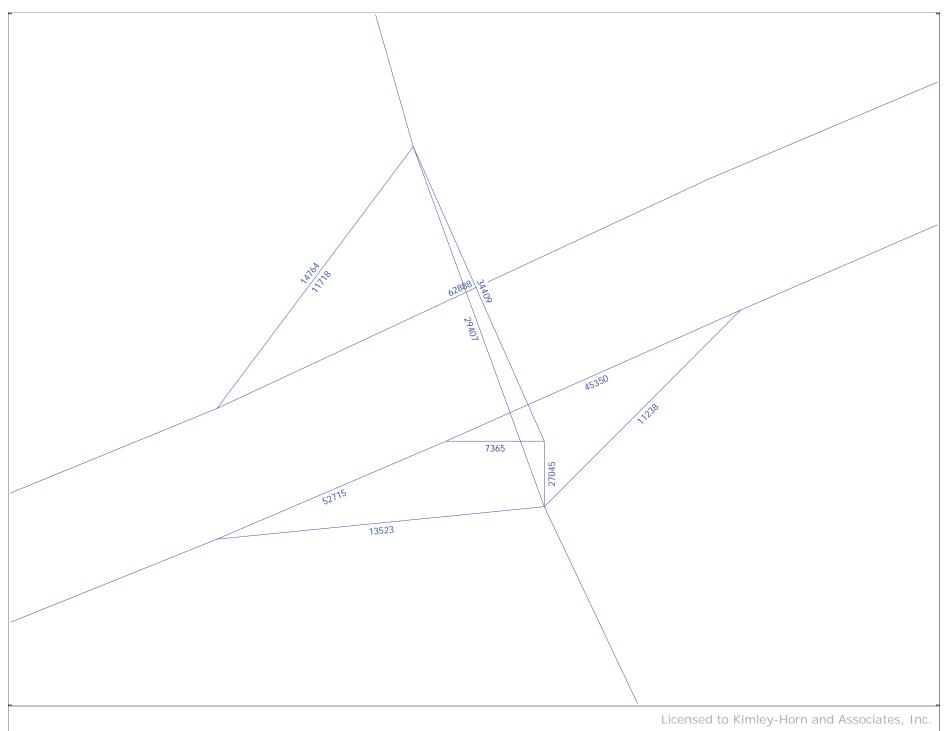
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Green Valley Road @ Silva Valley Pkwy.	_							8				L
Green Valley Road @ Loch Way								8				L
Green Valley Road @ Wilson Estates Connector	_		_	_	-	_	_	8		_	_	┖
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El Dorado Hills @ WB US-50 Ramps												Ľ
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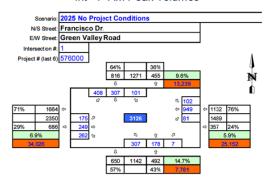
3/19/2013 3/19/2013 Kimley-Hom and Associates, Inc. Appendix D Kimley-Horn and Associates, Inc. Appendix D

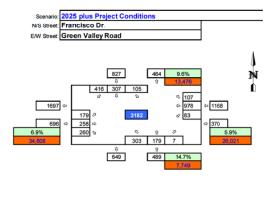


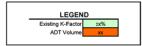




Int 1 AM Peak Volumes

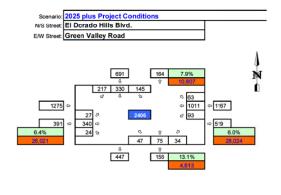






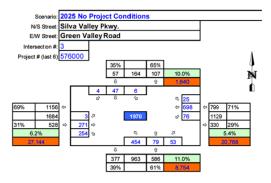
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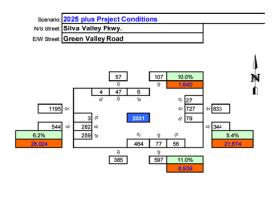


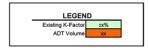




Int 3 AM Peak Volumes

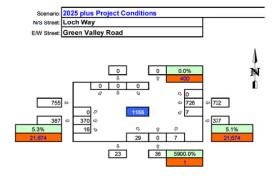






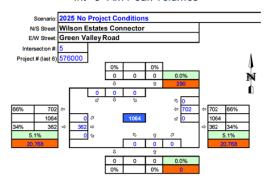
Int 4 AM Peak Volumes

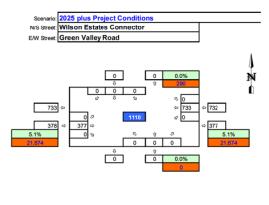






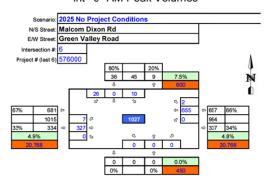
Int 5 AM Peak Volumes

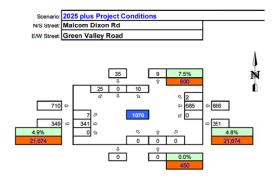


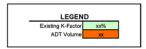




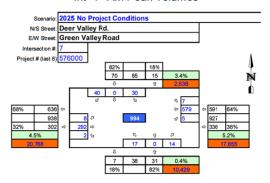
Int 6 AM Peak Volumes

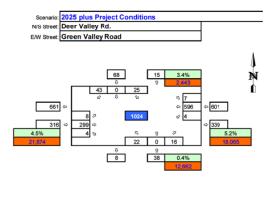


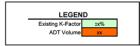




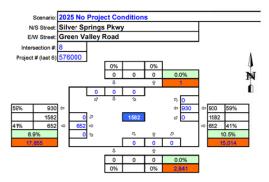
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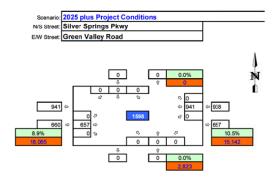






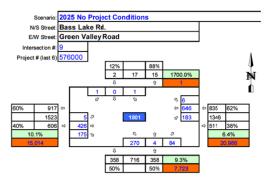
Int 8 AM Peak Volumes

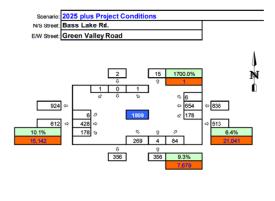


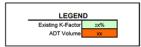




Int 9 AM Peak Volumes

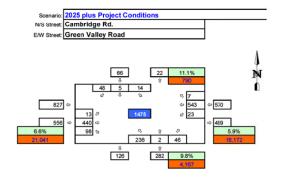


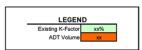




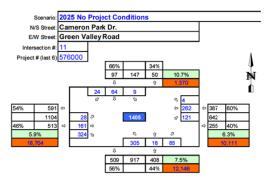
Int 10 AM Peak Volumes

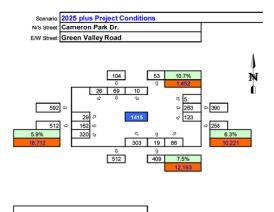






Int 11 AM Peak Volumes



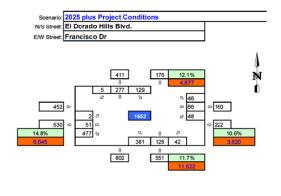


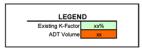
Existing K-Factor 2x%
ADT Volume xx

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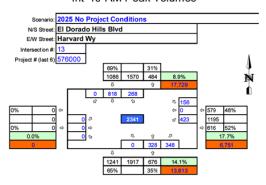
Int 12 AM Peak Volumes

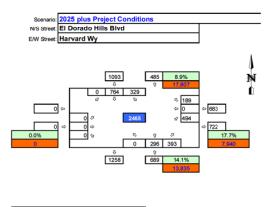


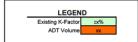




Int 13 AM Peak Volumes

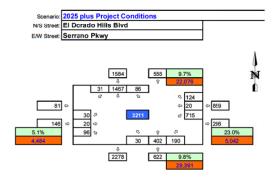


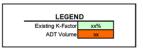




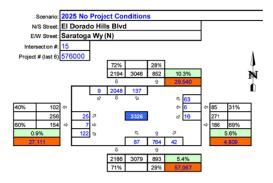
Int 14 AM Peak Volumes

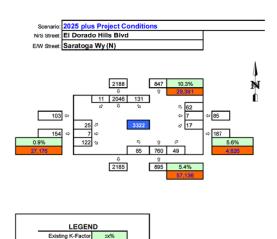




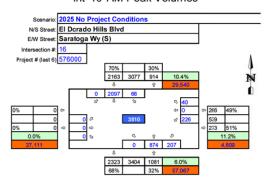


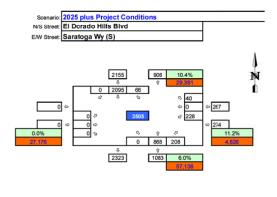
Int 15 AM Peak Volumes

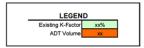




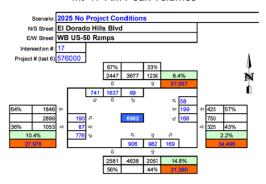
Int 16 AM Peak Volumes

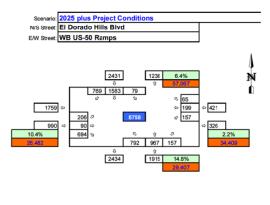






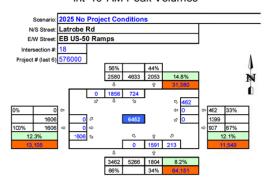
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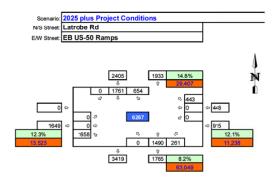


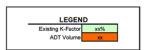




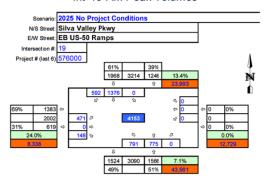
Int 18 AM Peak Volumes

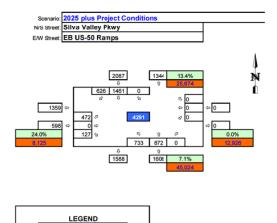






Int 19 AM Peak Volumes

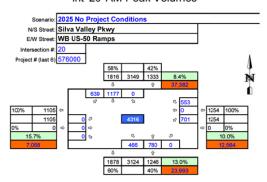


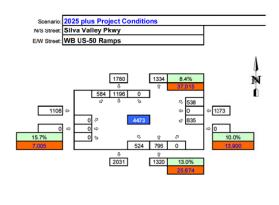


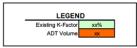
Existing K-Factor 2x%
ADT Volume xx

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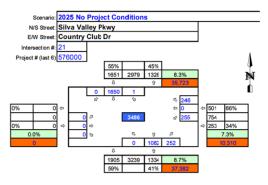
Int 20 AM Peak Volumes

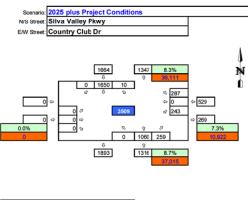


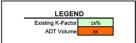




Int 21 AM Peak Volumes



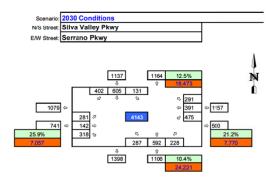


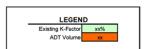


Int 22 AM Peak Volumes



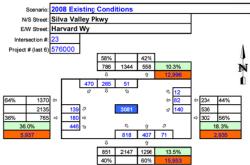
Note: Traffic volumes were collected by Traffic Data Services Southwest during February 2005



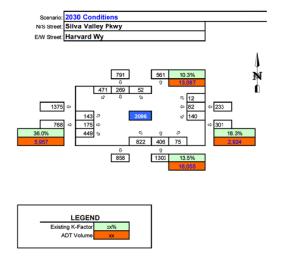


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Int 23 AM Peak Volumes

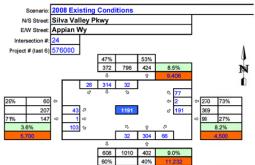


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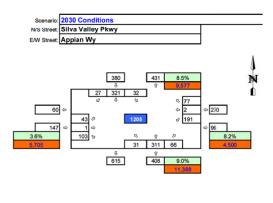


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Int 24 AM Peak Volumes



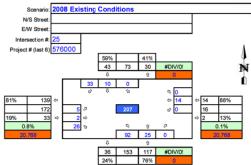
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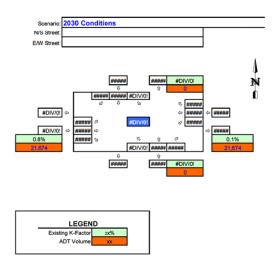


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Int 25 AM Peak Volumes

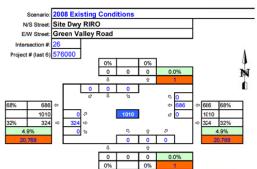


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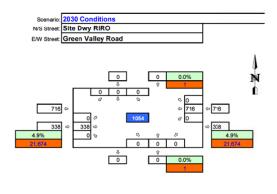


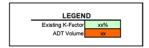
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Int 26 AM Peak Volumes



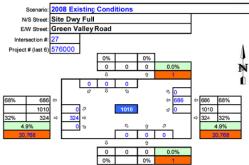
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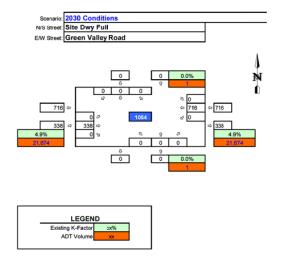


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Int 27 AM Peak Volumes

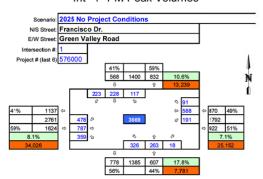


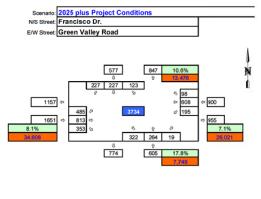
Note: Traffic volumes were collected by Traffic Data Services Southwest during February 2005.



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Int 1 PM Peak Volumes

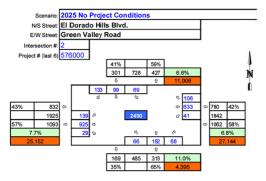


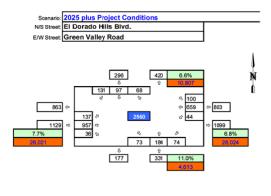




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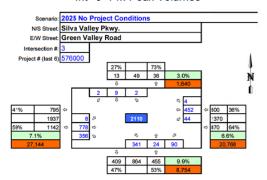
Int 2 PM Peak Volumes

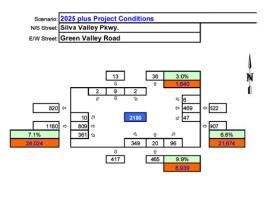






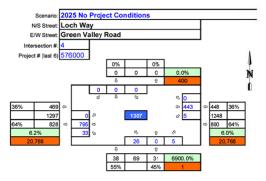
Int 3 PM Peak Volumes

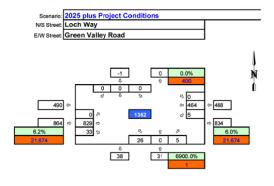






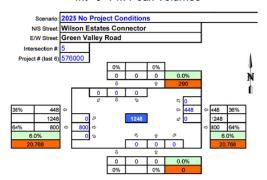
Int 4 PM Peak Volumes

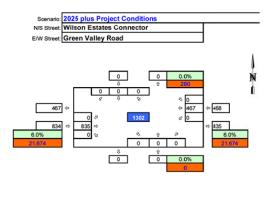






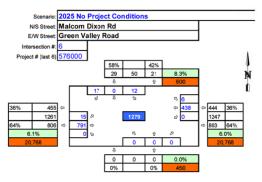
Int 5 PM Peak Volumes

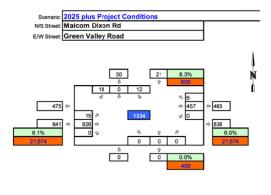






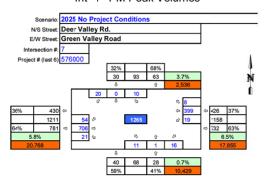
Int 6 PM Peak Volumes

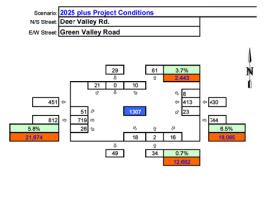






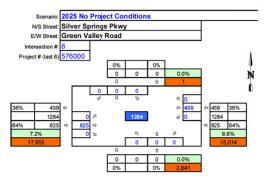
Int 7 PM Peak Volumes

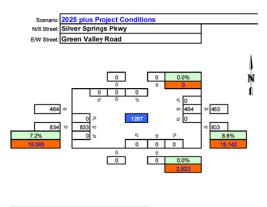


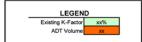




Int 8 PM Peak Volumes

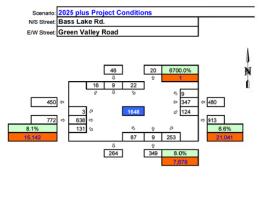






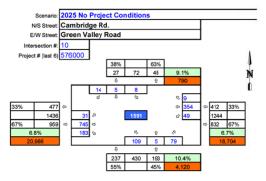
Int 9 PM Peak Volumes

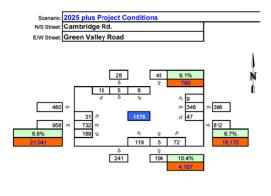






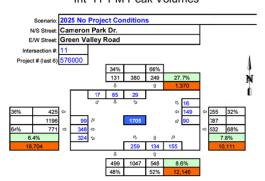
Int 10 PM Peak Volumes

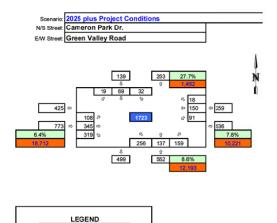






Int 11 PM Peak Volumes

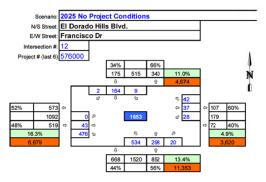


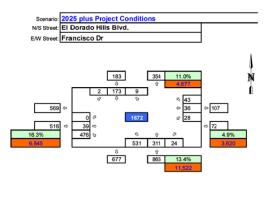


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Existing K-Factor

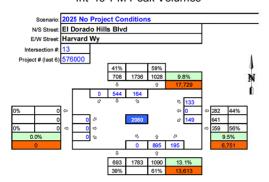
Int 12 PM Peak Volumes

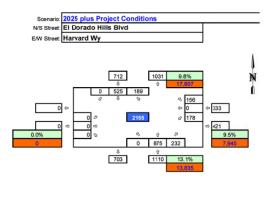






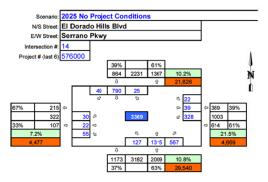
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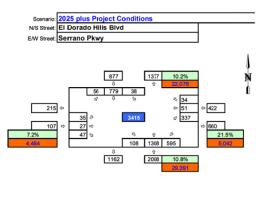






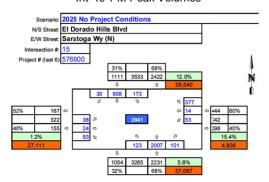
Int 14 PM Peak Volumes

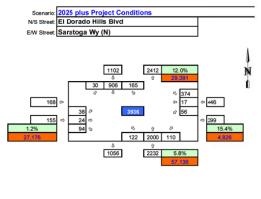






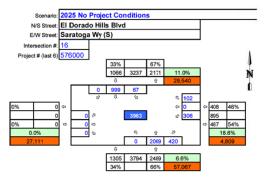
Int 15 PM Peak Volumes

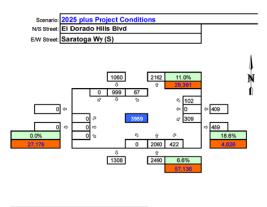






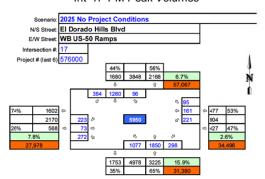
Int 16 PM Peak Volumes

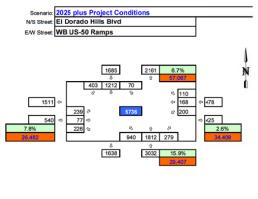






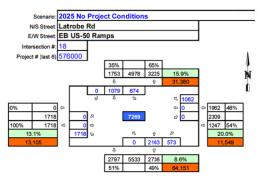
Int 17 PM Peak Volumes

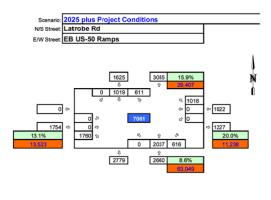






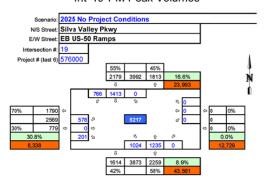
Int 18 PM Peak Volumes

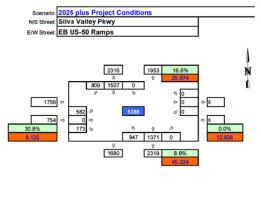






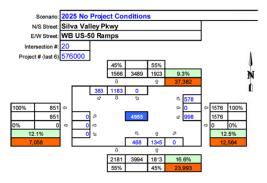
Int 19 PM Peak Volumes

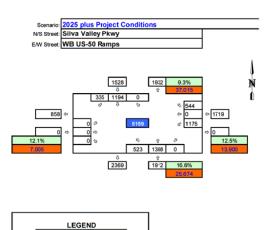






Int 20 PM Peak Volumes

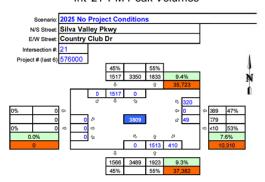


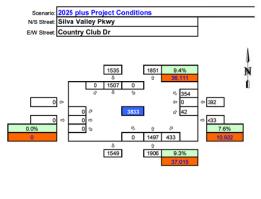


Existing K-Factor xx%
ADT Volume xx

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Int 21 PM Peak Volumes





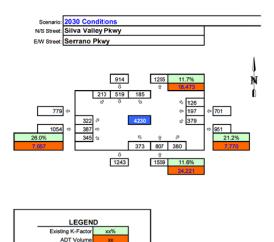


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Int 22 PM Peak Volumes

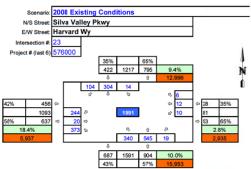


Note: Traffic volumes were collected by Traffic Data Services Southwest during February 2005.

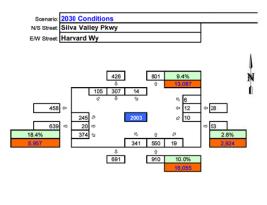


W:\SAC_TPTO\Dixon Ranch TIA - 097576000\03 Analysis Files\Volume Files\turns\Turn32.xlsx Int 22 PM

Int 23 PM Peak Volumes

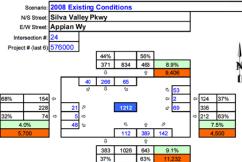


Note: Traffic volumes were collected by Traffic Data Services Southwest during February 2005.

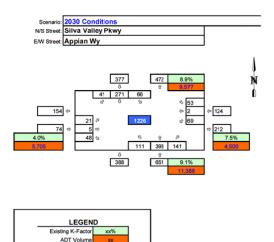




Int 24 PM Peak Volumes

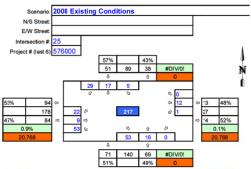


Note: Traffic volumes were collected by Traffic Data Services Southwest during February 2005.

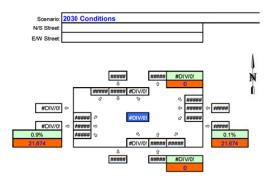


W:\SAC_TPTO\Dixon Ranch TIA - 097576000\03 Analysis Files\Volume Files\turns\Turn32.xlsx Int 24 PM

Int 25 PM Peak Volumes



Note: Traffic volumes were collected by Traffic Data Services Southwest during February 2005.

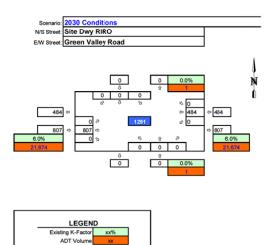




Int 26 PM Peak Volumes

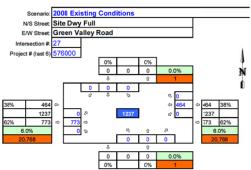


Note: Traffic volumes were collected by Traffic Data Services Southwest during February 2005.

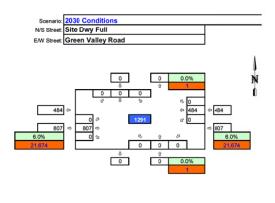


W:\SAC_TPTO\Dixon Ranch TIA - 097576000\03 Analysis Files\Volume Files\turns\Turn32.xlsx Int 26 PM

Int 27 PM Peak Volumes



Note: Traffic volumes were collected by Traffic Data Services Southwest during February 2005.





Appendix E:

Analysis Worksheets for Existing plus Approved Projects (2018) Conditions

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ايوايو	44	54,	Jal.	44	74	34.34	1		J.	4	7
Volume (vph)	158	287	229	73	864	76	316	171	7	91	283	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3517		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3517		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	172	312	249	79	939	83	343	186	8	99	308	399
RTOR Reduction (vph)	0	0	164	0	0	56	0	4	0	0	0	127
Lane Group Flow (vph)	172	312	85	79	939	27	343	190	0	99	308	272
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	5.0	26.3	26.3	3.8	25.1	25.1	9.9	23.7		4.6	18.4	18.4
Effective Green, g (s)	5.0	26.3	26.3	3.8	25.1	25.1	9.9	23.7		4.6	18.4	18.4
Actuated g/C Ratio	0.07	0.34	0.34	0.05	0.33	0.33	0.13	0.31		0.06	0.24	0.24
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	224	1215	543	87	1159	518	443	1088		106	447	380
v/s Ratio Prot	c0.05	0.09		0.04	c0.27		c0.10	0.05		0.06	0.17	
v/s Ratio Perm			0.05			0.02						c0.17
v/c Ratio	0.77	0.26	0.16	0.91	0.81	0.05	0.77	0.17		0.93	0.69	0.72
Uniform Delay, d1	35.2	18.1	17.5	36.2	23.6	17.6	32.3	19.3		35.8	26.5	26.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	14.6	0.1	0.1	66.1	4.4	0.0	8.2	0.1		66.1	4.4	6.3
Delay (s)	49.8	18.2	17.6	102.3	28.0	17.7	40.5	19.4		102.0	30.9	33.0
Level of Service	D	В	В	F	С	В	D	В		F	С	С
Approach Delay (s)		25.4			32.5			32.9			40.7	
Approach LOS		С			С			С			D	
Intersection Summary												
HCM 2000 Control Delay			33.0	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.77									
Actuated Cycle Length (s)			76.6	S	um of los	t time (s)			18.2			
Intersection Capacity Utiliza	ation		67.5%	IC	CU Level	of Service	•		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	To.		14	14		140	10			4	7
Volume (vph)	32	334	17	92	880	60	36	84	35	117	308	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1770	1850		1770	1845		1770	1780			1837	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (perm)	1770	1850		1770	1845		1770	1780			1837	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	363	18	100	957	65	39	91	38	127	335	196
RTOR Reduction (vph)	0	1	0	0	2	0	0	11	0	0	0	115
Lane Group Flow (vph)	35	380	0	100	1020	0	39	118	0	0	462	81
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	3.5	62.8		11.3	70.6		14.7	14.7			34.1	34.1
Effective Green, g (s)	3.5	62.8		11.3	70.6		14.7	14.7			34.1	34.1
Actuated g/C Ratio	0.02	0.44		0.08	0.50		0.10	0.10			0.24	0.24
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
Lane Grp Cap (vph)	43	818		140	917		183	184			441	380
v/s Ratio Prot	0.02	0.21		c0.06	c0.55		0.02	c0.07			c0.25	
v/s Ratio Perm												0.05
v/c Ratio	0.81	0.46		0.71	1.11		0.21	0.64			1.05	0.21
Uniform Delay, d1	68.9	27.8		63.7	35.7		58.3	61.1			53.9	43.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	68.4	0.9		14.9	65.7		1.0	9.1			55.9	0.5
Delay (s)	137.2	28.6		78.6	101.4		59.3	70.2			109.8	43.7
Level of Service	F	С		Е	F		Е	Е			F	D
Approach Delay (s)		37.8			99.4			67.7			90.1	
Approach LOS		D			F			E			F	
Intersection Summary												
HCM 2000 Control Delay			83.7	Н	CM 2000	Level of	Service		F			
HCM 2000 Volume to Capa	city ratio		1.03									
Actuated Cycle Length (s)			141.9		um of los				19.0			
Intersection Capacity Utiliza	ation		95.5%	10	CU Level	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	54,	Jal.	7.		Jal.	10			4	
Volume (vph)	2	250	234	107	648	19	388	50	48	5	41	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.93			0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1855		1770	1726			1824	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1770	1863	1583	1770	1855		1770	1726			1824	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	272	254	116	704	21	422	54	52	5	45	7
RTOR Reduction (vph)	0	0	163	0	1	0	0	27	0	0	5	0
Lane Group Flow (vph)	2	272	91	116	724	0	422	79	0	0	52	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6									
Actuated Green, G (s)	0.7	35.7	35.7	10.7	45.7		28.7	28.7			6.5	
Effective Green, g (s)	0.7	35.7	35.7	10.7	45.7		28.7	28.7			6.5	
Actuated g/C Ratio	0.01	0.36	0.36	0.11	0.46		0.29	0.29			0.07	
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Vehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
Lane Grp Cap (vph)	12	665	565	189	848		508	495			118	
v/s Ratio Prot	0.00	0.15		c0.07	c0.39		c0.24	0.05			c0.03	
v/s Ratio Perm			0.06									
v/c Ratio	0.17	0.41	0.16	0.61	0.85		0.83	0.16			0.44	
Uniform Delay, d1	49.3	24.2	21.9	42.6	24.1		33.3	26.6			45.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	4.7	0.4	0.1	5.0	8.4		10.9	0.1			1.9	
Delay (s)	54.1	24.6	22.0	47.6	32.5		44.2	26.7			46.9	
Level of Service	D	С	С	D	С		D	С			D	
Approach Delay (s)		23.5			34.6			40.7			46.9	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			33.6	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.82									
Actuated Cycle Length (s)	,		99.9	S	um of los	t time (s)			18.3			
Intersection Capacity Utiliza	tion		78.7%			of Service)		D			
Analysis Period (min)			15		2 20.01	2. 00. 1100						
c Critical Lane Group												

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	Ta-			ৰ	16	ř	
Volume (veh/h)	338	13	6	711	23	6	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	367	14	7	773	25	7	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			382		1160	374	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			382		1160	374	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		88	99	
cM capacity (veh/h)			1177		215	672	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2			
Volume Total	382	779	25	7			
Volume Left	0	7	25	0			
Volume Right	14	0	0	7			
cSH	1700	1177	215	672			
Volume to Capacity	0.22	0.01	0.12	0.01			
Queue Length 95th (ft)	0	0	10	1			
Control Delay (s)	0.0	0.1	24.0	10.4			
Lane LOS		Α	С	В			
Approach Delay (s)	0.0	0.1	21.1				
Approach LOS			С				
Intersection Summary							
Average Delay		_	0.7				
Intersection Capacity Utiliza	ation		52.2%	IC	U Level	of Service	
Analysis Period (min)			15				
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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		ৰ	To		44	
Volume (veh/h)	11	333	689	4	12	28
Sign Control		Free	Free	•	Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	362	749	4	13	30
Pedestrians				•		
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	753				1137	751
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	753				1137	751
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				94	93
cM capacity (veh/h)	857				220	411
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	374	753	43			
Volume Left	12	0	13			
Volume Right	0	4	30			
cSH	857	1700	326			
Volume to Capacity	0.01	0.44	0.13			
Queue Length 95th (ft)	1	0.44	11			
Control Delay (s)	0.5	0.0	17.7			
Lane LOS	0.5 A	0.0	C			
Approach Delay (s)	0.5	0.0	17.7			
Approach LOS	0.0	0.0	C			
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utiliz	zation		46.5%	IC	U Level	of Service
Analysis Period (min)	Zation		15	10	O LOVOI (0011100
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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	To		44	
Volume (veh/h)	6	316	679	2	8	21
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	343	738	2	9	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	740				1096	739
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	740				1096	739
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				96	95
cM capacity (veh/h)	866				234	417
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	350	740	32			
Volume Left	7	0	9			
Volume Right	0	2	23			
cSH	866	1700	343			
Volume to Capacity	0.01	0.44	0.09			
Queue Length 95th (ft)	1	0	8			
Control Delay (s)	0.3	0.0	16.5			
Lane LOS	Α		С			
Approach Delay (s)	0.3	0.0	16.5			
Approach LOS			С			
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utiliz	zation		45.9%	IC	U Level	of Service
Analysis Period (min)			15			
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	ň	T.		,tc	7.			40			44	
Volume (veh/h)	7	286	2	11	614	6	12	0	32	21	0	28
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	311	2	12	667	7	13	0	35	23	0	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	674			313			1049	1025	312	1055	1023	67
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	674			313			1049	1025	312	1055	1023	671
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			93	100	95	88	100	93
cM capacity (veh/h)	917			1247			189	231	728	191	231	457
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	8	313	12	674	48	53						
Volume Left	8	0	12	0	13	23						
Volume Right	0	2	0	7	35	30						
cSH	917	1700	1247	1700	410	286						
Volume to Capacity	0.01	0.18	0.01	0.40	0.12	0.19						
Queue Length 95th (ft)	1	0	1	0	10	17						
Control Delay (s)	9.0	0.0	7.9	0.0	14.9	20.4						
Lane LOS	Α		Α		В	С						
Approach Delay (s)	0.2		0.1		14.9	20.4						
Approach LOS					В	С						
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utiliza	ation		44.0%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	1>			41	814	11511		
Volume (vph)	552	36	9	759	105	26		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0			4.0	4.0	.000		
Lane Util. Factor	1.00			1.00	1.00			
Frt	0.99			1.00	0.97			
Flt Protected	1.00			1.00	0.96			
Satd. Flow (prot)	1847			1862	1743			
Flt Permitted	1.00			0.99	0.96			
Satd. Flow (perm)	1847			1850	1743			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	600	39	10	825	114	28		
RTOR Reduction (vph)	4	0	0	020	16	0		
Lane Group Flow (vph)	635	0	0	835	126	0		
Turn Type	NA		Perm	NA	NA			
Protected Phases	4		1 Cilli	8	2			
Permitted Phases	7		8	U				
Actuated Green, G (s)	24.5		· ·	24.5	8.8			
Effective Green, g (s)	24.5			24.5	8.8			
Actuated g/C Ratio	0.59			0.59	0.21			
Clearance Time (s)	4.0			4.0	4.0			
Vehicle Extension (s)	3.0			3.0	3.0			
Lane Grp Cap (vph)	1095			1097	371			
v/s Ratio Prot	0.34			1007	c0.07			
v/s Ratio Perm	0.04			c0.45	00.07			
v/c Ratio	0.58			0.76	0.34			
Uniform Delay, d1	5.2			6.2	13.8			
Progression Factor	1.00			1.00	1.00			
Incremental Delay, d2	0.8			3.2	0.5			
Delay (s)	6.0			9.4	14.3			
Level of Service	Α			A	В			
Approach Delay (s)	6.0			9.4	14.3			
Approach LOS	Α			A	В			
Intersection Summary	,,			•				
HCM 2000 Control Delay			8.5	Н	CM 2000	Level of Service	A	
HCM 2000 Volume to Capa	acity ratio		0.65	11	CIVI 2000	LOTOL OF OCTAINE		
Actuated Cycle Length (s)	uoity ratio		41.3	S	um of lost	time (s)	8.0	
Intersection Capacity Utiliz	ation		61.2%			of Service	В.	
Analysis Period (min)	uudii		15	i C	C LOVEI C	7 COLVIOC	U	
c Critical Lane Group			13					
o ontion Lanc Oroup								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	To.		Jal.	Pr-			4	ř°		4	
Volume (vph)	4	393	162	169	597	5	222	4	69	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.96		1.00	1.00			1.00	0.85		0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1781		1770	1861			1775	1583		1695	
Flt Permitted	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1781		1770	1861			1775	1583		1695	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	427	176	184	649	5	241	4	75	1	0	1
RTOR Reduction (vph)	0	14	0	0	0	0	0	0	61	0	2	0
Lane Group Flow (vph)	4	589	0	184	654	0	0	245	14	0	0	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	0.7	32.9		10.1	42.3			14.1	14.1		0.9	
Effective Green, g (s)	0.7	32.9		10.1	42.3			14.1	14.1		0.9	
Actuated g/C Ratio	0.01	0.44		0.14	0.57			0.19	0.19		0.01	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	16	791		241	1063			338	301		20	
v/s Ratio Prot	0.00	c0.33		c0.10	0.35			c0.14			c0.00	
v/s Ratio Perm									0.01			
v/c Ratio	0.25	0.74		0.76	0.61			0.72	0.05		0.00	
Uniform Delay, d1	36.4	17.1		30.8	10.5			28.1	24.5		36.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	8.1	3.8		13.4	1.1			7.5	0.1		0.0	
Delay (s)	44.4	20.9		44.2	11.5			35.6	24.5		36.1	
Level of Service	D	С		D	В			D	С		D	
Approach Delay (s)		21.0			18.7			33.0			36.1	
Approach LOS		С			В			С			D	
Intersection Summary												
HCM 2000 Control Delay			22.1	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capaci	ty ratio		0.73									
Actuated Cycle Length (s)			74.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utilization	on		69.1%	IC	U Level	of Service)		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	74		Jal.	7.		,tc	10			44	
Volume (vph)	11	385	82	22	515	6	208	2	49	14	4	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.86			0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1814		1770	1859		1770	1593			1666	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1814		1770	1859		1770	1593			1666	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	418	89	24	560	7	226	2	53	15	4	46
RTOR Reduction (vph)	0	9	0	0	1	0	0	42	0	0	43	0
Lane Group Flow (vph)	12	498	0	24	566	0	226	13	0	0	22	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Actuated Green, G (s)	0.6	24.0		1.2	24.6		11.8	11.8			3.7	
Effective Green, g (s)	0.6	24.0		1.2	24.6		11.8	11.8			3.7	
Actuated g/C Ratio	0.01	0.42		0.02	0.43		0.21	0.21			0.07	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	18	767		37	806		368	331			108	
v/s Ratio Prot	0.01	0.27		c0.01	c0.30		c0.13	0.01			c0.01	
v/s Ratio Perm												
v/c Ratio	0.67	0.65		0.65	0.70		0.61	0.04			0.20	
Uniform Delay, d1	28.0	13.0		27.5	13.1		20.4	17.9			25.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	66.1	1.9		33.0	2.8		3.0	0.0			0.9	
Delay (s)	94.0	14.9		60.5	15.9		23.4	18.0			26.0	
Level of Service	F	В		Е	В		С	В			С	
Approach Delay (s)		16.7			17.7			22.3			26.0	
Approach LOS		В			В			С			С	
Intersection Summary												
HCM 2000 Control Delay			18.6	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.64									
Actuated Cycle Length (s)			56.7		um of los				16.0			
Intersection Capacity Utiliza	ition		52.3%	10	CU Level	of Service)		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	54,		4		jąć	130		1	1	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	49	485	45	64	42	407	146	37	125	355	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	53	527	49	70	46	442	159	40	136	386	3
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	55	527	164	442	199	136	389					
Volume Left (vph)	2	0	49	442	0	136	0					
Volume Right (vph)	0	527	46	0	40	0	3					
Hadj (s)	0.04	-0.57	-0.07	0.53	-0.11	0.53	0.03					
Departure Headway (s)	7.2	3.2	6.6	6.6	5.9	6.7	6.2					
Degree Utilization, x	0.11	0.47	0.30	0.81	0.33	0.25	0.67					
Capacity (veh/h)	452	1116	507	537	591	515	557					
Control Delay (s)	11.0	9.0	12.5	30.4	10.6	10.8	19.9					
Approach Delay (s)	9.2		12.5	24.3		17.6						
Approach LOS	Α		В	С		С						
Intersection Summary												
Delay			16.8									
Level of Service			С									
Intersection Capacity Utilizati	ion		67.3%	IC	U Level	of Service			С			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	To		Jal.	7+		Jal.	10		1	1	
Volume (vph)	25	140	283	116	250	4	276	16	77	9	64	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.90		1.00	1.00		1.00	0.88		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1676		1770	1859		1770	1630		1770	1789	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1676		1770	1859		1770	1630		1770	1789	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	152	308	126	272	4	300	17	84	10	70	25
RTOR Reduction (vph)	0	105	0	0	1	0	0	56	0	0	21	0
Lane Group Flow (vph)	27	355	0	126	275	0	300	45	0	10	74	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.5	17.4		5.1	21.0		12.1	19.9		0.7	8.5	
Effective Green, g (s)	1.5	17.4		5.1	21.0		12.1	19.9		0.7	8.5	
Actuated g/C Ratio	0.03	0.29		0.09	0.36		0.20	0.34		0.01	0.14	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	44	493		152	660		362	548		20	257	
v/s Ratio Prot	0.02	c0.21		c0.07	c0.15		c0.17	0.03		0.01	c0.04	
v/s Ratio Perm												
v/c Ratio	0.61	0.72		0.83	0.42		0.83	0.08		0.50	0.29	
Uniform Delay, d1	28.5	18.7		26.6	14.4		22.5	13.4		29.0	22.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	22.8	5.0		29.5	0.4		14.4	0.1		18.3	0.6	
Delay (s)	51.3	23.7		56.1	14.8		36.9	13.4		47.3	23.2	
Level of Service	D	С		Е	В		D	В		D	С	
Approach Delay (s)		25.2			27.8			31.0			25.5	
Approach LOS		С			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			27.6	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.65			2.2.0.						
Actuated Cycle Length (s)	,		59.1	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		63.1%			of Service)		В			
Analysis Period (min)			15			2. 00. 1100						
c Critical Lane Group			10									

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Movement Lane Configurations Volume (vph) Ideal Flow (vphpl) Total Lost time (s) Lane Util. Factor Frt Fit Protected Satd. Flow (port)	399 1900 4.0 1.00 1.00 0.95	WBR 147 1900 4.0 1.00	NBT 1344 1900	NBR 328	SBL	SBT			
Volume (vph) Ideal Flow (vphpl) Total Lost time (s) Lane Util. Factor Frt Flt Protected	399 1900 4.0 1.00 1.00	147 1900 4.0	344	329	有物				
Ideal Flow (vphpl) Total Lost time (s) Lane Util. Factor Frt Flt Protected	1900 4.0 1.00 1.00	1900 4.0		329	111	朴			
Total Lost time (s) Lane Util. Factor Frt Flt Protected	4.0 1.00 1.00	4.0	1900	320	265	917			
Lane Util. Factor Frt Flt Protected	1.00			1900	1900	1900			
Frt Flt Protected	1.00	1.00	4.0		4.0	4.0			
Flt Protected		1.00	0.95		0.97	0.95			
	0.05	0.85	0.93		1.00	1.00			
Cotd Flour (prot)	0.30	1.00	1.00		0.95	1.00			
Salu. Flow (piol)	1770	1583	3280		3433	3539			
Flt Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	1770	1583	3280		3433	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	434	160	374	357	288	997			
RTOR Reduction (vph)	0	108	263	0	0	0			
Lane Group Flow (vph)	434	52	468	0	288	997			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8							
Actuated Green, G (s)	14.2	14.2	11.6		6.1	21.7			
Effective Green, g (s)	14.2	14.2	11.6		6.1	21.7			
Actuated g/C Ratio	0.32	0.32	0.26		0.14	0.49			
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	572	512	866		477	1749			
v/s Ratio Prot	c0.25		0.14		0.08	c0.28			
v/s Ratio Perm		0.03							
v/c Ratio	0.76	0.10	0.54		0.60	0.57			
Uniform Delay, d1	13.3	10.4	13.9		17.8	7.8			
Progression Factor	1.00	1.00	1.00		1.00	1.00			
Incremental Delay, d2	5.7	0.1	0.7		2.2	0.5			
Delay (s)	19.0	10.5	14.6		19.9	8.3			
Level of Service	В	В	В		В	Α			
Approach Delay (s)	16.7		14.6			10.9			
Approach LOS	В		В			В			
Intersection Summary									
HCM 2000 Control Delay			13.2	Н	CM 2000	Level of Serv	ice I	В	
HCM 2000 Volume to Capacity	v ratio		0.73						
Actuated Cycle Length (s)	,		43.9	S	um of los	t time (s)	12.	0	
Intersection Capacity Utilization	n		59.7%			of Service		В	
Analysis Period (min)			15						
c Critical Lane Group									

Lane Configurations		۶	-	\rightarrow	•	•	•	1	†	/	-	ţ	1
Volume (vph) 23 15 84 650 14 86 32 682 193 66 1524 30 (deal Flow (vphpl) 1900 1900 1900 1900 1900 1900 1900 190	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (yphpl)	Lane Configurations	J,	T.		Jal.	4		14	44	ř.	19	41>	
Total Lost time (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 5.2 4.0 3.0 5.2 Lane UIII. Factor 1.00 1.00 0.95 0.95 1.00 0.95 1.00 1.00 0.95 Fit 1.00 0.87 1.00 0.97 1.00 1.00 0.85 1.00 1.00 0.95 Fit 1.00 0.87 1.00 0.97 1.00 1.00 0.85 1.00 1.00 0.95 Fit 1.00 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 Satd. Flow (prot) 1770 1625 1681 1648 1770 3539 1583 1770 3529 Fit Permitted 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 Satd. Flow (perm) 1770 1625 1681 1648 1770 3539 1583 1770 3529 Feak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Volume (vph)	23	15	84	650	14	86	32	682	193	66	1524	30
Lane Util. Factor 1.00 1.00 1.00 0.95 0.95 1.00 0.95 1.00 1.00 0.95 Fit 1.00 0.87 1.00 0.97 1.00 1.00 0.85 1.00 1.00 0.95 Fit 1.00 0.87 1.00 0.97 1.00 1.00 0.85 1.00 1.00 Fit Protected 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 Satd. Flow (prot) 1770 1625 1681 1648 1770 3539 1583 1770 3529 Fit Permitted 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 Satd. Flow (perm) 1770 1625 1681 1648 1770 3539 1583 1770 3529 Flex Permitted 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 Satd. Flow (perm) 1770 1625 1681 1648 1770 3539 1583 1770 3529 Flex Permitted 1.00 1.00 0.95 0.96 0.95 0.90 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Fit Protected	Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Fit Protected 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 Satd. Flow (prot) 1770 1625 1681 1648 1770 3539 1583 1770 3529 Fit Permitted 0.95 1.00 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 Satd. Flow (perm) 1770 1625 1681 1648 1770 3539 1583 1770 3529 Peak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Satd. Flow (prot) 1770 1625 1681 1648 1770 3539 1583 1770 3529 FIF Pemitted 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 FIF Pemitted 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 FIF Pemitted 0.95 1.00 0.95 0.96 0.95 1.00 1.00 0.95 1.00 Fir Peak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Frt	1.00	0.87		1.00	0.97		1.00	1.00	0.85	1.00	1.00	
Fit Permitted 0.95	Flt Protected	0.95	1.00		0.95	0.96		0.95	1.00	1.00	0.95	1.00	
Satid Flow (perm) 1770 1625 1681 1648 1770 3539 1583 1770 3529	Satd. Flow (prot)	1770	1625		1681	1648		1770	3539	1583	1770	3529	
Peak-hour factor, PHF 0.92 0.88 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <td>Flt Permitted</td> <td>0.95</td> <td>1.00</td> <td></td> <td>0.95</td> <td>0.96</td> <td></td> <td>0.95</td> <td>1.00</td> <td>1.00</td> <td>0.95</td> <td>1.00</td> <td></td>	Flt Permitted	0.95	1.00		0.95	0.96		0.95	1.00	1.00	0.95	1.00	
Adj. Flow (vph)	Satd. Flow (perm)	1770	1625		1681	1648		1770	3539	1583	1770	3529	
RTOR Reduction (vph)	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 25 78 0 410 397 0 35 741 210 72 1689 0 Turn Type Split NA Split NA Prot NA Free Prot NA Protected Phases Free Actuated Green, G (s) 6.8 6.8 33.3 33.3 3.6 68.8 130.0 6.9 72.1 Effective Green, g (s) 6.8 6.8 33.3 33.3 3.6 68.8 130.0 6.9 72.1 Actuated g/C Ratio 0.05 0.05 0.26 0.26 0.03 0.53 1.00 0.05 0.55 Clearance Time (s) 3.0 3.0 3.0 3.0 3.0 5.2 3.0 5.2 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 <	Adj. Flow (vph)	25	16	91	707	15	93	35	741	210	72	1657	33
Turn Type	RTOR Reduction (vph)	0	29	0	0	8	0	0	0	0	0	1	0
Protected Phases 7 7 7 8 8 8 5 2 1 1 6 Permitted Phases Actuated Green, G (s) 6.8 6.8 33.3 33.3 3.6 68.8 130.0 6.9 72.1 Effective Green, g (s) 6.8 6.8 6.8 33.3 33.3 3.6 68.8 130.0 6.9 72.1 Actuated g/C Ratio 0.05 0.05 0.26 0.26 0.03 0.53 1.00 0.05 0.55 Clearance Time (s) 3.0 3.0 3.0 3.0 3.0 5.2 3.0 5.2 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 Vehicle Extension (s) 0.05 0.05 0.05 0.26 0.26 0.03 0.53 1.00 0.05 0.55 Clearance Time (s) 3.0 3.0 3.0 3.0 3.0 3.0 5.2 3.0 5.2 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Lane Group Flow (vph)	25	78	0	410	397	0	35	741	210	72	1689	0
Permitted Phases	Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Actuated Green, G (s) 6.8 6.8 33.3 33.3 3.6 68.8 130.0 6.9 72.1 Effective Green, g (s) 6.8 6.8 33.3 33.3 3.6 68.8 130.0 6.9 72.1 Actuated g/C Ratio 0.05 0.05 0.05 0.26 0.26 0.03 0.53 1.00 0.05 0.55 Clearance Time (s) 3.0 3.0 3.0 3.0 3.0 5.2 3.0 5.2 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 Lane Grp Cap (vph) 92 85 430 422 49 1872 1583 93 1957 v/s Ratio Prot 0.01 c0.05 c0.24 0.24 c0.02 0.21 0.04 c0.48 v/s Ratio Perm 0.13 v/c Ratio 0.27 0.91 0.95 0.94 0.71 0.40 0.13 0.77 0.86 Uniform Delay, d1 59.2 61.3 47.6 47.4 62.7 18.2 0.0 60.8 24.7 Progression Factor 1.00 1.00 1.00 1.00 0.76 0.60 1.00 1.00 Incremental Delay, d2 0.6 68.1 31.3 28.9 32.9 0.6 0.2 29.8 5.3 Delay (s) 59.8 129.4 78.9 76.3 80.6 11.5 0.2 90.5 30.1 Level of Service E F E E F B A F C Approach Delay (s) 116.2 77.6 11.6 32.5 Approach LOS F E E F B A F C Intersection Summary HCM 2000 Control Delay 39.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 85.1% ICU Level of Service E Analysis Period (min) 15	Protected Phases	7	7		8	8		5	2		1	6	
Effective Green, g (s) 6.8 6.8 33.3 33.3 3.6 68.8 130.0 6.9 72.1 Actuated g/C Ratio 0.05 0.05 0.26 0.26 0.03 0.53 1.00 0.05 0.55 Clearance Time (s) 3.0 3.0 3.0 3.0 3.0 3.0 5.2 3.0 5.2 Vehicle Extension (s) 0.2 0.4 0.4 0.0 0.0	Permitted Phases									Free			
Actuated g/C Ratio 0.05 0.05 0.26 0.26 0.03 0.53 1.00 0.05 0.55 Clearance Time (s) 3.0 3.0 3.0 3.0 3.0 3.0 5.2 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Actuated Green, G (s)	6.8	6.8		33.3	33.3		3.6	68.8	130.0	6.9	72.1	
Clearance Time (s) 3.0 3.0 3.0 3.0 3.0 3.0 5.2 3.0 5.2 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Effective Green, g (s)	6.8	6.8		33.3	33.3		3.6	68.8	130.0	6.9	72.1	
Vehicle Extension (s) 0.2 0.4 0.04 0.13 0.77 0.86 Uniform Delay, d1 59.2 61.3 47.6 47.4 62.7 18.2 0.0 60.8 24.7 Progression Factor 1.00 1.00 1.00 0.06 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 <	Actuated g/C Ratio	0.05	0.05		0.26	0.26		0.03	0.53	1.00	0.05	0.55	
Lane Grp Cap (vph) 92 85 430 422 49 1872 1583 93 1957 v/s Ratio Prot 0.01 c0.05 c0.24 0.24 c0.02 0.21 0.04 c0.48 v/s Ratio Prom 0.13 0.13 v/s Ratio Perm 0.13 0.13 v/s Ratio Perm 0.13 0.13 v/s Ratio Perm 0.14 0.15 0.15 Uniform Delay, d1 59.2 61.3 47.6 47.4 62.7 18.2 0.0 60.8 24.7 Progression Factor 1.00 1.00 1.00 1.00 0.76 0.60 1.00 1.00 1.00 1.00 Incremental Delay, d2 0.6 68.1 31.3 28.9 32.9 0.6 0.2 29.8 5.3 Delay (s) 59.8 129.4 78.9 76.3 80.6 11.5 0.2 90.5 30.1 Level of Service E F E E F B A F C Approach Delay (s) 116.2 77.6 11.6 32.5 Approach LOS F E B C Intersection Summary HCM 2000 Control Delay 39.9 HCM 2000 Level of Service D HCM 2000 Control Delay 130.0 Sum of lost time (s) 14.2 Intersection Capacity Itilization 85.1% ICU Level of Service E Analysis Period (min) 15	Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
\(\text{V/s Ratio Prot } \) \(0.01 \) \(\text{co.05} \) \(\text{co.02} \) \(\text{co.02} \) \(0.24 \) \(\text{co.02} \) \(0.21 \) \(\text{co.04} \) \(\text{co.048} \) \(\text{V/s Ratio Prom } \) \(\text{V/s Ratio Prom } \) \(\text{co.02} \) \(0.91 \) \(0.95 \) \(0.94 \) \(0.71 \) \(0.40 \) \(0.13 \) \(0.77 \) \(0.86 \) \(\text{Uniform Delay, d1} \) \(59.2 \) \(61.3 \) \(47.6 \) \(47.4 \) \(62.7 \) \(18.2 \) \(0.0 \) \(60.8 \) \(24.7 \) \\ \(24.7 \) \\ \(24.7 \) \\ \(27.7 \) \(28.6 \) \\ \(27.7 \) \\ \(28.6 \) \\ \(27.7 \) \\ \(28.6 \) \\ \(27.7 \) \\ \(28.6 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(53.3 \) \\ \(29.8 \) \\ \(59.8 \) \\ \(29.4 \) \\ \(78.9 \) \\ \(76.3 \) \\ \(80.6 \) \\ \(11.5 \) \\ \(0.2 \) \\ \(90.5 \) \\ \(30.1 \) \\ \(29.5 \) \\ \(30.1 \) \\ \(29.7 \) \\ \(6 \) \\ \(11.6 \) \\ \(32.5 \) \\ \(6 \) \\ \(11.6 \) \\ \(32.5 \) \\ \(6 \) \\ \(11.6 \) \\ \(32.5 \) \\ \(77.6 \) \\ \(11.6 \) \\ \(32.5 \) \\ \(77.6 \) \\\ \(11.6 \) \\\ \(89.7 \) \\ \(77.6 \) \\\ \(11.6 \) \\\ \(89.7 \) \\\\ \(89.7 \) \\\\ \(89.7 \) \\\\ \(89.7 \) \\\\ \(89.7 \) \\\\ \(89.7 \) \\\\ \(89.7 \) \\\\\ \(89.7 \) \\\\\\\\\\	Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
\(\text{V/s}\) Ratio \(\text{Perm}\) \(\text{V/s}\) Ratio \(\text{Perm}\) \(\text{V/s}\) Ratio \(\text{Q.27}\) \(\text{0.91}\) \(\text{0.95}\) \(\text{0.94}\) \(\text{0.71}\) \(\text{0.40}\) \(\text{0.13}\) \(\text{0.77}\) \(\text{0.86}\) \(\text{Uniform Delay, d1}\) \(\text{59.2}\) \(\text{61.3}\) \(\text{47.6}\) \(\text{47.4}\) \(\text{62.7}\) \(\text{18.2}\) \(\text{0.0}\) \(\text{60.8}\) \(\text{24.7}\) \(\text{Progression Factor}\) \(\text{1.00}\) \(\text{1.10}\) \(\text{1.00}\)	Lane Grp Cap (vph)	92	85		430	422		49	1872	1583	93	1957	
v/c Ratio 0.27 0.91 0.95 0.94 0.71 0.40 0.13 0.77 0.86 Uniform Delay, d1 59.2 61.3 47.6 47.4 62.7 18.2 0.0 60.8 24.7 Progression Factor 1.00 1.00 1.00 0.76 0.60 1.00 1.00 1.00 Incremental Delay, d2 0.6 68.1 31.3 28.9 32.9 0.6 0.2 29.8 5.3 Delay (s) 59.8 129.4 78.9 76.3 80.6 11.5 0.2 90.5 30.1 1.00 </td <td>v/s Ratio Prot</td> <td>0.01</td> <td>c0.05</td> <td></td> <td>c0.24</td> <td>0.24</td> <td></td> <td>c0.02</td> <td>0.21</td> <td></td> <td>0.04</td> <td>c0.48</td> <td></td>	v/s Ratio Prot	0.01	c0.05		c0.24	0.24		c0.02	0.21		0.04	c0.48	
Uniform Delay, d1 59.2 61.3 47.6 47.4 62.7 18.2 0.0 60.8 24.7 Progression Factor 1.00 1.00 1.00 1.00 0.76 0.60 1.00 1.00 1.00 1.00 1.00 1.00 1.0	v/s Ratio Perm									0.13			
Progression Factor 1.00 1.00 1.00 1.00 0.60 0.60 1.00 1.00 1.00 Incremental Delay, d2 0.6 68.1 31.3 28.9 32.9 0.6 0.2 29.8 5.3 Delay (s) 59.8 129.4 78.9 76.3 80.6 11.5 0.2 90.5 30.1 Level of Service E F E E F B A F C Approach Delay (s) 116.2 77.6 11.6 32.5 32.5 Approach LOS F E B C C Intersection Summary HCM 2000 Control Delay 39.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.89 Actuated Cycle Length (s) 13.0 Sum of lost time (s) 14.2 Intersection Capacity Utilization 85.1% ICU Level of Service E Analysis Period (min) 15	v/c Ratio	0.27	0.91		0.95	0.94		0.71	0.40	0.13	0.77	0.86	
Incremental Delay, d2	Uniform Delay, d1	59.2	61.3		47.6	47.4		62.7	18.2	0.0	60.8	24.7	
Delay (s) 59.8 129.4 78.9 76.3 80.6 11.5 0.2 90.5 30.1 Level of Service E F E E F B A F C Approach Delay (s) 116.2 77.6 11.6 32.5 A Approach LOS F E B C C HCM 2000 Control Delay HCM 2000 Control Delay HCM 2000 Volume to Capacity ratio Actuated Cycle Length (s) 130.0 Sum of lost time (s) 14.2 Intersection Capacity Utilization 85.1% ICU Level of Service E Analysis Period (min) 15	Progression Factor	1.00	1.00		1.00	1.00		0.76	0.60	1.00	1.00	1.00	
Level of Service E F E E F B A F C Approach Delay (s) 116.2 77.6 11.6 32.5 Approach LOS F E B C Intersection Summary HCM 2000 Control Delay 39.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.89 Actuated Cycle Length (s) 130.0 Sum of lost time (s) 14.2 Intersection Capacity Utilization 85.1% ICU Level of Service E Analysis Period (min) 15	Incremental Delay, d2	0.6	68.1		31.3	28.9		32.9	0.6	0.2	29.8	5.3	
Approach Delay (s) 116.2 77.6 11.6 32.5 Approach LOS F E B C Intersection Summary HCM 2000 Control Delay 39.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.89 Actuated Cycle Length (s) 130.0 Sum of lost time (s) 14.2 Intersection Capacity Utilization 85.1% ICU Level of Service E Analysis Period (min) 15	Delay (s)	59.8	129.4		78.9	76.3		80.6	11.5	0.2	90.5	30.1	
Approach LOS F E B C Intersection Summary HCM 2000 Control Delay 39.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.89 Actuated Cycle Length (s) 130.0 Sum of lost time (s) 14.2 Intersection Capacity Utilization 85.1% ICU Level of Service E Analysis Period (min) 15	Level of Service	Е	F		Е	Е		F	В	Α	F	С	
HCM 2000 Control Delay 39.9 HCM 2000 Level of Service D	Approach Delay (s)		116.2			77.6			11.6			32.5	
HCM 2000 Control Delay 39.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.89	Approach LOS		F			Е			В			С	
HCM 2000 Volume to Capacity ratio 0.89 Actuated Cycle Length (s) 130.0 Sum of lost time (s) 14.2 Intersection Capacity Utilization 85.1% ICU Level of Service E Analysis Period (min) 15	Intersection Summary												
Actuated Cycle Length (s) 130.0 Sum of lost time (s) 14.2 Intersection Capacity Utilization 85.1% ICU Level of Service E Analysis Period (min) 15	HCM 2000 Control Delay			39.9	Н	CM 2000	Level of	Service		D			
Actuated Cycle Length (s) 130.0 Sum of lost time (s) 14.2 Intersection Capacity Utilization 85.1% ICU Level of Service E Analysis Period (min) 15		city ratio		0.89									
Intersection Capacity Utilization 85.1% ICU Level of Service E Analysis Period (min) 15	Actuated Cycle Length (s)			130.0	Sum of lost time (s)					14.2			
Analysis Period (min) 15		tion		85.1%				1		Е			
	Analysis Period (min)			15									

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Movement EBL EBT EBR WBL WBT WBR Lane Configurations 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NBL ⅓	NBT ↑↑↑	NBR	SBL	ODT	
January Company of the Company of th		AAT.			SBT	SBR
	191	TTP		14	41	
Volume (vph) 31 11 203 13 13 51		828	32	125	2043	27
Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900	1900	1900	1900	1900	1900	1900
Total Lost time (s) 4.0 4.0 4.0 4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor 0.95 0.95 1.00 1.00 1.00	1.00	0.91		1.00	0.95	
Frt 1.00 1.00 0.85 1.00 0.88	1.00	0.99		1.00	1.00	
Flt Protected 0.95 0.98 1.00 0.95 1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot) 1681 1728 1583 1770 1640	1770	5057		1770	3532	
Flt Permitted 0.95 0.98 1.00 0.95 1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm) 1681 1728 1583 1770 1640	1770	5057		1770	3532	
Peak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph) 34 12 221 14 14 55	208	900	35	136	2221	29
RTOR Reduction (vph) 0 0 209 0 53 0	0	2	0	0	0	0
Lane Group Flow (vph) 23 23 12 14 16 0	208	933	0	136	2250	0
Turn Type Split NA Prot Split NA	Prot	NA		Prot	NA	
Protected Phases 7 7 7 8 8	1	6		5	2	
Permitted Phases						
Actuated Green, G (s) 6.8 6.8 4.8 4.8	10.0	82.7		18.0	90.7	
Effective Green, g (s) 6.8 6.8 4.8 4.8	10.0	84.4		18.0	92.4	
Actuated g/C Ratio 0.05 0.05 0.05 0.04 0.04	0.08	0.65		0.14	0.71	
Clearance Time (s) 4.0 4.0 4.0 4.0	4.0	5.7		4.0	5.7	
Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2	0.2	4.2		0.2	4.2	
Lane Grp Cap (vph) 87 90 82 65 60	136	3283		245	2510	
v/s Ratio Prot c0.01 0.01 0.01 c0.01	c0.12	0.18		0.08	c0.64	
v/s Ratio Perm						
v/c Ratio 0.26 0.26 0.14 0.22 0.27	1.53	0.28		0.56	0.90	
Uniform Delay, d1 59.2 59.2 58.8 60.8 60.9	60.0	9.8		52.3	15.0	
Progression Factor 1.00 1.00 1.00 1.00 1.00	0.85	0.54		0.83	0.47	
Incremental Delay, d2 0.6 0.5 0.3 0.6 0.9	269.3	0.2		0.7	2.8	
Delay (s) 59.8 59.7 59.1 61.4 61.8	320.4	5.5		44.3	9.9	
Level of Service E E E E	F	Α		D	Α	
Approach Delay (s) 59.2 61.7		62.8			11.8	
Approach LOS E E		Е			В	
Intersection Summary						
HCM 2000 Control Delay 31.2 HCM 2000 Level of	Service		С			
HCM 2000 Volume to Capacity ratio 0.89			16.0			
Actuated Cycle Length (s) 130.0 Sum of lost time (s)	Sum of lost time (s)					
Intersection Capacity Utilization 85.7% ICU Level of Service			Е			
Analysis Period (min) 15						
c Critical Lane Group						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	ৰ	54,	,tc	4	71	34,46	ተተኩ		Ja.	444	7
Volume (vph)	176	82	740	161	189	56	828	824	162	66	1397	794
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	0.97	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1737	1583	1681	1762	1583	3433	4960		1770	5085	1583
Flt Permitted	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1681	1737	1583	1681	1762	1583	3433	4960		1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	89	804	175	205	61	900	896	176	72	1518	863
RTOR Reduction (vph)	0	0	0	0	0	51	0	20	0	0	0	0
Lane Group Flow (vph)	138	142	804	157	223	10	900	1052	0	72	1518	863
Turn Type	Split	NA	Free	Split	NA	Perm	Prot	NA		Prot	NA	Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			Free			8						Free
Actuated Green, G (s)	14.4	14.4	130.0	20.6	20.6	20.6	38.1	69.6		9.4	40.9	130.0
Effective Green, g (s)	14.4	14.4	130.0	20.6	20.6	20.6	38.1	69.6		9.4	40.9	130.0
Actuated g/C Ratio	0.11	0.11	1.00	0.16	0.16	0.16	0.29	0.54		0.07	0.31	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		2.2	2.2	2.2	3.0	3.5		2.0	2.5	
Lane Grp Cap (vph)	186	192	1583	266	279	250	1006	2655		127	1599	1583
v/s Ratio Prot	c0.08	0.08		0.09	c0.13		c0.26	0.21		0.04	c0.30	
v/s Ratio Perm			0.51			0.01						0.55
v/c Ratio	0.74	0.74	0.51	0.59	0.80	0.04	0.89	0.40		0.57	0.95	0.55
Uniform Delay, d1	56.0	56.0	0.0	50.8	52.7	46.3	44.0	17.8		58.3	43.5	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.95		0.71	0.66	1.00
Incremental Delay, d2	14.7	13.9	1.2	2.6	14.0	0.0	8.6	0.4		1.7	7.7	0.7
Delay (s)	70.7	69.8	1.2	53.3	66.7	46.3	47.5	17.3		43.2	36.5	0.7
Level of Service	Е	Е	Α	D	Е	D	D	В		D	D	Α
Approach Delay (s)		19.0			59.1			31.1			24.1	
Approach LOS		В			Е			С			С	
Intersection Summary												
HCM 2000 Control Delay			28.1	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acitv ratio		0.88									
Actuated Cycle Length (s)	,		130.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliz	ation		80.9%			of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			14.54			74		ተተተ	ř.	1	tttt	
Volume (vph)	0	0	1482	0	0	453	0	1360	245	618	1680	0
	900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1611	0	0	492	0	1478	266	672	1826	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	110	0	0	0
Lane Group Flow (vph)	0	0	1611	0	0	492	0	1478	156	672	1826	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			50.2			65.0		27.8	27.8	29.2	36.0	
Effective Green, g (s)			50.2			65.0		27.8	27.8	29.2	36.0	
Actuated g/C Ratio			0.77			1.00		0.43	0.43	0.45	0.55	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			2323			1611		2174	677	795	3549	
v/s Ratio Prot			0.22					c0.29		c0.38	0.28	
v/s Ratio Perm			0.35			0.31			0.10			
v/c Ratio			0.69			0.31		0.68	0.23	0.85	0.51	
Uniform Delay, d1			3.6			0.0		15.0	11.8	15.9	9.0	
Progression Factor			1.00			1.00		1.00	1.00	1.09	0.91	
Incremental Delay, d2			0.9			0.5		1.7	0.8	5.3	0.3	
Delay (s)			4.5			0.5		16.7	12.6	22.7	8.5	
Level of Service			Α			Α		В	В	С	Α	
Approach Delay (s)		4.5			0.5			16.1			12.3	
Approach LOS		Α			Α			В			В	
Intersection Summary												
HCM 2000 Control Delay			10.5	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity r.	atio		0.76									
Actuated Cycle Length (s)			65.0	S	um of los	t time (s)			8.0			
Intersection Capacity Utilization			82.9%	IC	CU Level	of Service	:		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	4	71				34, 46	44			44	7
Volume (vph)	382	0	110	0	0	0	570	576	0	0	1002	585
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.91	0.95				0.97	0.95			0.95	1.00
Frt	1.00	0.99	0.85				1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1605	1504				3433	3539			3539	1583
Flt Permitted	0.95	0.95	1.00				0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1605	1504				3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	415	0	120	0	0	0	620	626	0	0	1089	636
RTOR Reduction (vph)	0	56	89	0	0	0	0	0	0	0	0	292
Lane Group Flow (vph)	216	155	19	0	0	0	620	626	0	0	1089	344
Turn Type	Split	NA	Perm				Prot	NA			NA	Perm
Protected Phases	4	4					5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	14.2	14.2	14.2				19.0	57.8			34.8	34.8
Effective Green, g (s)	14.2	14.2	14.2				19.0	57.8			34.8	34.8
Actuated g/C Ratio	0.18	0.18	0.18				0.24	0.72			0.43	0.43
Clearance Time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	298	284	266				815	2556			1539	688
v/s Ratio Prot	c0.13	0.10					c0.18	0.18			c0.31	
v/s Ratio Perm			0.01									0.22
v/c Ratio	0.72	0.55	0.07				0.76	0.24			0.71	0.50
Uniform Delay, d1	31.1	30.0	27.4				28.4	3.7			18.4	16.3
Progression Factor	1.00	1.00	1.00				1.00	1.00			0.55	0.92
Incremental Delay, d2	8.5	2.1	0.1				4.2	0.2			1.1	1.1
Delay (s)	39.5	32.1	27.5				32.6	4.0			11.4	16.1
Level of Service	D	С	С				С	Α			В	В
Approach Delay (s)		34.2			0.0			18.2			13.1	
Approach LOS		С			Α			В			В	
Intersection Summary												
HCM 2000 Control Delay			18.1	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	acity ratio		0.73									
Actuated Cycle Length (s)	·		80.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utiliz	ation		65.7%	IC	U Level	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				jąį,	4	74	140	44			44	ľ
Volume (vph)	0	0	0	524	0	531	347	612	0	0	1063	516
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.91	0.95	1.00	0.95			0.95	1.00
Frt				1.00	0.92	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.98	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1520	1504	1770	3539			3539	1583
Flt Permitted				0.95	0.98	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1520	1504	1770	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	570	0	577	377	665	0	0	1155	561
RTOR Reduction (vph)	0	0	0	0	56	208	0	0	0	0	0	361
Lane Group Flow (vph)	0	0	0	399	328	156	377	665	0	0	1155	200
Turn Type				Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases				. 8	8		5	2			6	
Permitted Phases						8						6
Actuated Green, G (s)				20.9	20.9	20.9	18.6	51.1			28.5	28.5
Effective Green, g (s)				20.9	20.9	20.9	18.6	51.1			28.5	28.5
Actuated g/C Ratio				0.26	0.26	0.26	0.23	0.64			0.36	0.36
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				439	397	392	411	2260			1260	563
v/s Ratio Prot				c0.24	0.22		c0.21	0.19			c0.33	
v/s Ratio Perm						0.10						0.13
v/c Ratio				0.91	0.83	0.40	0.92	0.29			0.92	0.35
Uniform Delay, d1				28.6	27.8	24.4	29.9	6.4			24.6	19.0
Progression Factor				1.00	1.00	1.00	1.20	0.97			0.83	0.37
Incremental Delay, d2				22.3	13.1	0.7	23.8	0.3			10.2	1.4
Delay (s)				50.9	40.9	25.0	59.7	6.6			30.6	8.4
Level of Service				D	D	С	Е	Α			С	Α
Approach Delay (s)		0.0			39.4			25.8			23.4	
Approach LOS		Α			D			С			С	
Intersection Summary												
HCM 2000 Control Delay			28.7	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capaci	ty ratio		0.91									
Actuated Cycle Length (s)	•		80.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utilization	on		81.1%	IC	U Level	of Service)		D			
Analysis Period (min)			15									
c Critical Lane Group												

Movement Lane Configurations Volume (vph)	WBL	WBR	NBT	NBR					
		- 20		INRK	SBL	SBT			
Volume (vph)		il.	1 13		19	^			
	163	157	981	161	1	1416			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95			
Frt	1.00	0.85	0.98		1.00	1.00			
Flt Protected	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (prot)	1770	1583	3464		1770	3539			
Flt Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	1770	1583	3464		1770	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	177	171	1066	175	1	1539			
RTOR Reduction (vph)	0	143	13	0	0	0			
Lane Group Flow (vph)	177	28	1228	0	1	1539			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8							
Actuated Green, G (s)	13.2	13.2	54.0		0.8	58.8			
Effective Green, g (s)	13.2	13.2	54.0		0.8	58.8			
Actuated g/C Ratio	0.16	0.16	0.68		0.01	0.73			
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	292	261	2338		17	2601			
v/s Ratio Prot	c0.10		0.35		0.00	c0.43			
//s Ratio Perm		0.02							
v/c Ratio	0.61	0.11	0.53		0.06	0.59			
Uniform Delay, d1	31.0	28.4	6.5		39.2	5.0			
Progression Factor	1.00	1.00	1.14		1.00	1.00			
Incremental Delay, d2	3.5	0.2	0.8		1.5	1.0			
Delay (s)	34.5	28.6	8.2		40.7	6.0			
Level of Service	С	С	Α		D	Α			
Approach Delay (s)	31.6		8.2			6.0			
Approach LOS	С		Α			Α			
Intersection Summary									
HCM 2000 Control Delay			9.7	Н	CM 2000	Level of Servi	e	Α	
HCM 2000 Volume to Capac	city ratio		0.63						
Actuated Cycle Length (s)			80.0	S	um of los	t time (s)		12.0	
Intersection Capacity Utilizat	tion		54.8%	IC	CU Level	of Service		Α	
Analysis Period (min)			15						
Critical Lane Group									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3/2	44		Jal.	47		Jal.	44	il.	19	1	
Volume (vph)	154	80	143	439	220	346	144	509	211	160	555	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.90		1.00	0.91		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3199		1770	3215		1770	3539	1583	1770	3383	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3199		1770	3215		1770	3539	1583	1770	3383	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	167	87	155	477	239	376	157	553	229	174	603	252
RTOR Reduction (vph)	0	133	0	0	217	0	0	0	163	0	45	0
Lane Group Flow (vph)	167	109	0	477	398	0	157	553	66	174	810	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	12.9	11.9		22.1	21.1		7.0	24.4	24.4	8.0	25.4	
Effective Green, g (s)	12.9	11.9		22.1	21.1		7.0	24.4	24.4	8.0	25.4	
Actuated g/C Ratio	0.15	0.14		0.26	0.25		0.08	0.29	0.29	0.09	0.30	
Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	268	447		460	798		145	1015	454	166	1010	
v/s Ratio Prot	0.09	0.03		c0.27	c0.12		0.09	0.16		c0.10	c0.24	
v/s Ratio Perm									0.04			
v/c Ratio	0.62	0.24		1.04	0.50		1.08	0.54	0.14	1.05	0.80	
Uniform Delay, d1	33.8	32.5		31.4	27.4		39.0	25.6	22.5	38.5	27.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.5	0.3		51.8	0.5		98.6	0.6	0.1	83.2	4.7	
Delay (s)	38.2	32.8		83.3	27.9		137.6	26.2	22.7	121.7	32.1	
Level of Service	D	С		F	С		F	С	С	F	С	
Approach Delay (s)		35.0			52.1			44.0			47.3	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			46.5	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capac	ity ratio		0.89									
Actuated Cycle Length (s)			85.0	S	um of los	t time (s)			18.6			
Intersection Capacity Utilizat	ion		78.9%	IC	CU Level	of Service)		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3,1	ተ	74	,ht	7+		140	To		10	4	7
Volume (vph)	98	127	315	124	73	11	589	293	51	41	209	372
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1826		1770	1822		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1826		1770	1822		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	107	138	342	135	79	12	640	318	55	45	227	404
RTOR Reduction (vph)	0	0	291	0	6	0	0	6	0	0	0	320
Lane Group Flow (vph)	107	138	51	135	85	0	640	367	0	45	227	84
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	9.8	12.5	12.5	7.1	9.8		32.5	45.3		3.3	16.1	16.1
Effective Green, q (s)	9.8	12.5	12.5	7.1	9.8		32.5	45.3		3.3	16.1	16.1
Actuated g/C Ratio	0.12	0.15	0.15	0.08	0.12		0.39	0.54		0.04	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	206	276	235	149	212		683	980		69	356	302
v/s Ratio Prot	0.06	c0.07		c0.08	0.05		c0.36	0.20		0.03	c0.12	
v/s Ratio Perm			0.03									0.05
v/c Ratio	0.52	0.50	0.22	0.91	0.40		0.94	0.37		0.65	0.64	0.28
Uniform Delay, d1	35.0	33.0	31.5	38.2	34.5		24.9	11.2		39.9	31.4	29.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.2	1.4	0.5	46.6	1.2		20.3	0.2		20.0	3.7	0.5
Delay (s)	37.2	34.4	32.0	84.8	35.7		45.2	11.5		59.8	35.1	29.6
Level of Service	D	С	С	F	D		D	В		Е	D	С
Approach Delay (s)		33.5			65.0			32.8			33.4	
Approach LOS		С			Е			С			С	
Intersection Summary												
HCM 2000 Control Delay			36.0	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.78									
Actuated Cycle Length (s)	•	84.2			Sum of lost time (s)				16.0			
Intersection Capacity Utiliza				ICU Level of Service					С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Sela	44	71	Jal.	44	74	34.34	†1 3		1	4	7
Volume (vph)	426	893	314	150	535	68	348	252	17	105	210	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3506		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3506		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	463	971	341	163	582	74	378	274	18	114	228	217
RTOR Reduction (vph)	0	0	225	0	0	52	0	5	0	0	0	177
Lane Group Flow (vph)	463	971	116	163	582	22	378	287	0	114	228	40
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	13.1	28.0	28.0	9.1	24.0	24.0	11.7	19.8		7.1	15.2	15.2
Effective Green, g (s)	13.1	28.0	28.0	9.1	24.0	24.0	11.7	19.8		7.1	15.2	15.2
Actuated g/C Ratio	0.16	0.34	0.34	0.11	0.29	0.29	0.14	0.24		0.09	0.18	0.18
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	547	1205	539	195	1033	462	488	844		152	344	292
v/s Ratio Prot	c0.13	c0.27		0.09	0.16		c0.11	0.08		0.06	c0.12	
v/s Ratio Perm			0.07			0.01						0.03
v/c Ratio	0.85	0.81	0.22	0.84	0.56	0.05	0.77	0.34		0.75	0.66	0.14
Uniform Delay, d1	33.6	24.6	19.3	35.8	24.7	20.9	34.0	25.8		36.7	31.1	28.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	11.6	4.0	0.2	25.5	0.7	0.0	7.5	0.2		18.6	4.7	0.2
Delay (s)	45.1	28.7	19.5	61.3	25.4	20.9	41.5	26.0		55.3	35.9	28.2
Level of Service	D	С	В	Е	С	С	D	С		Ε	D	С
Approach Delay (s)		31.2			32.1			34.8			36.9	
Approach LOS		С			С			С			D	
Intersection Summary												
HCM 2000 Control Delay			32.8	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.79									
Actuated Cycle Length (s)	•		82.2	Sum of lost time (s)					18.2			
Intersection Capacity Utiliz	ation		69.1%	ICU Level of Service					С			
Analysis Period (min)			15									
c Critical Lane Group												

Lane Configurations		•	-	\rightarrow	•	•	•	~	†	/	-	ţ	4
Volume (vph)	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl) 1900	Lane Configurations	Je.	7.		Jal.	7.		140	10			4	7
Total Lost time (s) 3.5 6.0 3.5 6.0 4.0 4.0 5.5 5.5 5.5 cane Util. Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume (vph)	138	957	24	51	567	92	55	214		59	101	
Lane Util. Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Ideal Flow (vphpl)		1900	1900	1900		1900	1900	1900	1900	1900		
Fit Protected	Total Lost time (s)	3.5	6.0		3.5	6.0		4.0				5.5	5.5
Fit Protected 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.98 1.00	Lane Util. Factor					1.00						1.00	
Satd. Flow (prot) 1770 1856 1770 1824 1770 1779 1829 1583 Fit Permitted 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.98 1.00 Satd. Flow (perm) 1770 1856 1770 1824 1770 1779 1829 1583 Feak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Frt					0.98							0.85
Fit Permitted 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.98 1.00 Satd. Flow (perm) 1770 1856 1770 1824 1770 1779 1829 1583 1583 1592 1693 1593 1593 1593 1593 1593 1593 1593 15	Flt Protected												
Satd Flow (perm) 1770 1856 1770 1824 1770 1779 1829 1583 Peak-hour factor, PHF 0.92 0.	Satd. Flow (prot)												
Peak-hour factor, PHF	Flt Permitted	0.95			0.95			0.95	1.00				1.00
Adj. Flow (vph)	Satd. Flow (perm)	1770	1856		1770	1824		1770	1779			1829	1583
RTOR Reduction (vph)	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 150 1066 0 55 712 0 60 322 0 0 174 16	Adj. Flow (vph)	150	1040	26	55	616	100	60	233	100	64	110	118
Turn Type	RTOR Reduction (vph)	0	0	0		4	0	0	11	0	0	0	102
Protected Phases 1 6 5 2 4 4 4 3 3 3 3 Permitted Phases	Lane Group Flow (vph)	150	1066	0	55	712	0	60	322	0		174	16
Permitted Phases Actuated Green, G (s) 13.7 77.5 4.5 68.3 22.0 22.0 18.9 18.9 Actuated Green, G (s) 13.7 77.5 4.5 68.3 22.0 22.0 18.9 18.9 Actuated g/C Ratio 0.10 0.55 0.03 0.48 0.16 0.16 0.13 0.13 Clearance Time (s) 3.5 6.0 3.5 6.0 4.0 4.0 4.0 5.5 5.5 Vehicle Extension (s) 2.5 5.0 2.5 5.0 4.5 4.5 4.5 4.5 4.5 Lane Grp Cap (vph) 170 1013 56 877 274 275 243 210 V/s Ratio Prot 0.08 c0.57 0.03 0.39 0.03 c0.18 c0.10 V/s Ratio Perm 0.01 V/s Ratio 0.88 1.05 0.98 0.81 0.22 1.17 0.72 0.07 Uniform Delay, d1 63.3 32.2 68.7 31.3 52.4 60.0 58.9 53.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Actuated Green, G (s) 13.7 77.5 4.5 68.3 22.0 22.0 18.9 18.9 Effective Green, g (s) 13.7 77.5 4.5 68.3 22.0 22.0 18.9 18.9 18.9 Actuated g/C Ratio 0.10 0.55 0.03 0.48 0.16 0.16 0.16 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13	Protected Phases	1	6		5	2		4	4		3	3	
Effective Green, g (s) 13.7 77.5 4.5 68.3 22.0 22.0 18.9 18.9 Actuated g/C Ratio 0.10 0.55 0.03 0.48 0.16 0.16 0.13 0.13 Clearance Time (s) 3.5 6.0 3.5 6.0 4.0 4.0 5.5 5.5 Lane Grp Cap (vph) 170 1013 56 877 274 275 243 210 v/s Ratio Prot c0.08 c0.57 0.03 0.39 0.03 c0.18 c0.10 v/s Ratio Prot c0.08 c0.57 0.03 0.39 0.03 c0.18 c0.10 v/s Ratio Prot c0.08 c0.57 0.03 0.39 0.03 c0.18 CO.10 v/s Ratio Prot c0.08 c0.57 C0.10 v/s Ratio	Permitted Phases												3
Actuated g/C Ratio 0.10 0.55 0.03 0.48 0.16 0.16 0.13 0.13 0.13 Clearance Time (s) 3.5 6.0 3.5 6.0 4.0 4.0 4.0 5.5 5.5 Vehicle Extension (s) 2.5 5.0 2.5 5.0 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	Actuated Green, G (s)	13.7	77.5		4.5	68.3		22.0	22.0			18.9	18.9
Clearance Time (s) 3.5 6.0 3.5 6.0 4.0 4.0 5.5 5.5 Vehicle Extension (s) 2.5 5.0 2.5 5.0 4.5 4.0 1.00	Effective Green, g (s)	13.7	77.5		4.5	68.3		22.0	22.0			18.9	18.9
Vehicle Extension (s) 2.5 5.0 2.5 5.0 4.5	Actuated g/C Ratio	0.10	0.55		0.03	0.48		0.16	0.16			0.13	0.13
Lane Grp Cap (vph) 170 1013 56 877 274 275 243 210 v/s Ratio Prot c0.08 c0.57 0.03 0.39 0.03 c0.18 c0.10 v/s Ratio Prot c0.08 c0.57 0.03 0.39 0.03 c0.18 c0.10 v/s Ratio Pem 0.01 c75 0.098 0.81 0.22 1.17 0.72 0.07 c/s Ratio Pem 0.01 63.3 32.2 68.7 31.3 52.4 60.0 58.9 53.8 c75 0.01 c/s Ratio Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Clearance Time (s)												
\(\text{v/s}\) Ratio Prot \(\text{c0.08} \) c0.57 \(\text{c0.03} \) 0.39 \(\text{c0.03} \) c0.18 \(\text{c0.10} \) \(\text{v/s}\) Ratio Perm \(\text{colored} \) 0.01 \(\text{v/c}\) Ratio \(\text{colored} \) 0.88 \(\text{1.05} \) 0.98 \(\text{0.81} \) 0.22 \(\text{1.17} \) 0.72 \(\text{0.07} \) 0.72 \(\text{0.07} \) 0.77 \(\text{0.07} \) 0.78 \(\text{colored} \) 0.98 \(\text{colored} \) 0.81 \(\text{0.22} \) 1.17 \(\text{0.07} \) 0.72 \(\text{0.07} \) 0.78 \(\text{0.08} \) 7.33 \(\text{52.4} \) 60.0 \(\text{58.9} \) 53.8 \(\text{53.8} \) Progression Factor \(\text{1.00} \) 1.00 \(\text{1.00} \) 0.3 \(\text{Delay} \) (s) \(\text{10.7} \) 75.1 \(\text{182.0} \) 37.8 \(\text{53.1} \) 168.6 \(\text{69.8} \) 54.1 \(\text{168.6} \) 69.8 \(\text{54.1} \) \(\text{151.0} \) 63.5 \(\text{Approach Delay} \) 78.3 \(\text{48.1} \) 151.0 \(\text{63.5} \) 7 \(\text{F} \) E \(\text{151.0} \) 63.5 \(\text{Approach LOS} \) E \(\text{D} \) 78.3 \(\text{48.1} \) 151.0 \(\text{63.5} \) 7 \(\text{F} \) E \(\text{151.0} \) 63.5 \(\text{40.00 Volume to Capacity ratio} \) 1.02 \(\text{Actuated Cycle Length (s)} \) 141.9 \(\text{Sum of lost time (s)} \) 19.0 \(\text{164.000 Volume to Capacity Utilization} \) 96.9% \(\text{ICU Level of Service} \) F \(\text{Analysis Period (min)} \) 15	Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
\(\text{v/s} \) Ratio \(\text{Perm} \) \(\text{v/s} \) Ratio \(\text{Perm} \) \(\text{v/s} \) Ratio \(\text{0.88} \) \(1.05 \) \(0.98 \) \(0.81 \) \(0.22 \) \(1.17 \) \(0.72 \) \(0.07 \) \(\text{Uniform Delay, d1} \) \(63.3 \) \(32.2 \) \(68.7 \) \(31.3 \) \(52.4 \) \(60.0 \) \(58.9 \) \(53.8 \) \(\text{Progression Factor} \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.00 \) \(1.09 \) \(0.3 \) \(\text{Delay (s)} \) \(108.7 \) \(75.1 \) \(182.0 \) \(37.8 \) \(53.1 \) \(168.6 \) \(69.8 \) \(54.1 \) \(1.02 \) \(4.81 \) \(151.0 \) \(63.5 \) \(4.81 \) \(151.0 \) \(63.5 \) \(4.81 \) \(151.0 \) \(15.	Lane Grp Cap (vph)	170	1013		56	877		274	275			243	210
w/c Ratio 0.88 1.05 0.98 0.81 0.22 1.17 0.72 0.07 Uniform Delay, d1 63.3 32.2 68.7 31.3 52.4 60.0 58.9 53.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Incremental Delay, d2 37.4 42.9 113.3 6.5 0.7 108.7 10.9 0.3 Delay (s) 100.7 75.1 182.0 37.8 53.1 168.6 69.8 54.1 Level of Service F E F D D F E D Approach LOS T 78.3 48.1 151.0 63.5 Approach LOS E D F E E Intersection Summary HCM 2000 Control Delay 78.7 HCM 2000 Level of Service E HCM 2000 Volume to Capacity ratio 1.02 Actuated Cycle Length (s) 141.9 Sum of lost time (s) 19.0 Intersection Capacity Utilization 96.9% ICU Level of Service F	v/s Ratio Prot	c0.08	c0.57		0.03	0.39		0.03	c0.18			c0.10	
Uniform Delay, d1 63.3 32.2 68.7 31.3 52.4 60.0 58.9 53.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	v/s Ratio Perm												0.01
Progression Factor 1.00 0.3 3.3 1.02	v/c Ratio	0.88	1.05		0.98	0.81		0.22	1.17			0.72	0.07
Incremental Delay, d2 37.4 42.9 113.3 6.5 0.7 108.7 10.9 0.3 Delay (s) 100.7 75.1 182.0 37.8 53.1 168.6 69.8 54.1 Level of Service F E F D D F E D Approach Delay (s) 78.3 48.1 151.0 63.5 Approach LOS E D F E Intersection Summary	Uniform Delay, d1	63.3	32.2		68.7	31.3		52.4	60.0			58.9	53.8
Delay (s) 100.7 75.1 182.0 37.8 53.1 168.6 69.8 54.1	Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Level of Service F E F D D F E D Approach Delay (s) 78.3 48.1 151.0 63.5 Approach LOS E D F E E Intersection Summary HCM 2000 Control Delay 78.7 HCM 2000 Level of Service E HCM 2000 Volume to Capacity ratio 1.02 Actuated Cycle Length (s) 141.9 Sum of lost time (s) 19.0 Intersection Capacity Utilization 96.9% ICU Level of Service F Analysis Period (min) 15	Incremental Delay, d2		42.9		113.3			0.7	108.7			10.9	0.3
Approach Delay (s) 78.3 48.1 151.0 63.5 Approach LOS E D F E Intersection Summary HCM 2000 Control Delay 78.7 HCM 2000 Level of Service E HCM 2000 Volume to Capacity ratio 1.02	Delay (s)	100.7	75.1		182.0	37.8		53.1	168.6			69.8	54.1
Approach LOS E D F E Intersection Summary HCM 2000 Control Delay 78.7 HCM 2000 Level of Service E HCM 2000 Volume to Capacity ratio 1.02 Actuated Cycle Length (s) 141.9 Sum of lost time (s) 19.0 Intersection Capacity Utilization 96.9% ICU Level of Service F Analysis Period (min) 15	Level of Service	F			F			D					D
HCM 2000 Control Delay 78.7 HCM 2000 Level of Service E	Approach Delay (s)		78.3			48.1							
HCM 2000 Control Delay 78.7 HCM 2000 Level of Service E HCM 2000 Volume to Capacity ratio 1.02 Actuated Cycle Length (s) 141.9 Sum of lost time (s) 19.0 Intersection Capacity Utilization 96.9% ICU Level of Service F Analysis Period (min) 15	Approach LOS		Е			D			F			Е	
HCM 2000 Volume to Capacity ratio 1.02 Actuated Cycle Length (s) 141.9 Sum of lost time (s) 19.0 Intersection Capacity Utilization 96.9% ICU Level of Service F Analysis Period (min) 15	Intersection Summary												
Actuated Cycle Length (s) 141.9 Sum of lost time (s) 19.0 Intersection Capacity Utilization 96.9% ICU Level of Service F Analysis Period (min) 15	HCM 2000 Control Delay			78.7	Н	CM 2000	Level of S	Service		Е			
Intersection Capacity Utilization 96.9% ICU Level of Service F Analysis Period (min) 15	HCM 2000 Volume to Capa	acity ratio		1.02									
Analysis Period (min) 15	Actuated Cycle Length (s)			141.9	9 Sum of lost time (s)					19.0			
Analysis Period (min) 15	Intersection Capacity Utiliza	ation		96.9%	IC	U Level	of Service			F			
Critical Lane Group	Analysis Period (min)			15									
	c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
ane Configurations	7	4	74	Jal.	7.		jki	10			4	
Volume (vph)	9	713	382	64	420	3	282	18	106	2	9	4
deal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
ane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
-rt	1.00	1.00	0.85	1.00	1.00		1.00	0.87			0.97	
It Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1863	1583	1770	1861		1770	1625			1789	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1863	1583	1770	1861		1770	1625			1789	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	775	415	70	457	3	307	20	115	2	10	4
RTOR Reduction (vph)	0	0	132	0	0	0	0	91	0	0	4	0
ane Group Flow (vph)	10	775	283	70	460	0	307	44	0	0	12	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		. 8	8		4	4	
Permitted Phases			6									
Actuated Green, G (s)	0.7	48.7	48.7	5.0	53.0		19.5	19.5			2.5	
Effective Green, g (s)	0.7	48.7	48.7	5.0	53.0		19.5	19.5			2.5	
Actuated g/C Ratio	0.01	0.52	0.52	0.05	0.56		0.21	0.21			0.03	
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
/ehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
ane Grp Cap (vph)	13	965	820	94	1049		367	337			47	
//s Ratio Prot	0.01	c0.42		c0.04	0.25		c0.17	0.03			c0.01	
//s Ratio Perm			0.18									
//c Ratio	0.77	0.80	0.35	0.74	0.44		0.84	0.13			0.26	
Jniform Delay, d1	46.6	18.7	13.3	43.9	11.9		35.7	30.3			44.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
ncremental Delay, d2	124.9	4.9	0.3	25.7	0.3		14.9	0.1			2.1	
Delay (s)	171.5	23.6	13.5	69.6	12.2		50.6	30.5			47.0	
_evel of Service	F	С	В	Е	В		D	С			D	
Approach Delay (s)		21.4			19.8			44.5			47.0	
Approach LOS		С			В			D			D	
ntersection Summary												
HCM 2000 Control Delay			25.8	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capaci	ity ratio		0.79									
Actuated Cycle Length (s)			94.0	S	um of los	t time (s)			18.3			
ntersection Capacity Utilizati	on		75.3%	IC	U Level	of Service			D			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			41	19	P ^r
Volume (veh/h)	810	27	4	453	21	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	880	29	4	492	23	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			910		1396	895
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			910		1396	895
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		85	99
cM capacity (veh/h)			749		155	339
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	910	497	23	4		
Volume Left	910	491	23	0		
Volume Right	29	0	0	4		
cSH	1700	749	155	339		
Volume to Capacity	0.54	0.01	0.15	0.01		
Queue Length 95th (ft)	0.54	0.01	13	1		
Control Delay (s)	0.0	0.2	32.3	15.7		
Lane LOS	0.0	Α.2	02.0 D	C		
Approach Delay (s)	0.0	0.2	29.6			
Approach LOS	0.0	0.2	23.0 D			
••						
Intersection Summary			0.5			
Average Delay			0.6			
Intersection Capacity Utiliz	ation		54.3%	IC	U Level o	of Service
Analysis Period (min)			15			

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	10		44	
Volume (veh/h)	31	783	438	12	8	19
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	851	476	13	9	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	489				1401	483
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	489				1401	483
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				94	96
cM capacity (veh/h)	1074				150	584
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	885	489	29			
Volume Left	34	409	9			
Volume Right	0	13	21			
cSH	1074	1700	314			
Volume to Capacity	0.03	0.29	0.09			
Queue Length 95th (ft)	0.03	0.29	8			
Control Delay (s)	0.8	0.0	17.6			
Lane LOS	0.6 A	0.0	17.6 C			
Approach Delay (s)	0.8	0.0	17.6			
Approach LOS	0.0	0.0	17.0 C			
**			U			
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilizat	tion		76.3%	IC	CU Level of	of Service
Analysis Period (min)			15			

	•	-	•	•	-	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	To		874		
Volume (veh/h)	12	807	449	5	10	14	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	13	877	488	5	11	15	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	493				1394	491	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	493				1394	491	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.3	
p0 queue free %	99				93	97	
cM capacity (veh/h)	1070				154	578	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	890	493	26				
Volume Left	13	0	11				
Volume Right	0	5	15				
cSH	1070	1700	269				
Volume to Capacity	0.01	0.29	0.10				
Queue Length 95th (ft)	1	0.29	8				
Control Delay (s)	0.3	0.0	19.8				
Lane LOS	0.5 A	0.0	13.0 C				
Approach Delay (s)	0.3	0.0	19.8				
Approach LOS	0.0	0.0	C				
Intersection Summary							
Average Delay			0.6				
Intersection Capacity Utiliza	ation		62.1%	IC	CU Level	of Service	В
Analysis Period (min)			15				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	37	To.		Jal.	7.			440			4	
Volume (veh/h)	45	730	18	39	416	7	8	1	23	7	0	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	793	20	42	452	8	9	1	25	8	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	460			813			1453	1446	803	1458	1452	456
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	460			813			1453	1446	803	1458	1452	456
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			95			91	99	93	92	100	97
cM capacity (veh/h)	1101			814			98	119	383	93	118	604
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	49	813	42	460	35	23						
Volume Left	49	0	42	0	9	8						
Volume Right	0	20	0	8	25	15						
cSH	1101	1700	814	1700	213	213						
Volume to Capacity	0.04	0.48	0.05	0.27	0.16	0.11						
Queue Length 95th (ft)	3	0	4	0	14	9						
Control Delay (s)	8.4	0.0	9.7	0.0	25.2	24.0						
Lane LOS	Α		Α		D	С						
Approach Delay (s)	0.5		0.8		25.2	24.0						
Approach LOS					D	С						
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utiliza	ation		49.5%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	1>		11.52	4	814	NO.		
Volume (vph)	680	114	29	402	67	17		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0			4.0	4.0	.000		
Lane Util. Factor	1.00			1.00	1.00			
Frt	0.98			1.00	0.97			
Flt Protected	1.00			1.00	0.96			
Satd. Flow (prot)	1827			1856	1743			
Flt Permitted	1.00			0.93	0.96			
Satd. Flow (perm)	1827			1731	1743			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	739	124	32	437	73	18		
RTOR Reduction (vph)	10	0	0	0	15	0		
Lane Group Flow (vph)	853	0	0	469	76	0		
Turn Type	NA		Perm	NA	NA			
Protected Phases	4		1 Cilli	8	2			
Permitted Phases	7		8	U				
Actuated Green, G (s)	24.7		· ·	24.7	7.7			
Effective Green, g (s)	24.7			24.7	7.7			
Actuated g/C Ratio	0.61			0.61	0.19			
Clearance Time (s)	4.0			4.0	4.0			
Vehicle Extension (s)	3.0			3.0	3.0			
Lane Grp Cap (vph)	1117			1058	332			
v/s Ratio Prot	c0.47			1000	c0.04			
v/s Ratio Perm	60.77			0.27	CO.O-T			
v/c Ratio	0.76			0.44	0.23			
Uniform Delay, d1	5.7			4.2	13.8			
Progression Factor	1.00			1.00	1.00			
Incremental Delay, d2	3.2			0.3	0.4			
Delay (s)	8.9			4.5	14.2			
Level of Service	Α			Α	В			
Approach Delay (s)	8.9			4.5	14.2			
Approach LOS	A			Α	В			
••								
Intersection Summary			7.0	1.1.	CM 2000	Lovel of Comit-	^	
HCM 2000 Control Delay	!		7.8 0.64	H	CIVI 2000	Level of Service	Α	
HCM 2000 Volume to Capa	acity ratio		0.64 40.4		um of load	time (a)	8.0	
Actuated Cycle Length (s)	otion		56.4%		um of lost	time (s) of Service	8.0 B	
Intersection Capacity Utiliz	auon			IC	U Level (o service	В	
Analysis Period (min) c Critical Lane Group			15					
c Unitical Lane Group								

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Lane Configurations		۶	→	•	•	←	•	1	†	1	/		1
Volume (vph)	Movement		EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl)		7							4			44	
Total Lost time (s)	Volume (vph)	2	584	121	117	318	8		7	210	18	7	13
Lane Util. Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Ideal Flow (vphpl)	1900		1900	1900		1900	1900			1900	1900	1900
Frit 1.00 0.97 1.00 1.00 1.00 0.85 0.95 Fil Protected 0.95 1.00 0.95 1.00 0.96 1.00 0.98 Fil Protected 0.95 1.00 0.95 1.00 0.96 1.00 0.98 Satd. Flow (prot) 1770 1815 1770 1856 1782 1583 1738 Fil Permitted 0.95 1.00 0.95 1.00 0.96 1.00 0.98 Satd. Flow (perm) 1770 1815 1770 1856 1782 1583 1738 Fil Permitted 0.95 1.00 0.95 1.00 0.96 1.00 0.98 Satd. Flow (perm) 1770 1815 1770 1856 1782 1583 1738 Fil Permitted 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92						4.0							
Fit Protected 0.95	Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00			
Satd. Flow (prot) 1770 1815 1770 1856 1782 1583 1738 Fil Permitted 0.95 1.00 0.95 1.00 0.96 1.00 0.98 Satd. Flow (perm) 1770 1815 1770 1856 1782 1583 1738 Peak-hour factor, PHF 0.92 0.02	Frt	1.00	0.97		1.00	1.00			1.00	0.85		0.95	
Fit Permitted 0.95 1.00 0.95 1.00 0.95 1.00 0.96 1.00 0.98 Satd. Flow (perm) 1770 1815 1770 1856 1782 1583 1738 Total Peak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Flt Protected					1.00							
Satd. Flow (perm) 1770 1815 1770 1856 1782 1583 1738 Peak-hour factor, PHF 0.92 0.93 0.92 0.92 0.93 0.92 0.92 0.93 0.92 0.92 0.03 0.03 0.02 0.02 0.03	Satd. Flow (prot)		1815		1770	1856				1583		1738	
Peak-hour factor, PHF	Flt Permitted	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Adj. Flow (vph) 2 635 132 127 346 9 77 8 228 20 8 1 RTOR Reduction (vph) 0 7 0 0 1 0 0 202 0 13 Lane Group Flow (vph) 2 760 0 127 354 0 0 85 26 0 29 Turn Type Prot NA Prot NA Split NA Perm Split NA Protected Phases 7 4 3 8 2 2 6 6 6 Permitted Phases 7 4 3 8 2 2 6 6 6 Permitted Phases 7 4 3 8 2 2 6 6 6 Permitted Phases 7 4 3 8 7 4 3 8 7 4 3 8 7 4	Satd. Flow (perm)	1770	1815		1770	1856			1782	1583		1738	
RTOR Reduction (vph) 0 7 0 0 1 0 0 202 0 13 Lane Group Flow (vph) 2 760 0 127 354 0 0 85 26 0 29 Turn Type Prot NA Prot NA Split NA Perm Split NA Protected Phases 7 4 3 8 2 2 6 6 Permitted Phases 7 4 3 8 2 2 6 6 Permitted Phases 7 4 3 8 2 2 6 6 Permitted Phases 7 4 5 8.7 8.7 4.3 Actuated Green, G (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 Actuated g/C Ratio 0.01 0.52 0.09 0.60 0.12 0.12 0.06 Clearnce Time (s) 4.0 <td< td=""><td>Peak-hour factor, PHF</td><td>0.92</td><td>0.92</td><td>0.92</td><td>0.92</td><td>0.92</td><td>0.92</td><td>0.92</td><td>0.92</td><td>0.92</td><td>0.92</td><td>0.92</td><td>0.92</td></td<>	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph)	Adj. Flow (vph)	2	635	132	127	346	9	77	8	228	20	8	14
Turn Type	RTOR Reduction (vph)	0	7	0	0	1	0	0	0	202	0	13	0
Protected Phases	Lane Group Flow (vph)	2	760	0	127	354	0	0	85	26	0	29	0
Protected Phases 7 4 3 8 2 2 6 6 6 Permitted Phases 2 2 Actuated Green, G (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 Effective Green, g (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 Actuated g/C Ratio 0.01 0.52 0.09 0.60 0.12 0.12 0.06 Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 Lane Grp Cap (vph) 16 940 167 1120 206 183 99 v/s Ratio Prot 0.00 c0.42 0.07 0.19 c0.05 0.02 v/s Ratio Perm 0.01 0.81 0.76 0.32 0.41 0.14 0.29 Uniform Delay, d1 36.8 15.0 33.1 7.3 30.7 29.8 33.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Actuated Green, G (s)		7	4		3	8			2			6	
Effective Green, g (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 Actuated g/C Ratio 0.01 0.52 0.09 0.60 0.12 0.12 0.06 Clearance Time (s) 4.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 1.0 1.0 1.0	Permitted Phases									2			
Actuated g/C Ratio 0.01 0.52 0.09 0.60 0.12 0.12 0.06 Clearance Time (s) 4.0 3.0 3.8	Actuated Green, G (s)	0.7	38.8		7.1	45.2			8.7	8.7		4.3	
Clearance Time (s) 4.0 2.0 2.0 2.0 1.0 1.0 2.0 2.0 2.0 2.0 2.0 2.0 3.3 3.0 3.0 3.0 3.3 8.8 8.0 9.0 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	Effective Green, q (s)	0.7	38.8		7.1	45.2			8.7	8.7		4.3	
Clearance Time (s) 4.0 2.0 2.0 2.0 1.0 1.0 2.0 2.0 2.0 2.0 2.0 2.0 3.3 3.0 3.0 3.0 3.3 8.8 8.0 9.0 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	Actuated g/C Ratio	0.01	0.52		0.09	0.60			0.12	0.12		0.06	
Lane Grp Cap (vph) 16 940 167 1120 206 183 99 v/s Ratio Prot 0.00 c0.42 c0.07 0.19 c0.05 0.02 v/s Ratio Prot 0.00 c0.42 c0.07 0.19 c0.05 c0.02 v/s Ratio Prot 0.00 c0.42 c0.07 0.19 c0.05 c0.02 v/s Ratio Prot 0.00 c0.02 v/s Ratio Prot 0.00 c0.02 V/s Ratio Prot 0.00 c0.05 c0.02 V/s Ratio Prot 0.00 c0.00 c0.00 c0.00 v/s Ratio Prot 0.00 c0.00 c0.00 c0.00 U/s Ratio Prot 0.00 c0.00 c0.00 c0.00 c0.00 U/s Ratio Prot 0.00 c0.00 c0.00 c0.00 c0.00 c0.00 c0.00 U/s Ratio Prot 0.00 c0.00 c0.		4.0	4.0		4.0	4.0			4.0	4.0		4.0	
v/s Ratio Prot 0.00 c0.42 c0.07 0.19 c0.05 c0.02 v/s Ratio Perm 0.02 0.02 0.02 0.02 v/c Ratio 0.12 0.81 0.76 0.32 0.41 0.14 0.29 Uniform Delay, d1 36.8 15.0 33.1 7.3 30.7 29.8 33.8 Progression Factor 1.00	Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
v/s Ratio Prot 0.00 c0.42 c0.07 0.19 c0.05 c0.02 v/s Ratio Perm 0.02	Lane Grp Cap (vph)	16	940		167	1120			206	183		99	
v/s Ratio Perm 0.02 v/c Ratio 0.12 0.81 0.76 0.32 0.41 0.14 0.29 Uniform Delay, d1 36.8 15.0 33.1 7.3 30.7 29.8 33.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Incremental Delay, d2 3.5 5.2 18.3 0.2 1.3 0.4 1.6 Delay (s) 40.3 20.2 51.3 7.4 32.1 30.1 35.5 Level of Service D C D A C C D Approach Delay (s) 20.2 19.0 30.7 35.5 Approach LOS C B C D Intersection Summary HCM 2000 Control Delay 22.3 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.71 Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 64.4% ICU Level of Service C Analysis Period (min) 15		0.00	c0.42		c0.07	0.19			c0.05			c0.02	
Uniform Delay, d1 36.8 15.0 33.1 7.3 30.7 29.8 33.8 Progression Factor 1.00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.02</td><td></td><td></td><td></td></t<>										0.02			
Progression Factor 1.00 <td>v/c Ratio</td> <td>0.12</td> <td>0.81</td> <td></td> <td>0.76</td> <td>0.32</td> <td></td> <td></td> <td>0.41</td> <td>0.14</td> <td></td> <td>0.29</td> <td></td>	v/c Ratio	0.12	0.81		0.76	0.32			0.41	0.14		0.29	
Progression Factor 1.00 <td>Uniform Delay, d1</td> <td>36.8</td> <td>15.0</td> <td></td> <td>33.1</td> <td>7.3</td> <td></td> <td></td> <td>30.7</td> <td>29.8</td> <td></td> <td>33.8</td> <td></td>	Uniform Delay, d1	36.8	15.0		33.1	7.3			30.7	29.8		33.8	
Incremental Delay, d2 3.5 5.2 18.3 0.2 1.3 0.4 1.6		1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Level of Service D C D A C C D Approach Delay (s) 20.2 19.0 30.7 35.5 Approach LOS C B C D Intersection Summary HCM 2000 Control Delay 22.3 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.71 Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 64.4% ICU Level of Service C C Analysis Period (min) 15		3.5	5.2		18.3	0.2			1.3	0.4		1.6	
Approach Delay (s) 20.2 19.0 30.7 35.5 Approach LOS C B C D Intersection Summary HCM 2000 Control Delay 22.3 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.71 Actuated Cycle Length (s) 16.0 Intersection Capacity Utilization 64.4% ICU Level of Service C Analysis Period (min) 15	Delay (s)	40.3	20.2		51.3	7.4			32.1	30.1		35.5	
Approach LOS C B C D Intersection Summary HCM 2000 Control Delay 22.3 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.71 Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 64.4% ICU Level of Service C Analysis Period (min) 15		D	С		D	Α			С	С		D	
Intersection Summary HCM 2000 Control Delay 22.3 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.71 O.71 O.71 O.72 O.72 O.73 O.74	Approach Delay (s)		20.2			19.0			30.7			35.5	
HCM 2000 Control Delay 22.3 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.71 Capacity Capacity (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 64.4% ICU Level of Service C Analysis Period (min) 15 15	Approach LOS		С			В			С			D	
HCM 2000 Control Delay 22.3 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.71 Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 64.4% ICU Level of Service C Analysis Period (min) 15	Intersection Summary												
HCM 2000 Volume to Capacity ratio 0.71 Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 64.4% ICU Level of Service C Analysis Period (min) 15				22.3	Н	CM 2000	Level of S	Service		С			
Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 64.4% ICU Level of Service C Analysis Period (min) 15		city ratio					_3.0.01			,			
Intersection Capacity Utilization 64.4% ICU Level of Service C Analysis Period (min) 15		,			S	um of los	t time (s)			16.0			
Analysis Period (min) 15		tion											
C OHUGA LANG CHUUD	c Critical Lane Group			10									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J,	T.		Jal.	To-		Jal.	10			4	
Volume (vph)	27	644	158	46	329	8	101	4	73	7	4	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.86			0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)	1770	1808		1770	1856		1770	1597			1701	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	
Satd. Flow (perm)	1770	1808		1770	1856		1770	1597			1701	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	700	172	50	358	9	110	4	79	8	4	14
RTOR Reduction (vph)	0	7	0	0	1	0	0	70	0	0	14	0
Lane Group Flow (vph)	29	865	0	50	366	0	110	13	0	0	12	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases		•					_	_		·		
Actuated Green, G (s)	1.6	40.9		2.1	41.4		7.8	7.8			2.4	
Effective Green, q (s)	1.6	40.9		2.1	41.4		7.8	7.8			2.4	
Actuated g/C Ratio	0.02	0.59		0.03	0.60		0.11	0.11			0.03	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	40	1068		53	1110		199	180			58	
v/s Ratio Prot	0.02	c0.48		c0.03	0.20		c0.06	0.01			c0.01	
v/s Ratio Perm	0.02	00.10		00.00	0.20		00.00	0.01			00.01	
v/c Ratio	0.72	0.81		0.94	0.33		0.55	0.07			0.22	
Uniform Delay, d1	33.6	11.1		33.5	7.0		29.0	27.5			32.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	48.4	4.6		102.1	0.2		3.3	0.2			1.9	
Delay (s)	82.0	15.7		135.6	7.1		32.3	27.6			34.3	
Level of Service	F	В		F	A		C	C			C	
Approach Delay (s)		17.9			22.5		Ŭ	30.3			34.3	
Approach LOS		В			C			C			C	
••												
Intersection Summary			21.0	- 11	CM 2000	l accel af	Camilaa		С			
HCM 2000 Control Delay	. tr e .			п	CIVI 2000	Level of	Service		C			
HCM 2000 Volume to Capa	city ratio		0.75	_		(Co /-)			40.0			
Actuated Cycle Length (s)	e		69.2		um of los				16.0			
Intersection Capacity Utiliza	tion		62.4%	IC	CU Level	of Service)		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J.	To		Jal.	To-		jąć	10		1	1	
Volume (vph)	87	304	283	86	143	16	235	121	141	28	84	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.93		1.00	0.99		1.00	0.92		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1728		1770	1835		1770	1713		1770	1817	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1728		1770	1835		1770	1713		1770	1817	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	330	308	93	155	17	255	132	153	30	91	18
RTOR Reduction (vph)	0	40	0	0	4	0	0	55	0	0	10	0
Lane Group Flow (vph)	95	598	0	93	168	0	255	230	0	30	99	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	6.5	28.6		5.1	27.2		12.8	20.1		1.8	9.1	
Effective Green, g (s)	6.5	28.6		5.1	27.2		12.8	20.1		1.8	9.1	
Actuated g/C Ratio	0.09	0.40		0.07	0.38		0.18	0.28		0.03	0.13	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	160	690		126	697		316	480		44	230	
v/s Ratio Prot	c0.05	c0.35		0.05	0.09		c0.14	c0.13		0.02	0.05	
v/s Ratio Perm												
v/c Ratio	0.59	0.87		0.74	0.24		0.81	0.48		0.68	0.43	
Uniform Delay, d1	31.3	19.8		32.6	15.2		28.2	21.4		34.6	28.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.8	11.1		20.0	0.2		14.0	0.8		35.7	1.3	
Delay (s)	37.1	30.9		52.6	15.3		42.2	22.2		70.3	30.2	
Level of Service	D	С		D	В		D	С		Е	С	
Approach Delay (s)		31.7			28.4			31.6			38.8	
Approach LOS		С			С			С			D	
Intersection Summary												
HCM 2000 Control Delay			31.7	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.80									
Actuated Cycle Length (s)			71.6		um of los				16.0			
Intersection Capacity Utiliza	tion		69.9%	IC	U Level	of Service	•		С			
Analysis Period (min)			15									
c Critical Lane Group												

12: El Dorado Hills												
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	71		4		ją.	10		7	13	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	41	497	26	36	40	535	371	19	9	202	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	540	28	39	43	582	403	21	10	220	2
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	45	540	111	582	424	10	222					
Volume Left (vph)	0	0	28	582	0	10	0					
Volume Right (vph)	0	540	43	0	21	0	2					
Hadj (s)	0.03	-0.57	-0.15	0.53	0.00	0.53	0.03					
Departure Headway (s)	6.6	3.2	6.2	5.8	5.3	6.8	6.3					
Degree Utilization, x	0.08	0.48	0.19	0.94	0.63	0.02	0.39					
Capacity (veh/h)	519	1116	561	607	671	510	557					
Control Delay (s)	10.1	9.1	10.6	46.6	15.5	8.7	12.0					
Approach Delay (s)	9.2		10.6	33.5		11.9						
Approach LOS	Α		В	D		В						
Intersection Summary												
Delay			22.2									
Level of Service			С									
Intersection Capacity Utiliza	tion		62.8%	IC	U Level	of Service			В			
Analysis Period (min)			15									

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	75	PF.	1 13		17.75	十 十		
Volume (vph)	141	125	939	184	162	585		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		
Lane Util. Factor	1.00	1.00	0.95		0.97	0.95		
Frt	1.00	0.85	0.98		1.00	1.00		
Flt Protected	0.95	1.00	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1583	3452		3433	3539		
Flt Permitted	0.95	1.00	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1583	3452		3433	3539		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	153	136	1021	200	176	636		
RTOR Reduction (vph)	0	115	23	0	0	0		
Lane Group Flow (vph)	153	21	1198	0	176	636		
Turn Type	NA	Perm	NA		Prot	NA		
Protected Phases	8		2		1	6		
Permitted Phases		8						
Actuated Green, G (s)	7.9	7.9	27.1		3.7	34.8		
Effective Green, q (s)	7.9	7.9	27.1		3.7	34.8		
Actuated g/C Ratio	0.16	0.16	0.53		0.07	0.69		
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	275	246	1845		250	2429		
v/s Ratio Prot	c0.09		c0.35		c0.05	0.18		
v/s Ratio Perm		0.01						
v/c Ratio	0.56	0.09	0.65		0.70	0.26		
Uniform Delay, d1	19.8	18.3	8.4		23.0	3.0		
Progression Factor	1.00	1.00	1.00		1.00	1.00		
Incremental Delay, d2	2.4	0.2	0.8		8.7	0.1		
Delay (s)	22.2	18.5	9.2		31.6	3.1		
Level of Service	С	В	Α		С	Α		
Approach Delay (s)	20.4		9.2			9.3		
Approach LOS	С		Α			Α		
Intersection Summary								
HCM 2000 Control Delay			10.6	H	ICM 2000	Level of Service	В	
HCM 2000 Volume to Capac	itv ratio		0.64			2. 2. 22. 1100		
Actuated Cycle Length (s)	,		50.7	S	Sum of lost	time (s)	12.0	
Intersection Capacity Utilizati	ion		54.3%		CU Level	(-)	A	
Analysis Period (min)								
Analysis Period (IIIIII)			15					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	Th.		Jal.	4		jąt.	44	j ^e r	19	41>	
Volume (vph)	25	18	46	305	33	18	120	1305	591	24	1086	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.89		1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1663		1681	1682		1770	3539	1583	1770	3516	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1663		1681	1682		1770	3539	1583	1770	3516	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	20	50	332	36	20	130	1418	642	26	1180	53
RTOR Reduction (vph)	0	48	0	0	3	0	0	0	0	0	2	0
Lane Group Flow (vph)	27	22	0	196	189	0	130	1418	642	26	1231	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		. 8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	4.4	4.4		16.8	16.8		17.1	81.3	120.0	3.3	67.5	
Effective Green, g (s)	4.4	4.4		16.8	16.8		17.1	81.3	120.0	3.3	67.5	
Actuated g/C Ratio	0.04	0.04		0.14	0.14		0.14	0.68	1.00	0.03	0.56	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	64	60		235	235		252	2397	1583	48	1977	
v/s Ratio Prot	0.02	0.01		c0.12	0.11		0.07	c0.40		0.01	c0.35	
v/s Ratio Perm									c0.41			
v/c Ratio	0.42	0.36		0.83	0.80		0.52	0.59	0.41	0.54	0.62	
Uniform Delay, d1	56.6	56.4		50.2	50.0		47.6	10.4	0.0	57.6	17.7	
Progression Factor	1.00	1.00		1.00	1.00		0.71	0.18	1.00	1.00	1.00	
Incremental Delay, d2	1.6	1.4		20.9	16.7		0.6	0.9	0.6	6.5	1.5	
Delay (s)	58.2	57.8		71.1	66.7		34.6	2.8	0.6	64.1	19.2	
Level of Service	Е	E		Е	Е		С	Α	Α	Е	В	
Approach Delay (s)		57.9			69.0			4.0			20.1	
Approach LOS		Е			Е			Α			С	
Intersection Summary												
HCM 2000 Control Delay			16.9	Н	CM 2000	Level of S	ervice		В			
HCM 2000 Volume to Capa	acity ratio		0.66									
Actuated Cycle Length (s)	,		120.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utiliza	ation		66.9%			of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Configurations		•	→	\rightarrow	•	←	•	•	†	/	-	ļ	4
Volume (vph) 86 27 210 43 22 304 295 1627 78 158 1207 62 detail Flow (vphpl) 1900 1900 1900 1900 1900 1900 1900 190	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl)	Lane Configurations	3	4	74	54,	T.		14	ተተገ»		1	1	
Total Lost time (s)	Volume (vph)	86	27	210	43	22	304	295	1627	78	158	1207	62
Lane Util. Factor 0.95 0.95 1.00 1.00 1.00 1.00 0.91 1.00 0.95 Fit 1.00 1.00 0.85 1.00 0.86 1.00 0.99 1.00 0.95 Fit 1.00 1.00 0.85 1.00 0.86 1.00 0.99 1.00 0.99 Fit Protected 0.95 0.97 1.00 0.95 1.00 0.95 1.00 0.95 Satd. Flow (prot) 1681 1724 1583 1770 1602 1770 5050 1770 3513 Fit Permitted 0.95 0.97 1.00 0.95 1.00 0.95 1.00 0.95 1.00 Satd. Flow (perm) 1681 1724 1583 1770 1602 1770 5050 1770 3513 Fit Pemitted 0.95 0.97 1.00 0.95 1.00 0.95 1.00 0.95 1.00 Satd. Flow (perm) 1681 1724 1583 1770 1602 1770 5050 1770 3513 Peak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Fit Protected	Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Fit Protected 0.95 0.97 1.00 0.95 1.	Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.91		1.00	0.95	
Satd. Flow (prot)	Frt	1.00	1.00	0.85	1.00	0.86		1.00	0.99		1.00	0.99	
Fit Permittled 0.95 0.97 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00	Flt Protected	0.95	0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm) 1681 1724 1583 1770 1602 1770 5050 1770 3513	Satd. Flow (prot)	1681	1724	1583	1770	1602		1770	5050		1770	3513	
Peak-hour factor, PHF	Flt Permitted	0.95	0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Adj. Flow (vph) 93 29 228 47 24 330 321 1768 85 172 1312 67 RTOR Reduction (vph) 0 0 0 214 0 279 0 0 0 3 0 0 2 0 Lane Group Flow (vph) 60 62 14 47 75 0 321 1850 0 172 1377 0 Turn Type Split NA Prot Split NA Prot NA Prot NA Protected Phases 7 7 7 7 8 8 8 1 1 6 5 2 Permitted Phases Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 72.8 12.0 62.8 Effective Green, g (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated gC Ratio 0.06 0.06 0.06 0.08 0.08 0.18 0.62 0.110 0.54 Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 5.7 4.0 5.7 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 4.2 Lane Grp Cap (vph) 106 109 100 146 132 324 3135 177 1888 Ves Ratio Prot 0.04 c0.04 0.01 0.03 c0.05 c0.18 0.37 0.10 c0.39 Ves Ratio Perm Ve Ratio 0.57 0.57 0.14 0.32 0.57 0.99 0.59 0.97 0.73 Uniform Delay, d1 54.6 54.6 53.1 51.9 53.0 48.9 13.6 53.8 21.1 Progression Factor 1.00 1.00 1.00 1.00 1.00 0.90 0.28 0.82 Incremental Delay, d2 4.1 4.0 0.2 0.5 3.3 38.4 0.6 52.5 2.1 Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E E D D E F A F B A F B Approach Delay (s) 55.2 55.9 15.9 22.9 Approach Delay (s) 55.2 55.9 15.9 22.9 Approach LOS E E B D D E F A F B Approach Delay (s) 55.2 55.9 15.9 55.9 15.9 22.9 Approach LOS E E B D D E F A F B Approach Delay (s) 55.2 55.9 15.9 55.9 15.9 22.9 Approach LOS E E B D D S E F A F B Approach Delay (s) 55.2 55.9 15.9 55.9 15.9 22.9 Approach LOS E E B D D S E F A F B Approach Delay (s) 55.2 55.9 15.9 55.9 15.9 55.9 15.9 55.9 55.9	Satd. Flow (perm)	1681	1724	1583	1770	1602		1770	5050		1770	3513	
RTOR Reduction (vph) 0 0 214 0 279 0 0 3 0 0 2 0 2 0 2 0 2 0 2 14 4 7 75 0 321 1850 0 172 1377 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 60 62 14 47 75 0 321 1850 0 172 1377 0	Adj. Flow (vph)	93	29	228	47	24	330	321	1768	85	172	1312	67
Turn Type	RTOR Reduction (vph)	0	0	214	0	279	0	0	3	0	0	2	0
Protected Phases 7 7 7 7 8 8 8 1 6 5 2 Permitted Phases Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 72.8 12.0 62.8 Effective Green, g (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated g/C Ratio 0.06 0.06 0.06 0.08 0.08 0.08 0.18 0.62 0.10 0.54 Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 5.7 4.0 5.7 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 1.2 4.2 0.2 4.2 Lane Grp Cap (vph) 106 109 100 146 132 324 3135 177 1888 W/s Ratio Prot 0.04 c0.04 0.01 0.03 c0.05 c0.18 0.37 0.10 c0.39 W/s Ratio Perm W/c Ratio 0.57 0.57 0.14 0.32 0.57 0.99 0.59 0.97 0.73 Uniform Delay, d1 54.6 54.6 53.1 51.9 53.0 48.9 13.6 53.8 21.1 Progression Factor 1.00 1.00 1.00 1.00 0.90 0.28 0.82 0.82 0.55 Incremental Delay, d2 4.1 4.0 0.2 0.5 3.3 38.4 0.6 52.5 2.1 Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E E D D E F A F B A F B Approach Delay (s) 55.2 5.9 15.9 22.9 Approach LOS E E B D D E F A F B C Intersection Summary HCM 2000 Control Delay HCM 2000 Volume to Capacity ratio 0.76 Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Lane Group Flow (vph)	60	62	14	47	75	0	321	1850	0	172	1377	0
Permitted Phases Actuated Green, G (s) 7.6 7.6 7.6 7.6 9.9 9.9 9.9 22.0 72.8 12.0 62.8 Effective Green, g (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated Green, G (s) 7.6 7.6 7.6 7.6 9.9 9.9 9.9 2.0 2.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Turn Type	Split	NA	Prot	Split	NA		Prot	NA		Prot	NA	
Actuated Green, G (s) 7.6 7.6 7.6 9.9 9.9 22.0 72.8 12.0 62.8 Effective Green, g (s) 7.6 7.6 7.6 7.6 9.9 9.9 22.0 74.5 12.0 64.5 Actuated g/C Ratio 0.06 0.06 0.06 0.08 0.08 0.18 0.62 0.10 0.54 Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 5.7 4.0 5.7 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 4.2 0.2 4.2 Lane Grp Cap (vph) 106 109 100 146 132 324 3135 177 1888 v/s Ratio Prot 0.04 c0.04 0.01 0.03 c0.05 c0.18 0.37 0.10 c0.39 v/s Ratio Perm v/c Ratio 0.57 0.57 0.14 0.32 0.57 0.99 0.59 0.97 0.73 Uniform Delay, d1 54.6 54.6 53.1 51.9 53.0 48.9 13.6 53.8 21.1 Progression Factor 1.00 1.00 1.00 1.00 1.00 0.90 0.28 0.82 0.55 Incremental Delay, d2 4.1 4.0 0.2 0.5 3.3 38.4 0.6 52.5 2.1 Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E E E D D E F A F B A F B A Approach Delay (s) 55.2 55.9 15.9 22.9 Approach Delay (s) 55.2 55.9 15.9 22.9 Approach LOS E E E D S MC 2000 Level of Service C Intersection Summary HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C Intersection Summary HCM 2000 Control Delay 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Protected Phases	7	7	7	. 8	8		1	6		5	2	
Effective Green, g (s) 7.6 7.6 7.6 9.9 9.9 9.9 22.0 74.5 12.0 64.5 Actuated g/C Ratio 0.06 0.06 0.06 0.08 0.08 0.18 0.62 0.10 0.54 Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 5.7 4.0 5.7 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 4.2 0.2 4.2 Lane Grp Cap (vph) 106 109 100 146 132 324 3135 177 1888 v/s Ratio Prot 0.04 c.0.4 0.01 0.03 c.0.05 c.0.18 0.37 0.10 c.0.39 v/s Ratio Perm v/c Ratio 0 0.57 0.57 0.14 0.32 0.57 0.99 0.59 0.97 0.73 Uniform Delay, d1 54.6 54.6 53.1 51.9 53.0 48.9 13.6 53.8 21.1 Progression Factor 1.00 1.00 1.00 1.00 1.00 0.90 0.28 0.82 0.55 Incremental Delay, d2 4.1 4.0 0.2 0.5 3.3 38.4 0.6 52.5 2.1 Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E E D D E F A F B Approach Delay (s) 55.2 55.9 15.9 22.9 Approach LOS E E E D B C Intersection Summary HCM 2000 Control Delay HCM 2000 Control Delay HCM 2000 Volume to Capacity ratio 0.76 Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Interesection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Permitted Phases												
Actuated g/C Ratio 0.06 0.06 0.06 0.08 0.08 0.08 0.18 0.62 0.10 0.54 Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 5.7 Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 0.2 0.2 4.2 0.2 4.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1	Actuated Green, G (s)	7.6	7.6	7.6	9.9	9.9		22.0	72.8		12.0	62.8	
Clearance Time (s)	Effective Green, g (s)	7.6	7.6	7.6	9.9	9.9		22.0	74.5		12.0	64.5	
Vehicle Extension (s) 0.2 0.2 0.2 0.2 0.2 4.2 0.2 4.2 Lane Gry Cap (vph) 106 109 100 146 132 324 3135 177 1888 v/s Ratio Prot 0.04 c0.04 0.01 0.03 c0.05 c0.18 0.37 0.10 c0.39 v/s Ratio Perm v/c Ratio 0.57 0.57 0.14 0.32 0.57 0.99 0.59 0.97 0.73 Uniform Delay, d1 54.6 54.6 53.1 51.9 53.0 48.9 13.6 53.8 21.1 Progression Factor 1.00 1.00 1.00 1.00 0.90 0.28 0.82 0.55 Incremental Delay, d2 4.1 4.0 0.2 0.5 3.3 38.4 0.6 52.5 2.1 Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E	Actuated g/C Ratio	0.06	0.06	0.06	0.08	0.08		0.18	0.62		0.10	0.54	
Lane Grp Cap (vph) 106 109 100 146 132 324 3135 177 1888 \[\begin{array}{c c c c c c c c c c c c c c c c c c c	Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.7		4.0	5.7	
\(\text{Ws Ratio Prot } \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	4.2		0.2	4.2	
v/s Ratio Perm v/c Ratio 0.57 0.57 0.14 0.32 0.57 0.99 0.59 0.97 0.73 Uniform Delay, d1 54.6 54.6 53.1 51.9 53.0 48.9 13.6 53.8 21.1 Progression Factor 1.00 1.00 1.00 0.90 0.28 0.82 0.55 Incremental Delay, d2 4.1 4.0 0.2 0.5 3.3 38.4 0.6 52.5 2.1 Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E E D D E F A F B Approach Delay (s) 55.2 55.9 15.9 22.9 Approach LOS E E B C Intersection Summary HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.76 Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Ut	Lane Grp Cap (vph)	106	109	100	146	132		324	3135		177	1888	
v/c Ratio 0.57 0.57 0.14 0.32 0.57 0.99 0.59 0.97 0.73 Uniform Delay, d1 54.6 54.6 54.6 53.1 51.9 53.0 48.9 13.6 53.8 21.1 Progression Factor 1.00 1.00 1.00 1.00 0.90 0.28 0.82 0.55 Incremental Delay, d2 4.1 4.0 0.2 0.5 3.3 38.4 0.6 52.5 2.1 Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E E D D E F A F B Approach LOS 55.2 55.9 15.9 22.9 Approach LOS E B C Intersection Summary HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.76 Actuated Cycle Length (s)	v/s Ratio Prot	0.04	c0.04	0.01	0.03	c0.05		c0.18	0.37		0.10	c0.39	
Uniform Delay, d1 54.6 54.6 53.1 51.9 53.0 48.9 13.6 53.8 21.1 Progression Factor 1.00 1.00 1.00 1.00 1.00 0.90 0.28 0.82 0.55 Incremental Delay, d2 4.1 4.0 0.2 0.5 3.3 38.4 0.6 52.5 2.1 Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E E E D D E F A F B Approach Delay (s) 55.2 55.9 15.9 22.9 Approach LOS E E E B B C Intersection Summary HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	v/s Ratio Perm												
Progression Factor 1.00 1.00 1.00 1.00 0.90 0.28 0.82 0.55 Incremental Delay, d2 4.1 4.0 0.2 0.5 3.3 38.4 0.6 52.5 2.1 Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E E D D E F A F B Approach Delay (s) 55.2 55.9 15.9 22.9 15.9 22.9 Approach LOS E E B C C Intersection Summary HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.76 C C Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E	v/c Ratio	0.57	0.57	0.14	0.32	0.57		0.99	0.59		0.97	0.73	
Incremental Delay, d2	Uniform Delay, d1	54.6	54.6	53.1	51.9	53.0		48.9	13.6		53.8	21.1	
Delay (s) 58.7 58.6 53.4 52.4 56.3 82.6 4.4 96.6 13.7 Level of Service E E D D E F A F B Approach LOS E E E B C Intersection Summary HCM 2000 Control Delay HCM 2000 Control Delay HCM 2000 Volume to Capacity ratio Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Progression Factor	1.00	1.00	1.00	1.00	1.00		0.90	0.28		0.82	0.55	
Level of Service E E D D E F A F B Approach Delay (s) 55.2 55.9 15.9 22.9 Approach LOS E E B C Intersection Summary HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.76 Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Incremental Delay, d2	4.1	4.0	0.2	0.5	3.3		38.4	0.6		52.5	2.1	
Approach Delay (s) 55.2 55.9 15.9 22.9 Approach LOS E E B C Intersection Summary HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.76 C C Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Delay (s)	58.7	58.6	53.4	52.4	56.3		82.6	4.4		96.6	13.7	
Approach LOS E E B C Intersection Summary HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.76 Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Level of Service	E	Е	D	D	E		F	Α		F	В	
HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C	Approach Delay (s)		55.2			55.9			15.9			22.9	
HCM 2000 Control Delay 25.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.76 C Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Approach LOS		Е			Е			В			С	
HCM 2000 Volume to Capacity ratio 0.76 Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Intersection Summary												
HCM 2000 Volume to Capacity ratio 0.76 Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	HCM 2000 Control Delay			25.0	Н	CM 2000	Level of	Service		С			
Actuated Cycle Length (s) 120.0 Sum of lost time (s) 16.0 Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15		city ratio		0.76									
Intersection Capacity Utilization 89.1% ICU Level of Service E Analysis Period (min) 15	Actuated Cycle Length (s)	•		120.0	S	um of los	t time (s)			16.0			
Analysis Period (min) 15		ation		89.1%	IC	CU Level	of Service	9		Е			
	Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	74	jąį,	4	74	30 10	441		1	444	7
Volume (vph)	212	70	302	212	155	91	987	1687	286	54	985	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	0.97	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1726	1583	1681	1754	1583	3433	4975		1770	5085	1583
Flt Permitted	0.95	0.98	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1681	1726	1583	1681	1754	1583	3433	4975		1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	230	76	328	230	168	99	1073	1834	311	59	1071	458
RTOR Reduction (vph)	0	0	0	0	0	84	0	16	0	0	0	0
Lane Group Flow (vph)	152	154	328	195	203	15	1073	2129	0	59	1071	458
Turn Type	Split	NA	Free	Split	NA	Perm	Prot	NA		Prot	NA	Free
Protected Phases	4	4		. 8	8		5	2		1	6	
Permitted Phases			Free			8						Free
Actuated Green, G (s)	14.4	14.4	120.0	18.5	18.5	18.5	43.3	66.9		4.2	27.8	120.0
Effective Green, g (s)	14.4	14.4	120.0	18.5	18.5	18.5	43.3	66.9		4.2	27.8	120.0
Actuated g/C Ratio	0.12	0.12	1.00	0.15	0.15	0.15	0.36	0.56		0.04	0.23	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		2.2	2.2	2.2	3.0	3.5		2.0	2.5	
Lane Grp Cap (vph)	201	207	1583	259	270	244	1238	2773		61	1178	1583
v/s Ratio Prot	c0.09	0.09		c0.12	0.12		c0.31	0.43		0.03	c0.21	
v/s Ratio Perm			0.21			0.01						0.29
v/c Ratio	0.76	0.74	0.21	0.75	0.75	0.06	0.87	0.77		0.97	0.91	0.29
Uniform Delay, d1	51.1	51.0	0.0	48.6	48.6	43.3	35.7	20.5		57.8	44.9	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.13	0.70		0.73	0.64	1.00
Incremental Delay, d2	14.9	13.5	0.3	10.7	10.3	0.1	4.1	1.3		85.4	9.0	0.3
Delay (s)	66.0	64.5	0.3	59.3	58.8	43.4	44.6	15.5		127.3	37.9	0.3
Level of Service	Е	Е	Α	Е	Е	D	D	В		F	D	Α
Approach Delay (s)		31.6			55.9			25.2			30.4	
Approach LOS		С			Е			С			С	
Intersection Summary												
HCM 2000 Control Delay			29.9	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.84									
Actuated Cycle Length (s)	,		120.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		78.2%			of Service)		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			34,34			74		ተተተ	j ^e r	7	1111	
Volume (vph)	0	0	1423	0	0	1031	0	1929	619	527	972	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1547	0	0	1121	0	2097	673	573	1057	0
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	84	0	0	0
Lane Group Flow (vph)	0	0	1522	0	0	1121	0	2097	589	573	1057	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			45.3			60.0		29.7	29.7	22.3	29.0	
Effective Green, g (s)			45.3			60.0		29.7	29.7	22.3	29.0	
Actuated g/C Ratio			0.75			1.00		0.49	0.49	0.37	0.48	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			2289			1611		2517	783	657	3097	
v/s Ratio Prot			0.25					c0.41		c0.32	0.16	
v/s Ratio Perm			0.29			c0.70			0.37			
v/c Ratio			0.66			0.70		0.83	0.75	0.87	0.34	
Uniform Delay, d1			3.6			0.0		13.0	12.2	17.5	9.6	
Progression Factor			1.00			1.00		1.00	1.00	0.84	0.30	
Incremental Delay, d2			0.7			2.5		3.4	6.6	8.8	0.2	
Delay (s)			4.4			2.5		16.4	18.8	23.5	3.1	
Level of Service			Α			Α		В	В	С	Α	
Approach Delay (s)		4.4			2.5			17.0			10.3	
Approach LOS		Α			Α			В			В	
Intersection Summary												
HCM 2000 Control Delay			10.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.87									
Actuated Cycle Length (s)			60.0	S	um of los	t time (s)			8.0			
Intersection Capacity Utilization			74.2%	IC	U Level	of Service)		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	A.	54,				34,46	44			44	ř
Volume (vph)	482	0	184	0	0	0	743	919	0	0	1033	848
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.91	0.95				0.97	0.95			0.95	1.00
Frt	1.00	0.99	0.85				1.00	1.00			1.00	0.85
Flt Protected	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1602	1504				3433	3539			3539	1583
Flt Permitted	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1602	1504				3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	524	0	200	0	0	0	808	999	0	0	1123	922
RTOR Reduction (vph)	0	46	149	0	0	0	0	0	0	0	0	243
Lane Group Flow (vph)	272	226	31	0	0	0	808	999	0	0	1123	679
Turn Type	Split	NA	Perm				Prot	NA			NA	Perm
Protected Phases	4	4					5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	17.0	17.0	17.0				24.0	75.0			47.0	47.0
Effective Green, g (s)	17.0	17.0	17.0				24.0	75.0			47.0	47.0
Actuated g/C Ratio	0.17	0.17	0.17				0.24	0.75			0.47	0.47
Clearance Time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	285	272	255				823	2654			1663	744
v/s Ratio Prot	c0.16	0.14					c0.24	0.28			0.32	
v/s Ratio Perm			0.02									c0.43
v/c Ratio	0.95	0.83	0.12				0.98	0.38			0.68	0.91
Uniform Delay, d1	41.1	40.1	35.2				37.8	4.4			20.6	24.6
Progression Factor	1.00	1.00	1.00				1.00	1.00			1.05	1.08
Incremental Delay, d2	40.7	19.1	0.2				26.8	0.4			0.8	7.9
Delay (s)	81.9	59.2	35.4				64.5	4.8			22.4	34.5
Level of Service	F	Е	D				Е	Α			С	С
Approach Delay (s)		61.8			0.0			31.5			27.9	
Approach LOS		Е			Α			С			С	
Intersection Summary												
HCM 2000 Control Delay			34.7	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.94									
Actuated Cycle Length (s)	•		100.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utiliz	ation		80.4%	IC	CU Level	of Service	•		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				jąć,	4	74	140	44			44	ľ
Volume (vph)	0	0	0	906	0	534	324	1077	0	0	977	343
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.91	0.95	1.00	0.95			0.95	1.00
Frt				1.00	0.97	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1585	1504	1770	3539			3539	1583
Flt Permitted				0.95	0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1585	1504	1770	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	985	0	580	352	1171	0	0	1062	373
RTOR Reduction (vph)	0	0	0	0	36	49	0	0	0	0	0	251
Lane Group Flow (vph)	0	0	0	542	500	438	352	1171	0	0	1062	122
Turn Type				Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases				. 8	8		5	2			6	
Permitted Phases						8						6
Actuated Green, G (s)				34.2	34.2	34.2	21.0	57.8			32.8	32.8
Effective Green, g (s)				34.2	34.2	34.2	21.0	57.8			32.8	32.8
Actuated g/C Ratio				0.34	0.34	0.34	0.21	0.58			0.33	0.33
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				574	542	514	371	2045			1160	519
v/s Ratio Prot				c0.32	0.32		c0.20	0.33			c0.30	
v/s Ratio Perm						0.29						0.08
v/c Ratio				0.94	0.92	0.85	0.95	0.57			0.92	0.24
Uniform Delay, d1				32.0	31.6	30.6	39.0	13.3			32.3	24.5
Progression Factor				1.00	1.00	1.00	0.88	1.37			0.99	2.29
Incremental Delay, d2				24.4	21.3	12.9	29.7	1.0			11.4	0.9
Delay (s)				56.3	52.9	43.5	64.0	19.2			43.3	56.9
Level of Service				Е	D	D	Е	В			D	Е
Approach Delay (s)		0.0			51.2			29.5			46.8	
Approach LOS		Α			D			С			D	
Intersection Summary												
HCM 2000 Control Delay			42.5	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacit	y ratio		0.93									
Actuated Cycle Length (s)			100.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utilization	n		85.5%	IC	U Level	of Service	9		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	'n	PF.	4 %		*5	件件	
Volume (vph)	32	205	1348	263	0	1288	
deal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00	0.95			0.95	
Frt	1.00	0.85	0.98			1.00	
Flt Protected	0.95	1.00	1.00			1.00	
Satd. Flow (prot)	1770	1583	3453			3539	
Flt Permitted	0.95	1.00	1.00			1.00	
Satd. Flow (perm)	1770	1583	3453			3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	35	223	1465	286	0.02	1400	
RTOR Reduction (vph)	0	98	9	0	0	0	
Lane Group Flow (vph)	35	125	1742	0	0	1400	
Turn Type	NA	Perm	NA		Prot	NA	
Protected Phases	8		2		1	6	
Permitted Phases		8				-	
Actuated Green, G (s)	12.9	12.9	79.1			79.1	
Effective Green, g (s)	12.9	12.9	79.1			79.1	
Actuated g/C Ratio	0.13	0.13	0.79			0.79	
Clearance Time (s)	4.0	4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	228	204	2731			2799	
v/s Ratio Prot	0.02		c0.50			0.40	
v/s Ratio Perm		c0.08					
v/c Ratio	0.15	0.61	0.64			0.50	
Uniform Delay, d1	38.7	41.2	4.4			3.6	
Progression Factor	1.00	1.00	0.91			1.00	
Incremental Delay, d2	0.3	5.4	0.8			0.6	
Delay (s)	39.0	46.6	4.9			4.3	
Level of Service	D	D	Α			Α	
Approach Delay (s)	45.6		4.9			4.3	
Approach LOS	D		Α			Α	
Intersection Summary							
HCM 2000 Control Delay			7.7	Н	CM 2000	Level of Service	Α
HCM 2000 Volume to Capa	city ratio		0.66				
Actuated Cycle Length (s)	_		100.0	S	um of lost	t time (s)	12.0
Intersection Capacity Utiliza	ation		65.0%	IC	CU Level	of Service	С
Analysis Period (min)			15				
c Critical Lane Group							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3,2	44		Jal.	47		140	44	il.	1	47>	
Volume (vph)	175	227	175	361	111	145	192	692	374	223	443	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.93		1.00	0.92		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3308		1770	3239		1770	3539	1583	1770	3432	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3308		1770	3239		1770	3539	1583	1770	3432	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	190	247	190	392	121	158	209	752	407	242	482	122
RTOR Reduction (vph)	0	157	0	0	124	0	0	0	294	0	21	0
Lane Group Flow (vph)	190	280	0	392	155	0	209	752	113	242	583	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	14.1	13.1		20.0	19.0		11.0	23.5	23.5	13.0	25.5	
Effective Green, g (s)	14.1	13.1		20.0	19.0		11.0	23.5	23.5	13.0	25.5	
Actuated g/C Ratio	0.16	0.15		0.23	0.22		0.12	0.27	0.27	0.15	0.29	
Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	282	491		401	697		220	942	421	260	992	
v/s Ratio Prot	0.11	c0.08		c0.22	0.05		0.12	c0.21		c0.14	0.17	
v/s Ratio Perm									0.07			
v/c Ratio	0.67	0.57		0.98	0.22		0.95	0.80	0.27	0.93	0.59	
Uniform Delay, d1	34.9	34.9		33.9	28.5		38.3	30.1	25.6	37.2	26.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.2	1.6		38.6	0.2		46.1	4.8	0.3	37.5	0.9	
Delay (s)	41.1	36.5		72.5	28.7		84.4	34.9	25.9	74.7	27.7	
Level of Service	D	D		Е	С		F	С	С	Е	С	
Approach Delay (s)		37.9			54.3			39.8			41.2	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			42.6	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capac	city ratio		0.82									
Actuated Cycle Length (s)			88.2	S	um of los	t time (s)			18.6			
Intersection Capacity Utilizat	tion		78.9%	IC	U Level	of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	ተ	54,	Jal.	14		jąć.	10		15	4	#
Volume (vph)	164	14	251	9	11	6	226	363	13	12	257	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1760		1770	1853		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1760		1770	1853		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	178	15	273	10	12	7	246	395	14	13	279	96
RTOR Reduction (vph)	0	0	229	0	7	0	0	2	0	0	0	67
Lane Group Flow (vph)	178	15	44	10	12	0	246	407	0	13	279	29
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	7.3	8.1	8.1	0.6	1.4		10.2	24.4		0.6	14.8	14.8
Effective Green, g (s)	7.3	8.1	8.1	0.6	1.4		10.2	24.4		0.6	14.8	14.8
Actuated g/C Ratio	0.15	0.16	0.16	0.01	0.03		0.21	0.49		0.01	0.30	0.30
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	259	303	257	21	49		363	909		21	554	471
v/s Ratio Prot	c0.10	0.01		0.01	0.01		c0.14	c0.22		0.01	0.15	
v/s Ratio Perm			c0.03									0.02
v/c Ratio	0.69	0.05	0.17	0.48	0.25		0.68	0.45		0.62	0.50	0.06
Uniform Delay, d1	20.1	17.6	17.9	24.4	23.6		18.2	8.3		24.4	14.4	12.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.4	0.1	0.3	16.0	2.7		5.0	0.4		43.9	0.7	0.1
Delay (s)	27.5	17.6	18.2	40.4	26.3		23.2	8.6		68.3	15.1	12.5
Level of Service	С	В	В	D	С		С	Α		Е	В	В
Approach Delay (s)		21.8			31.2			14.1			16.3	
Approach LOS		С			С			В			В	
Intersection Summary												
HCM 2000 Control Delay			17.3	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	acity ratio		0.60		O 2000	2010.0.	00.1.00					
Actuated Cycle Length (s)	aoity raile		49.7	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		51.8%			of Service			A			
Analysis Period (min)			15									
c Critical Lane Group			.,									

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	35	381	100	1022	39	129	462	196	
v/c Ratio	0.62	0.47	0.71	1.11	0.21	0.66	1.04	0.40	
Control Delay	111.2	30.7	90.1	97.4	61.2	71.8	106.1	14.9	
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
Total Delay	111.2	30.7	90.1	97.7	61.2	71.8	106.1	14.9	
Queue Length 50th (ft)	33	252	92	~1113	34	106	~478	34	
Queue Length 95th (ft)	#93	351	#169	#1390	72	179	#703	107	
nternal Link Dist (ft)		1935		786		1468	502		
Turn Bay Length (ft)	85		105		165				
Base Capacity (vph)	56	823	159	923	213	225	443	496	
Starvation Cap Reductn	0	0	0	52	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.63	0.46	0.63	1.17	0.18	0.57	1.04	0.40	

Intersection Summary

Queue shown is maximum after two cycles.

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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	2	272	254	116	725	422	106	57	
v/c Ratio	0.03	0.43	0.36	0.59	0.82	0.80	0.20	0.38	
Control Delay	49.5	28.8	4.9	54.8	32.3	45.6	19.9	48.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	49.5	28.8	4.9	54.8	32.3	45.6	19.9	48.2	
Queue Length 50th (ft)	1	133	0	70	371	242	31	31	
Queue Length 95th (ft)	10	223	55	136	#707	#467	82	75	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	74	725	771	262	919	541	554	428	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.03	0.38	0.33	0.44	0.79	0.78	0.19	0.13	
Intersection Summary									

^{# 95}th percentile volume exceeds capacity, queue may be longer.

3: Silva Valley Pkwy. & Green Valley Rd.

Queue shown is maximum after two cycles.

Dixon Ranch

Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

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Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1611	492	1478	266	672	1826
v/c Ratio	0.69	0.31	0.68	0.34	0.85	0.51
Control Delay	3.7	0.5	17.9	6.1	24.0	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	0.5	17.9	6.1	24.0	8.6
Queue Length 50th (ft)	46	0	175	18	304	158
Queue Length 95th (ft)	24	0	238	64	m312	m170
Internal Link Dist (ft)			720			318
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	2324	1611	2173	786	898	3549
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.31	0.68	0.34	0.75	0.51
Intersection Summary						
m Volume for 95th percer	ntile queue i	s metere	d by upst	ream sigi	nal.	

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Lana Craun	EBL	EBT	EBR	NBL	NBT	SBT	SBR	
Lane Group								
Lane Group Flow (vph)	216	211	108	620	626	1089	636	
v/c Ratio	0.73	0.62	0.30	0.76	0.24	0.71	0.65	
Control Delay	45.5	28.5	8.5	35.5	4.2	11.8	5.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	1.4	
Total Delay	45.5	28.5	8.5	35.5	4.2	12.0	6.4	
Queue Length 50th (ft)	105	69	0	148	50	215	54	
Queue Length 95th (ft)	#183	145	42	207	69	m267	m60	
Internal Link Dist (ft)		797			881	399		
Turn Bay Length (ft)								
Base Capacity (vph)	336	375	387	815	2558	1541	980	
Starvation Cap Reductn	0	0	0	0	0	66	171	
Spillback Cap Reductn	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.64	0.56	0.28	0.76	0.24	0.74	0.79	
Intersection Summary								
# 95th percentile volume	exceeds ca	nacity di	ielle mav	he longe	r			

^{# 95}th percentile volume exceeds capacity, queue may be longer

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

	•	←	•	•	†	ţ	4	
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	399	384	364	377	665	1155	561	
v/c Ratio	0.91	0.85	0.61	0.92	0.29	0.92	0.61	
Control Delay	56.4	41.7	11.5	63.9	6.6	32.1	3.2	
Queue Delay	0.0	1.7	0.7	0.0	0.2	46.4	1.1	
Total Delay	56.4	43.4	12.2	63.9	6.8	78.5	4.3	
Queue Length 50th (ft)	203	161	33	194	61	295	0	
Queue Length 95th (ft)	#373	#330	121	#350	88	#409	24	
Internal Link Dist (ft)		1051			399	84		
Turn Bay Length (ft)			360					
Base Capacity (vph)	441	455	602	420	2261	1261	925	
Starvation Cap Reductn	0	0	0	0	0	310	166	
Spillback Cap Reductn	0	16	61	0	783	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.90	0.87	0.67	0.90	0.45	1.21	0.74	
Intersection Summary								
# 05th percentile volume	ovooodo oo	nooity a	IOUO MOI	ho longe	r			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

ᄩ	AP
PM	Peak

	•	-	•	←	4	†	ļ	4	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	150	1066	55	716	60	333	174	118	
v/c Ratio	0.88	1.05	1.00	0.81	0.22	1.16	0.72	0.38	
Control Delay	106.1	75.0	185.8	40.5	55.8	154.5	75.8	12.4	
Queue Delay	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	
Total Delay	106.1	75.0	185.8	41.7	55.8	154.5	75.8	12.4	
Queue Length 50th (ft)	140	~1090	52	560	50	~359	156	0	
Queue Length 95th (ft)	#272	#1386	#150	764	96	#570	240	58	
Internal Link Dist (ft)		1935		786		1468	502		
Turn Bay Length (ft)	85		105		165				
Base Capacity (vph)	175	1013	55	882	274	286	283	345	
Starvation Cap Reductn	0	0	0	49	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.86	1.05	1.00	0.86	0.22	1.16	0.61	0.34	

Intersection Summary

	۶	→	•	•	←	1	†	↓	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	10	775	415	70	460	307	135	16	
v/c Ratio	0.12	0.81	0.44	0.70	0.41	0.79	0.30	0.13	
Control Delay	46.4	27.3	6.5	78.2	12.3	49.6	10.6	37.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.4	27.3	6.5	78.2	12.3	49.6	10.6	37.3	
Queue Length 50th (ft)	5	302	35	37	101	151	8	6	
Queue Length 95th (ft)	23	#642	117	#118	269	#323	59	27	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	80	959	947	100	1117	390	447	450	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.13	0.81	0.44	0.70	0.41	0.79	0.30	0.04	
Intersection Summary									
" 05" " 1									

^{# 95}th percentile volume exceeds capacity, queue may be longer.

3: Silva Valley Pkwy. & Green Valley Rd.

Queue shown is maximum after two cycles.

Dixon Ranch

Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

	•	•	†	/	\	↓
Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1547	1121	2097	673	573	1057
v/c Ratio	0.67	0.70	0.83	0.78	0.87	0.34
Control Delay	3.5	2.5	17.8	18.2	25.8	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.5	2.5	17.8	18.2	25.8	3.1
Queue Length 50th (ft)	35	0	235	148	193	20
Queue Length 95th (ft)	55	0	#313	#347	m259	m23
Internal Link Dist (ft)			720			333
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	2308	1611	2517	867	708	3097
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.70	0.83	0.78	0.81	0.34

Intersection Summary

	۶	→	\rightarrow	•	†	ţ	4
Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	272	272	180	808	999	1123	922
v/c Ratio	0.95	0.86	0.44	0.98	0.38	0.68	0.93
Control Delay	85.6	57.7	9.4	66.0	4.8	22.8	22.2
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.8	6.6
Total Delay	85.6	57.9	9.4	66.0	4.8	23.6	28.8
Queue Length 50th (ft)	183	150	0	264	96	225	220
Queue Length 95th (ft)	#349	#308	61	#390	123	m262	m#274
Internal Link Dist (ft)		797			881	399	
Turn Bay Length (ft)							
Base Capacity (vph)	285	318	405	823	2654	1663	987
Starvation Cap Reductn	0	0	0	0	0	259	51
Spillback Cap Reductn	0	1	0	0	68	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.86	0.44	0.98	0.39	0.80	0.99
Intersection Summary		!		h = 1====			

^{# 95}th percentile volume exceeds capacity, queue may be longer.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

	•	←	•	4	†	↓	4
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	542	536	487	352	1171	1062	373
v/c Ratio	0.94	0.93	0.87	0.95	0.57	0.92	0.49
Control Delay	59.2	53.0	43.4	67.9	19.4	44.0	8.4
Queue Delay	0.8	46.2	42.4	0.0	0.4	47.0	1.9
Total Delay	60.1	99.2	85.8	67.9	19.9	91.0	10.3
Queue Length 50th (ft)	351	329	263	231	310	360	45
Queue Length 95th (ft)	#574	#563	#465	m#361	m370	#466	132
Internal Link Dist (ft)		1051			399	84	
Turn Bay Length (ft)			360				
Base Capacity (vph)	575	578	563	371	2052	1167	772
Starvation Cap Reductn	0	0	0	0	403	330	251
Spillback Cap Reductn	4	118	112	0	84	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	1.17	1.08	0.95	0.71	1.27	0.72
Intersection Cummen							

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Appendix F:

Analysis Worksheets for Existing plus Approved Projects (2018) plus Proposed Project Conditions

	٠	→	•	•	←	•	1	†	~	/		1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	16.54	44	71	jąć,	44	74	34, 46	1		14	4	7
Volume (vph)	158	322	229	73	961	76	316	171	7	91	283	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3517		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3517		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	172	350	249	79	1045	83	343	186	8	99	308	399
RTOR Reduction (vph)	0	0	162	0	0	55	0	4	0	0	0	123
Lane Group Flow (vph)	172	350	87	79	1045	28	343	190	0	99	308	276
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	5.0	27.2	27.2	3.9	26.1	26.1	9.9	23.8		4.6	18.5	18.5
Effective Green, g (s)	5.0	27.2	27.2	3.9	26.1	26.1	9.9	23.8		4.6	18.5	18.5
Actuated g/C Ratio	0.06	0.35	0.35	0.05	0.34	0.34	0.13	0.31		0.06	0.24	0.24
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	220	1238	554	88	1188	531	437	1077		104	443	376
v/s Ratio Prot	c0.05	0.10		0.04	c0.30		c0.10	0.05		0.06	0.17	
v/s Ratio Perm			0.06			0.02						c0.17
v/c Ratio	0.78	0.28	0.16	0.90	0.88	0.05	0.78	0.18		0.95	0.70	0.73
Uniform Delay, d1	35.8	18.2	17.4	36.7	24.3	17.4	32.9	19.8		36.4	27.0	27.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	16.4	0.1	0.1	62.7	7.7	0.0	9.0	0.1		72.5	4.7	7.2
Delay (s)	52.2	18.3	17.5	99.4	32.0	17.5	41.8	19.8		108.9	31.7	34.5
Level of Service	D	В	В	F	С	В	D	В		F	С	С
Approach Delay (s)		25.6			35.4			33.9			42.6	
Approach LOS		С			D			С			D	
Intersection Summary												
HCM 2000 Control Delay			34.6	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.81									
Actuated Cycle Length (s)	_		77.7			t time (s)			18.2			
Intersection Capacity Utiliza	ation		70.1%	IC	U Level	of Service)		С			
Analysis Period (min)			15									
c Critical Lane Group												

	۶	→	•	•	←	•	1	1	~	/	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3	14		140	7+		140	To			4	7
Volume (vph)	32	369	17	120	977	66	36	84	45	119	308	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1770	1851		1770	1845		1770	1765			1837	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (perm)	1770	1851		1770	1845		1770	1765			1837	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	401	18	130	1062	72	39	91	49	129	335	196
RTOR Reduction (vph)	0	1	0	0	2	0	0	13	0	0	0	115
Lane Group Flow (vph)	35	418	0	130	1132	0	39	127	0	0	464	81
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	3.5	61.9		12.2	70.6		15.1	15.1			34.1	34.1
Effective Green, g (s)	3.5	61.9		12.2	70.6		15.1	15.1			34.1	34.1
Actuated g/C Ratio	0.02	0.43		0.09	0.50		0.11	0.11			0.24	0.24
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
Lane Grp Cap (vph)	43	805		151	915		187	187			440	379
v/s Ratio Prot	0.02	0.23		c0.07	c0.61		0.02	c0.07			c0.25	
v/s Ratio Perm												0.05
v/c Ratio	0.81	0.52		0.86	1.24		0.21	0.68			1.05	0.21
Uniform Delay, d1	69.1	29.3		64.2	35.9		58.1	61.3			54.1	43.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	68.4	1.1		36.0	116.4		1.0	11.0			58.0	0.5
Delay (s)	137.4	30.5		100.2	152.2		59.1	72.2			112.1	43.9
Level of Service	F	С		F	F		Е	Е			F	D
Approach Delay (s)		38.7			146.9			69.4			91.8	
Approach LOS		D			F			Е			F	
Intersection Summary												
HCM 2000 Control Delay			108.0	Н	CM 2000	Level of S	Service		F			
HCM 2000 Volume to Capa	city ratio		1.11									
Actuated Cycle Length (s)			142.3	S	um of los	t time (s)			19.0			
Intersection Capacity Utiliza	ation		105.0%	10	CU Level	of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

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	-	\rightarrow	•	←	4	~	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	Ta-			4	10	严	
Volume (veh/h)	416	13	6	925	23	6	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	452	14	7	1005	25	7	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			466		1478	459	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			466		1478	459	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		82	99	
cM capacity (veh/h)			1095		138	602	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2			
Volume Total	466	1012	25	7			
Volume Left	400	7	25	0			
Volume Right	14	0	0	7			
cSH	1700	1095	138	602			
Volume to Capacity	0.27	0.01	0.18	0.01			
Queue Length 95th (ft)	0.27	0.01	16	1			
Control Delay (s)	0.0	0.2	36.8	11.0			
Lane LOS	0.0	0.2 A	30.8 E	11.0 B			
Approach Delay (s)	0.0	0.2	31.5	В			
Approach LOS	0.0	0.2	31.5 D				
••			ט				
Intersection Summary							
Average Delay			0.8				
Intersection Capacity Utilization	ation		63.5%	IC	U Level of	of Service	В
Analysis Period (min)			15				

c Critical Lane Group

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Lane Configurations

Volume (veh/h)

Peak Hour Factor Hourly flow rate (vph)

Median storage veh) Upstream signal (ft) pX, platoon unblocked

vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol

tC, single (s) tC, 2 stage (s)

p0 queue free %

Volume Total

Volume Left

Volume Right

cSH

cM capacity (veh/h) Direction, Lane #

Volume to Capacity Queue Length 95th (ft)

Control Delay (s)

Approach LOS

Intersection Summary Average Delay

Analysis Period (min)

Intersection Capacity Utilization

Lane LOS Approach Delay (s)

tF (s)

Sign Control

Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type

Grade

0.92

903

Free

0%

0.92

982

411

Free

0%

0.92

None None

0.92

12 447

986

4.1

2.2

98

701

459

12

0

701 1700

0.02

0.5 0.0

0.5

EB1 WB1 SB1

986

0.58

0 17

0.0 24.8

43

13 30

225

0.19

24.8

С

0.9

15

57.8%

SBL

Stop

0%

0.92

13

1454 984

1454

6.4

3.5

91

141

ICU Level of Service

28

0.92

30

984

6.2

3.3

90

302

	•	-	←	•	-	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	10		874		
Volume (veh/h)	6	394	893	2	8	21	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	7	428	971	2	9	23	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	973				1413	972	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	973				1413	972	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.3	
p0 queue free %	99				94	93	
cM capacity (veh/h)	709				150	306	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	435	973	32				
Volume Left	7	0	9				
Volume Right	0	2	23				
cSH	709	1700	238				
Volume to Capacity	0.01	0.57	0.13				
Queue Length 95th (ft)	1	0	11				
Control Delay (s)	0.3	0.0	22.4				
Lane LOS	Α		С				
Approach Delay (s)	0.3	0.0	22.4				
Approach LOS			С				
Intersection Summary							
Average Delay			0.6				
Intersection Capacity Utiliza	ation		57.1%	IC	CU Level	of Service	В
Analysis Period (min)			15				

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EPAP+PP

AM Peak

Dixon Ranch				
8: Silver Springs	Pkwy &	Green	Valley	R

EP	AP+PP
	AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3,2	To.		Jal.	7.			4			4	
Volume (veh/h)	7	350	2	11	637	6	12	0	32	21	0	28
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	380	2	12	692	7	13	0	35	23	0	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	699			383			1143	1120	382	1150	1117	696
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	699			383			1143	1120	382	1150	1117	696
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			92	100	95	86	100	93
cM capacity (veh/h)	898			1176			163	203	666	164	203	442
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	8	383	12	699	48	53						
Volume Left	8	0	12	0	13	23						
Volume Right	0	2	0	7	35	30						
cSH	898	1700	1176	1700	361	256						
Volume to Capacity	0.01	0.23	0.01	0.41	0.13	0.21						
Queue Length 95th (ft)	1	0	1	0	11	19						
Control Delay (s)	9.0	0.0	8.1	0.0	16.5	22.7						
Lane LOS	A		A		C	C						
Approach Delay (s)	0.2		0.1		16.5	22.7						
Approach LOS					С	С						
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization	n		45.2%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

	→	\rightarrow	•	←	4	<i>></i>	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1>			4	gA		
Volume (vph)	605	47	9	778	109	26	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0			4.0	4.0		
Lane Util. Factor	1.00			1.00	1.00		
Frt	0.99			1.00	0.97		
Flt Protected	1.00			1.00	0.96		
Satd. Flow (prot)	1845			1862	1744		
Flt Permitted	1.00			0.99	0.96		
Satd. Flow (perm)	1845			1849	1744		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	658	51	10	846	118	28	
RTOR Reduction (vph)	5	0	0	0	15	0	
Lane Group Flow (vph)	704	0	0	856	131	0	
Turn Type	NA		Perm	NA	NA		
Protected Phases	4			8	2		
Permitted Phases			8				
Actuated Green, G (s)	25.4			25.4	9.0		
Effective Green, g (s)	25.4			25.4	9.0		
Actuated g/C Ratio	0.60			0.60	0.21		
Clearance Time (s)	4.0			4.0	4.0		
Vehicle Extension (s)	3.0			3.0	3.0		
Lane Grp Cap (vph)	1105			1107	370		
v/s Ratio Prot	0.38				c0.08		
v/s Ratio Perm				c0.46			
v/c Ratio	0.64			0.77	0.35		
Uniform Delay, d1	5.5			6.3	14.2		
Progression Factor	1.00			1.00	1.00		
Incremental Delay, d2	1.2			3.4	0.6		
Delay (s)	6.7			9.8	14.8		
Level of Service	Α			Α	В		
Approach Delay (s)	6.7			9.8	14.8		
Approach LOS	Α			Α	В		
Intersection Summary							
HCM 2000 Control Delay			8.9	H	CM 2000	Level of Service	
HCM 2000 Volume to Capac	city ratio		0.66				
Actuated Cycle Length (s)			42.4		um of lost	(-)	
Intersection Capacity Utilizat	tion		62.4%	IC	U Level o	of Service	
Analysis Period (min)			15				
c Critical Lane Group							

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Volume (vph) 11 427 93 22 530 6 213 Ideal Flow (vphpl) 1900	1 1 2 2 2 0 1900 0 4.0	49 1900	SBL 14	SBT	SBF
Volume (vph) 11 427 93 22 530 6 213 Ideal Flow (vphpl) 1900	2 2 0 1900 0 4.0	49 1900	14	414	
Ideal Flow (vphpl) 1900 4.0 1.00 1.00 1.00 1.00 1.00 1.93 1777 1813 1770 1859 1777 1813 1770 1859 1777 1859 1777	0 1900 0 4.0	1900	14		
Total Lost time (s) 4.0 4.0 4.0 4.0 4.0 4.0 4.1 4.0 1.00 <th< td=""><td>0 4.0</td><td></td><td></td><td>4</td><td>42</td></th<>	0 4.0			4	42
Lane Util. Factor 1.00 1.00 1.00 1.00 1.00 Frt 1.00 0.97 1.00 1.00 1.00 Fit Protected 0.95 1.00 0.95 1.00 0.95 Satd. Flow (prot) 1770 1813 1770 1859 1770 Fit Permitted 0.95 1.00 0.95 1.00 0.95 Satd. Flow (perm) 1770 1813 1770 1859 1770 Peak-hour factor, PHF 0.92			1900	1900	1900
Frt 1.00 0.97 1.00 1.00 1.00 Fit Protected 0.95 1.00 0.95 1.00 0.95 Satd. Flow (prot) 1770 1813 1770 1859 1770 Fit Permitted 0.95 1.00 0.95 1.00 0.95 Satd. Flow (perm) 1770 1813 1770 1859 1770 Peak-hour factor, PHF 0.92 <t< td=""><td>0 100</td><td></td><td></td><td>4.0</td><td></td></t<>	0 100			4.0	
Fit Protected 0.95 1.00 0.95 1.00 0.95 Satd. Flow (prot) 1770 1813 1770 1859 1777 Fit Permitted 0.95 1.00 0.95 1.00 0.95 Satd. Flow (perm) 1770 1813 1770 1859 1777 Peak-hour factor, PHF 0.92	1.00			1.00	
Satd. Flow (prot) 1770 1813 1770 1859 1770 Flt Permitted 0.95 1.00 0.95 1.00 0.95 Satd. Flow (perm) 1770 1813 1770 1859 1770 Peak-hour factor, PHF 0.92	0.86			0.90	
Fit Permitted 0.95 1.00 0.95 1.00 0.95 Satd. Flow (perm) 1770 1813 1770 1859 1770 Peak-hour factor, PHF 0.92	5 1.00			0.99	
Satd. Flow (perm) 1770 1813 1770 1859 1770 Peak-hour factor, PHF 0.92	0 1593			1666	
Peak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.93 0.92 0.92 0.93	5 1.00			0.99	
Adj. Flow (vph) 12 464 101 24 576 7 23 RTOR Reduction (vph) 0 9 0 0 1 0 0 Lane Group Flow (vph) 12 556 0 24 582 0 23 Turn Type Prot NA Prot NA Spli	0 1593			1666	
RTOR Reduction (vph) 0 9 0 0 1 0 0 Lane Group Flow (vph) 12 556 0 24 582 0 230 Turn Type Prot NA Prot NA Spli	2 0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 12 556 0 24 582 0 230 Turn Type Prot NA Prot NA Spli	0 2	53	15	4	46
Turn Type Prot NA Prot NA Spli	0 42	0	0	43	(
	0 13	0	0	22	(
Protected Phases 7 4 3 8	it NA		Split	NA	
	2 2		6	6	
Permitted Phases					
Actuated Green, G (s) 0.6 24.9 1.3 25.6 11.9	9 11.9			3.8	
Effective Green, g (s) 0.6 24.9 1.3 25.6 11.9	9 11.9			3.8	
Actuated g/C Ratio 0.01 0.43 0.02 0.44 0.2	1 0.21			0.07	
Clearance Time (s) 4.0 4.0 4.0 4.0 4.1	0 4.0			4.0	
Vehicle Extension (s) 3.0 3.0 3.0 3.0	0 3.0			3.0	
Lane Grp Cap (vph) 18 779 39 821 363	3 327			109	
v/s Ratio Prot 0.01 0.31 c0.01 c0.31 c0.13	3 0.01			c0.01	
v/s Ratio Perm					
v/c Ratio 0.67 0.71 0.62 0.71 0.63	3 0.04			0.20	
Uniform Delay, d1 28.6 13.6 28.1 13.1 21.0	0 18.4			25.6	
Progression Factor 1.00 1.00 1.00 1.00 1.00	0 1.00			1.00	
Incremental Delay, d2 66.1 3.1 25.5 2.8 3.0	6 0.0			0.9	
Delay (s) 94.6 16.7 53.5 16.0 24.6	6 18.5			26.5	
Level of Service F B D B (С В			С	
Approach Delay (s) 18.3 17.4	23.4			26.5	
Approach LOS B B	С			С	
Intersection Summary					
HCM 2000 Control Delay 19.3 HCM 2000 Level of Service	е	В			
HCM 2000 Volume to Capacity ratio 0.65					
Actuated Cycle Length (s) 57.9 Sum of lost time (s)		40.0			
Intersection Capacity Utilization 53.3% ICU Level of Service		16.0			
Analysis Period (min) 15		16.0 A			
c Critical Lane Group					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3,1	To		Jac.	7+			4	ř*		4	
Volume (vph)	4	446	162	169	616	5	222	4	69	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.96		1.00	1.00			1.00	0.85		0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1788		1770	1861			1775	1583		1695	
Flt Permitted	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1788		1770	1861			1775	1583		1695	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	485	176	184	670	5	241	4	75	1	0	1
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	61	0	2	0
Lane Group Flow (vph)	4	649	0	184	675	0	0	245	14	0	0	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	0.7	33.6		10.1	43.0			14.1	14.1		0.9	
Effective Green, g (s)	0.7	33.6		10.1	43.0			14.1	14.1		0.9	
Actuated g/C Ratio	0.01	0.45		0.14	0.58			0.19	0.19		0.01	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	16	804		239	1071			335	298		20	
v/s Ratio Prot	0.00	c0.36		c0.10	0.36			c0.14			c0.00	
v/s Ratio Perm									0.01			
v/c Ratio	0.25	0.81		0.77	0.63			0.73	0.05		0.00	
Uniform Delay, d1	36.7	17.8		31.2	10.6			28.5	24.8		36.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	8.1	6.0		13.9	1.2			8.0	0.1		0.0	
Delay (s)	44.8	23.7		45.0	11.8			36.5	24.9		36.5	
Level of Service	D	С		D	В			D	С		D	
Approach Delay (s)		23.8			18.9			33.8			36.5	
Approach LOS		С			В			С			D	
Intersection Summary												
HCM 2000 Control Delay			23.3	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capa	city ratio		0.77		J 2000	2010.0.	5011100		, i			
Actuated Cycle Length (s)	on, and		74.7	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	tion		71.9%			of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

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5/7/2013 Kimley-Horn and Associates, Inc.

Dixon Ranch		
12: Fl Dorado Hills	Blvd. & Francisco I	٦r

EP	AP+PP
	AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ৰ	54,		4		jąc	To.		14	1>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	49	485	45	64	42	407	156	37	125	383	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	53	527	49	70	46	442	170	40	136	416	3
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	55	527	164	442	210	136	420					
Volume Left (vph)	2	0	49	442	0	136	0					
Volume Right (vph)	0	527	46	0	40	0	3					
Hadj (s)	0.04	-0.57	-0.07	0.53	-0.10	0.53	0.03					
Departure Headway (s)	7.3	3.2	6.7	6.6	6.0	6.8	6.3					
Degree Utilization, x	0.11	0.47	0.31	0.81	0.35	0.26	0.73					
Capacity (veh/h)	447	1116	502	533	585	513	557					
Control Delay (s)	11.2	9.0	12.6	31.3	11.0	10.9	23.1					
Approach Delay (s)	9.2		12.6	24.8		20.1						
Approach LOS	Α		В	С		С						
Intersection Summary												
Delay			17.8									
Level of Service			С									
Intersection Capacity Utiliza	tion		68.8%	IC	U Level	of Service			С			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	7.		Jal.	7.		,tec	10		14	1>	
Volume (vph)	25	162	302	116	258	4	283	16	77	9	64	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.90		1.00	1.00		1.00	0.88		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1681		1770	1859		1770	1630		1770	1789	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1681		1770	1859		1770	1630		1770	1789	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	176	328	126	280	4	308	17	84	10	70	25
RTOR Reduction (vph)	0	95	0	0	1	0	0	56	0	0	21	0
Lane Group Flow (vph)	27	409	0	126	283	0	308	45	0	10	74	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.5	18.7		5.1	22.3		12.1	20.1		0.7	8.7	
Effective Green, g (s)	1.5	18.7		5.1	22.3		12.1	20.1		0.7	8.7	
Actuated g/C Ratio	0.02	0.31		0.08	0.37		0.20	0.33		0.01	0.14	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	43	518		148	684		353	540		20	256	
v/s Ratio Prot	0.02	c0.24		c0.07	c0.15		c0.17	0.03		0.01	c0.04	
v/s Ratio Perm												
v/c Ratio	0.63	0.79		0.85	0.41		0.87	0.08		0.50	0.29	
Uniform Delay, d1	29.3	19.2		27.4	14.3		23.5	13.9		29.8	23.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	25.3	8.0		34.8	0.4		20.4	0.1		18.3	0.6	
Delay (s)	54.6	27.2		62.2	14.7		43.9	14.0		48.1	23.8	
Level of Service	D	С		Е	В		D	В		D	С	
Approach Delay (s)		28.6			29.3			36.5			26.1	
Approach LOS		С			С			D			С	
Intersection Summary												
HCM 2000 Control Delay			30.8	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	citv ratio		0.69									
Actuated Cycle Length (s)	,		60.6	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	tion		65.8%		CU Level		:		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	35	PF.	41 2		14.44	+ +			
Volume (vph)	399	147	354	328	265	945			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	1.00	0.95		0.97	0.95			
Frt	1.00	0.85	0.93		1.00	1.00			
Flt Protected	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (prot)	1770	1583	3284		3433	3539			
It Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	1770	1583	3284		3433	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	434	160	385	357	288	1027			
RTOR Reduction (vph)	0	108	262	0	0	0			
ane Group Flow (vph)	434	52	480	0	288	1027			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8							
Actuated Green, G (s)	14.2	14.2	11.7		6.1	21.8			
Effective Green, g (s)	14.2	14.2	11.7		6.1	21.8			
Actuated g/C Ratio	0.32	0.32	0.27		0.14	0.50			
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0			
/ehicle Extension (s)	3.0	3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	571	510	873		475	1753			
//s Ratio Prot	c0.25		0.15		0.08	c0.29			
//s Ratio Perm		0.03							
//c Ratio	0.76	0.10	0.55		0.61	0.59			
Jniform Delay, d1	13.4	10.4	13.9		17.8	7.9			
Progression Factor	1.00	1.00	1.00		1.00	1.00			
ncremental Delay, d2	5.9	0.1	0.7		2.2	0.5			
Delay (s)	19.3	10.5	14.6		20.0	8.4			
evel of Service	В	В	В		С	Α			
Approach Delay (s)	16.9		14.6			10.9			
Approach LOS	В		В			В			
ntersection Summary									
HCM 2000 Control Delay			13.3	Н	CM 2000	Level of Service	e	В	
HCM 2000 Volume to Capa	acity ratio		0.74						
Actuated Cycle Length (s)			44.0		um of los			12.0	
Intersection Capacity Utiliza	ation		60.0%	IC	CU Level	of Service		В	
Analysis Period (min)			15						
c Critical Lane Group									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J,	T.		Jal.	4		14	44	ř.	19	41>	
Volume (vph)	23	15	84	664	14	86	32	692	198	66	1552	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.87		1.00	0.97		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	0.96		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1625		1681	1649		1770	3539	1583	1770	3529	
Flt Permitted	0.95	1.00		0.95	0.96		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1625		1681	1649		1770	3539	1583	1770	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	16	91	722	15	93	35	752	215	72	1687	33
RTOR Reduction (vph)	0	27	0	0	8	0	0	0	0	0	1	0
Lane Group Flow (vph)	25	80	0	419	403	0	35	752	215	72	1719	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		. 8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	6.9	6.9		33.8	33.8		3.5	68.2	130.0	6.9	71.6	
Effective Green, g (s)	6.9	6.9		33.8	33.8		3.5	68.2	130.0	6.9	71.6	
Actuated g/C Ratio	0.05	0.05		0.26	0.26		0.03	0.52	1.00	0.05	0.55	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	93	86		437	428		47	1856	1583	93	1943	
v/s Ratio Prot	0.01	c0.05		c0.25	0.24		c0.02	0.21		0.04	c0.49	
v/s Ratio Perm									0.14			
v/c Ratio	0.27	0.92		0.96	0.94		0.74	0.41	0.14	0.77	0.88	
Uniform Delay, d1	59.1	61.3		47.4	47.1		62.8	18.7	0.0	60.8	25.6	
Progression Factor	1.00	1.00		1.00	1.00		0.76	0.59	1.00	1.00	1.00	
Incremental Delay, d2	0.6	71.1		32.0	28.8		41.6	0.6	0.2	29.8	6.3	
Delay (s)	59.7	132.4		79.4	75.9		89.2	11.7	0.2	90.5	31.9	
Level of Service	Е	F		Е	Е		F	В	Α	F	С	
Approach Delay (s)		118.6			77.7			11.9			34.3	
Approach LOS		F			Е			В			С	
Intersection Summary												
HCM 2000 Control Delay			40.9	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.90									
Actuated Cycle Length (s)	,		130.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utiliza	ition		86.2%		U Level)		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch
16: El Dorado Hills Blvd. & Saratoga Wy. (South)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	54,	Jal.	4	74	34,46	ተተጉ		1	444	#
Volume (vph)	176	82	740	161	189	56	828	839	162	66	1439	836
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	0.97	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1737	1583	1681	1762	1583	3433	4962		1770	5085	1583
Flt Permitted	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1681	1737	1583	1681	1762	1583	3433	4962		1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	89	804	175	205	61	900	912	176	72	1564	909
RTOR Reduction (vph)	0	0	0	0	0	51	0	19	0	0	0	0
Lane Group Flow (vph)	138	142	804	157	223	10	900	1069	0	72	1564	909
Turn Type	Split	NA	Free	Split	NA	Perm	Prot	NA		Prot	NA	Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			Free			8						Free
Actuated Green, G (s)	14.4	14.4	130.0	20.6	20.6	20.6	38.1	69.6		9.4	40.9	130.0
Effective Green, g (s)	14.4	14.4	130.0	20.6	20.6	20.6	38.1	69.6		9.4	40.9	130.0
Actuated g/C Ratio	0.11	0.11	1.00	0.16	0.16	0.16	0.29	0.54		0.07	0.31	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		2.2	2.2	2.2	3.0	3.5		2.0	2.5	
Lane Grp Cap (vph)	186	192	1583	266	279	250	1006	2656		127	1599	1583
v/s Ratio Prot	c0.08	0.08		0.09	c0.13		c0.26	0.22		0.04	c0.31	
v/s Ratio Perm			0.51			0.01						0.57
v/c Ratio	0.74	0.74	0.51	0.59	0.80	0.04	0.89	0.40		0.57	0.98	0.57
Uniform Delay, d1	56.0	56.0	0.0	50.8	52.7	46.3	44.0	17.9		58.3	44.1	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.95		0.72	0.66	1.00
Incremental Delay, d2	14.7	13.9	1.2	2.6	14.0	0.0	8.6	0.4		1.7	11.4	0.7
Delay (s)	70.7	69.8	1.2	53.3	66.7	46.3	47.5	17.4		43.4	40.6	0.7
Level of Service	Е	E	Α	D	Е	D	D	В		D	D	Α
Approach Delay (s)		19.0			59.1			31.0			26.4	
Approach LOS		В			Е			С			С	
Intersection Summary												
HCM 2000 Control Delay			29.0	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.89									
Actuated Cycle Length (s)			130.0		um of los				16.0			
Intersection Capacity Utiliz	ation		81.7%	IC	U Level	of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	74	Jąt,	ĵ.		146	44%		19	1	
Volume (vph)	31	11	203	13	13	51	191	843	32	125	2085	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.91		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1681	1728	1583	1770	1640		1770	5057		1770	3533	
Flt Permitted	0.95	0.98	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1681	1728	1583	1770	1640		1770	5057		1770	3533	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	12	221	14	14	55	208	916	35	136	2266	29
RTOR Reduction (vph)	0	0	209	0	53	0	0	2	0	0	0	0
Lane Group Flow (vph)	23	23	12	14	16	0	208	949	0	136	2295	0
Turn Type	Split	NA	Prot	Split	NA		Prot	NA		Prot	NA	
Protected Phases	7	7	7	8	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	6.8	6.8	6.8	4.8	4.8		10.0	82.7		18.0	90.7	
Effective Green, g (s)	6.8	6.8	6.8	4.8	4.8		10.0	84.4		18.0	92.4	
Actuated g/C Ratio	0.05	0.05	0.05	0.04	0.04		0.08	0.65		0.14	0.71	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.7		4.0	5.7	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	4.2		0.2	4.2	
Lane Grp Cap (vph)	87	90	82	65	60		136	3283		245	2511	
v/s Ratio Prot	c0.01	0.01	0.01	0.01	c0.01		c0.12	0.19		0.08	c0.65	
v/s Ratio Perm												
v/c Ratio	0.26	0.26	0.14	0.22	0.27		1.53	0.29		0.56	0.91	
Uniform Delay, d1	59.2	59.2	58.8	60.8	60.9		60.0	9.8		52.3	15.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.85	0.54		0.83	0.49	
Incremental Delay, d2	0.6	0.5	0.3	0.6	0.9		269.3	0.2		0.7	3.1	
Delay (s)	59.8	59.7	59.1	61.4	61.8		320.2	5.5		43.9	10.6	
Level of Service	E	Е	Е	E	Е		F	Α		D	В	
Approach Delay (s)		59.2			61.7			62.0			12.5	
Approach LOS		Ε			Е			Е			В	
Intersection Summary												
HCM 2000 Control Delay			31.3	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.90									
Actuated Cycle Length (s)	-		130.0	S	um of los	time (s)			16.0			
Intersection Capacity Utiliza	tion		86.9%	IC	CU Level	of Service			Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			74.54			74		444	P ^e	1	1111	
Volume (vph)	0	0	1482	0	0	468	0	1360	245	618	1680	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1611	0	0	509	0	1478	266	672	1826	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	110	0	0	0
Lane Group Flow (vph)	0	0	1611	0	0	509	0	1478	156	672	1826	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			50.2			65.0		27.8	27.8	29.2	36.0	
Effective Green, g (s)			50.2			65.0		27.8	27.8	29.2	36.0	
Actuated g/C Ratio			0.77			1.00		0.43	0.43	0.45	0.55	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			2323			1611		2174	677	795	3549	
v/s Ratio Prot			0.22					c0.29		c0.38	0.28	
v/s Ratio Perm			0.35			0.32			0.10			
v/c Ratio			0.69			0.32		0.68	0.23	0.85	0.51	
Uniform Delay, d1			3.6			0.0		15.0	11.8	15.9	9.0	
Progression Factor			1.00			1.00		1.00	1.00	1.11	0.92	
Incremental Delay, d2			0.9			0.5		1.7	0.8	5.0	0.3	
Delay (s)			4.5			0.5		16.7	12.6	22.7	8.6	
Level of Service			Α			Α		В	В	С	Α	
Approach Delay (s)		4.5			0.5			16.1			12.4	
Approach LOS		Α			Α			В			В	
Intersection Summary												
HCM 2000 Control Delay			10.5	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity r	atio		0.76			2.2.0.						
Actuated Cycle Length (s)			65.0	S	um of los	t time (s)			8.0			
Intersection Capacity Utilization			82.9%			of Service)		E			
Analysis Period (min)			15			2. 00. 1100			_			
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	*5	4	74				34, 46	44			44	ř
Volume (vph)	397	0	110	0	0	0	570	576	0	0	1002	613
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.91	0.95				0.97	0.95			0.95	1.00
Frt	1.00	0.99	0.85				1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1605	1504				3433	3539			3539	1583
Flt Permitted	0.95	0.95	1.00				0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1605	1504				3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	432	0	120	0	0	0	620	626	0	0	1089	666
RTOR Reduction (vph)	0	56	89	0	0	0	0	0	0	0	0	292
Lane Group Flow (vph)	225	163	19	0	0	0	620	626	0	0	1089	374
Turn Type	Split	NA	Perm				Prot	NA			NA	Perm
Protected Phases	4	4					5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	14.3	14.3	14.3				19.0	57.7			34.7	34.7
Effective Green, g (s)	14.3	14.3	14.3				19.0	57.7			34.7	34.7
Actuated g/C Ratio	0.18	0.18	0.18				0.24	0.72			0.43	0.43
Clearance Time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	300	286	268				815	2552			1535	686
v/s Ratio Prot	c0.13	0.10					c0.18	0.18			c0.31	
v/s Ratio Perm			0.01									0.24
v/c Ratio	0.75	0.57	0.07				0.76	0.25			0.71	0.54
Uniform Delay, d1	31.2	30.0	27.3				28.4	3.8			18.5	16.8
Progression Factor	1.00	1.00	1.00				1.00	1.00			0.55	0.94
Incremental Delay, d2	10.1	2.7	0.1				4.2	0.2			1.1	1.2
Delay (s)	41.2	32.8	27.4				32.6	4.0			11.3	17.0
Level of Service	D	С	С				С	Α			В	Е
Approach Delay (s)		35.2			0.0			18.2			13.4	
Approach LOS		D			Α			В			В	
Intersection Summary												
HCM 2000 Control Delay			18.5	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	acity ratio		0.73									
Actuated Cycle Length (s)			80.0		um of los				12.0			
Intersection Capacity Utiliza	ation		66.1%	IC	U Level	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT	4	ļ	-	/	†	•	•	•	•	\rightarrow	→	۶	
Volume (vph) 0 0 0 524 0 541 347 627 0 0 1091 Ideal Flow (vphpl) 1900 19	SBR	SBT	SBL	NBR	NBT	NBL	WBR	WBT	WBL	EBR	EBT	EBL	Movement
Ideal Flow (vphpl) 1900 4.0 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 1.00 1.00 1.00 1.00 1.00<	ř	44			44	140	74	4	Jal.				
Total Lost time (s) 4.0	558	1091	0		627	347	541	0	524		0	0	Volume (vph)
Lane Util. Factor 0.95 0.91 0.95 1.00 0.95 0.95 Frt 1.00 0.92 0.85 1.00 1.00 1.00 Flt Protected 0.95 0.98 1.00 0.95 1.00 1.00 Satd. Flow (prot) 1681 1519 1504 1770 3539 3539 Flt Permitted 0.95 0.98 1.00 0.95 1.00 1.00 Satd. Flow (perm) 1681 1519 1504 1770 3539 3539	1900	1900	1900	1900		1900	1900	1900	1900	1900	1900	1900	
Frt 1.00 0.92 0.85 1.00 1.00 1.00 Fit Protected 0.95 0.98 1.00 0.95 1.00 1.00 Satd. Flow (prot) 1681 1519 1504 1770 3539 3539 Fit Permitted 0.95 0.98 1.00 0.95 1.00 1.00 Satd. Flow (perm) 1681 1519 1504 1770 3539 3539	4.0	4.0				4.0	4.0	4.0	4.0				Total Lost time (s)
Fit Protected 0.95 0.98 1.00 0.95 1.00 1.00 Satd. Flow (prot) 1681 1519 1504 1770 3539 3539 Flt Permitted 0.95 0.98 1.00 0.95 1.00 1.00 Satd. Flow (perm) 1681 1519 1504 1770 3539 3539	1.00												
Satd. Flow (prot) 1681 1519 1504 1770 3539 3539 Flt Permitted 0.95 0.98 1.00 0.95 1.00 1.00 Satd. Flow (perm) 1681 1519 1504 1770 3539 3539	0.85						0.85	0.92					
Flt Permitted 0.95 0.98 1.00 0.95 1.00 1.00 Satd. Flow (perm) 1681 1519 1504 1770 3539 3539	1.00												Flt Protected
Satd. Flow (perm) 1681 1519 1504 1770 3539 3539	1583	3539			3539	1770	1504	1519					Satd. Flow (prot)
	1.00	1.00			1.00	0.95	1.00	0.98	0.95				Flt Permitted
Peak-hour factor PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	1583	3539			3539	1770	1504	1519	1681				Satd. Flow (perm)
	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	Peak-hour factor, PHF
Adj. Flow (vph) 0 0 0 570 0 588 377 682 0 0 1186	607	1186	0	0	682	377	588	0	570	0	0	0	Adj. Flow (vph)
RTOR Reduction (vph) 0 0 0 0 58 200 0 0 0 0 0	391	0	0	0	0	0	200	58	0	0	0	0	RTOR Reduction (vph)
Lane Group Flow (vph) 0 0 0 399 331 170 377 682 0 0 1186	216	1186	0	0	682	377	170	331	399	0	0	0	Lane Group Flow (vph)
Turn Type Split NA Perm Prot NA NA	Perm	NA			NA	Prot	Perm	NA	Split				Turn Type
Protected Phases 8 8 5 2 6		6			2	5		8	8				Protected Phases
Permitted Phases 8	6						8						Permitted Phases
Actuated Green, G (s) 20.9 20.9 18.6 51.1 28.5	28.5	28.5			51.1	18.6	20.9	20.9	20.9				Actuated Green, G (s)
Effective Green, g (s) 20.9 20.9 18.6 51.1 28.5	28.5	28.5			51.1	18.6	20.9	20.9	20.9				Effective Green, g (s)
Actuated g/C Ratio 0.26 0.26 0.26 0.23 0.64 0.36	0.36	0.36			0.64	0.23	0.26	0.26	0.26				Actuated g/C Ratio
Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0	4.0	4.0			4.0	4.0	4.0	4.0	4.0				Clearance Time (s)
Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0	3.0	3.0			3.0	3.0	3.0	3.0	3.0				Vehicle Extension (s)
Lane Grp Cap (vph) 439 396 392 411 2260 1260	563	1260			2260	411	392	396	439				Lane Grp Cap (vph)
v/s Ratio Prot c0.24 0.22 c0.21 0.19 c0.34		c0.34			0.19	c0.21		0.22	c0.24				v/s Ratio Prot
v/s Ratio Perm 0.11	0.14						0.11						v/s Ratio Perm
v/c Ratio 0.91 0.84 0.43 0.92 0.30 0.94	0.38	0.94			0.30	0.92	0.43	0.84	0.91				v/c Ratio
Uniform Delay, d1 28.6 27.9 24.6 29.9 6.5 24.9	19.2	24.9			6.5	29.9	24.6	27.9	28.6				Uniform Delay, d1
Progression Factor 1.00 1.00 1.00 1.21 0.95 0.84	0.50												Progression Factor
Incremental Delay, d2 22.3 14.2 0.8 23.7 0.3 12.5	1.6	12.5											Incremental Delay, d2
Delay (s) 50.9 42.2 25.4 59.8 6.5 33.4	11.2	33.4			6.5	59.8	25.4	42.2	50.9				Delay (s)
Level of Service D D C E A C	В	•				Е	С		D				
Approach Delay (s) 0.0 39.8 25.5 25.9								39.8			0.0		
Approach LOS A D C C		С			С			D			Α		Approach LOS
Intersection Summary													Intersection Summary
HCM 2000 Control Delay 29.8 HCM 2000 Level of Service C				С		Service	Level of S	CM 2000	Н	29.8			HCM 2000 Control Delay
HCM 2000 Volume to Capacity ratio 0.92										0.92		ty ratio	HCM 2000 Volume to Capacit
Actuated Cycle Length (s) 80.0 Sum of lost time (s) 12.0				12.0			time (s)	ım of los	Sı	80.0			Actuated Cycle Length (s)
Intersection Capacity Utilization 83.8% ICU Level of Service E				Е			of Service	U Level	IC	83.8%		on	
Analysis Period (min) 15													
c Critical Lane Group										15			Analysis Period (min)

	•	•	†	/	-	↓			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	75	PF.	† 1»		19				
Volume (vph)	163	157	1006	161	1	1486			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95			
Frt	1.00	0.85	0.98		1.00	1.00			
Flt Protected	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (prot)	1770	1583	3466		1770	3539			
Flt Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	1770	1583	3466		1770	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	177	171	1093	175	1	1615			
RTOR Reduction (vph)	0	140	12	0	0	0			
Lane Group Flow (vph)	177	31	1256	0	1	1615			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8							
Actuated Green, G (s)	13.2	13.2	54.0		0.8	58.8			
Effective Green, g (s)	13.2	13.2	54.0		0.8	58.8			
Actuated g/C Ratio	0.16	0.16	0.68		0.01	0.73			
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	292	261	2339		17	2601			
v/s Ratio Prot	c0.10		0.36		0.00	c0.46			
v/s Ratio Perm		0.02							
v/c Ratio	0.61	0.12	0.54		0.06	0.62			
Uniform Delay, d1	31.0	28.4	6.6		39.2	5.2			
Progression Factor	1.00	1.00	1.13		1.00	1.00			
Incremental Delay, d2	3.5	0.2	0.8		1.5	1.1			
Delay (s)	34.5	28.6	8.3		40.7	6.3			
Level of Service	С	С	Α		D	Α			
Approach Delay (s)	31.6		8.3			6.3			
Approach LOS	С		Α			Α			
Intersection Summary									
HCM 2000 Control Delay			9.8	Н	CM 2000	Level of Servi	ce	Α	
HCM 2000 Volume to Capa	acity ratio		0.65						
Actuated Cycle Length (s)			80.0		um of los			12.0	
Intersection Capacity Utiliz	ation		56.8%	10	CU Level	of Service		В	
Analysis Period (min)			15						
c Critical Lane Group									

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Dixon Ranch 23: Harvard Way & Silva Valley Pkwy.

Lane Configurations		۶	→	\rightarrow	•	←	•	1	†	/	-	ţ	4
Volume (vph)	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (yphpl)	Lane Configurations	7	44		14	47		Jal.	44	il.	1	1	
Total Lost time (s)	Volume (vph)	159	80	143	439	220		144	534	211	160		246
Lane Util. Factor 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 Fit 1.00 0.90 1.00 0.91 1.00 1.00 0.85 1.00 0.96 Fit 1.00 0.90 1.00 0.91 1.00 1.00 0.85 1.00 0.96 Fit Protected 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 Satd. Flow (prot) 1770 3199 1770 3215 1770 3539 1583 1770 3389 Fit Permitted 0.95 1.00 0.95 1.00 0.95 1.00 1.00 0.95 1.00 Satd. Flow (perm) 1770 3199 1770 3215 1770 3539 1583 1770 3389 Fit Permitted 0.95 1.00 0.95 1.00 0.95 1.00 1.00 0.95 1.00 Satd. Flow (perm) 1770 3199 1770 3215 1770 3539 1583 1770 3389 Fit Permitted 1.092 0.92 0.92 0.92 0.92 0.92 0.92 0.92				1900			1900						1900
Fit Protected										5.3			
Fit Protected 0.95 1.00 0.95 1.00 0.95 1.00 1.00 1.00 0.95 1.00 Satd. Flow (prot) 1770 3199 1770 3215 1770 3539 1583 1770 3389 1Fl Permitted 0.95 1.00 0.95													
Satd. Flow (prot) 1770 3199 1770 3215 1770 3539 1583 1770 3389 FIF Permitted 0.95 1.00 0.95 0.95 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Frt	1.00	0.90		1.00	0.91		1.00	1.00	0.85	1.00	0.96	
Fit Permitted 0.95 1.00 0.95 1.00 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Flt Protected												
Satd. Flow (perm) 1770 3199 1770 3215 1770 3539 1583 1770 3389 Peak-hour factor, PHF 0.92											1770		
Peak-hour factor, PHF 0.92 14 0.82 2 7 4 0.83 0.93 0.30 0.90 0.92	Flt Permitted	0.95	1.00								0.95		
Adj. Flow (vph) 173 87 155 477 239 376 157 580 229 174 679 26 RTOR Reduction (vph) 0 134 0 0 212 0 0 0 159 0 40 Lane Group Flow (vph) 173 108 0 477 403 0 157 580 70 174 906 Turn Type Prot NA Prot NA Prot NA Prot NA Perm Prot NA Protected Phases 7 4 3 8 5 2 1 1 6 Permitted Phases 7 4 3 8 5 2 1 1 6 Permitted Phases 8 7 4 3 8 5 2 1 1 6 Permitted Phases 8 7 4 20.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Effective Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 20.3 20.1 20.0 20.0 20.0 20.0 20.0 20.0 20.0	Satd. Flow (perm)	1770	3199		1770	3215		1770	3539	1583	1770	3389	
RTOR Reduction (vph) 0 134 0 0 212 0 0 159 0 40 Lane Group Flow (vph) 173 108 0 477 403 0 157 580 70 174 906 Turn Type Prot NA Prot NA Prot NA Perm Prot NA Permitted Phases 2 1 6 6 2 1 6 Permitted Phases 2 2 2 6 8.0 27.5 6 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Effective Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Effective Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Effective Green, g (s) 13.2 12.0 22.1 20	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 173 108 0 477 403 0 157 580 70 174 906 Turn Type Prot NA Prot NA Prot NA Prot NA Perm Prot NA Protected Phases 7 4 3 8 5 2 1 6 Permitted Phases 2 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Effective Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated g/C Ratio 0.15 0.14 0.25 0.24 0.08 0.30 0.30 0.09 0.32 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 <td>Adj. Flow (vph)</td> <td>173</td> <td></td> <td>155</td> <td>477</td> <td></td> <td>376</td> <td>157</td> <td>580</td> <td>229</td> <td>174</td> <td>679</td> <td>267</td>	Adj. Flow (vph)	173		155	477		376	157	580	229	174	679	267
Turn Type	RTOR Reduction (vph)	0	134	0	0	212	0	0	0	159	0	40	0
Protected Phases 7 4 3 8 5 2 1 6 Permitted Phases 2 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Effective Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated Green, G (s) 13.2 12.0 22.1 20.9 0.30 0.09 0.30 0.09 0.30 0.09 0.32 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 Actuated Green, G (s) 13.2 12.0 20.9 0.30 0.09 0.30 0.09 0.30 0.09 0.32 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 4.0 5.3 Actuated Green, G (s) 13.2 12.0 20.9 0.30 0.09 0.30 0.09 0.32 Clearance Time (s) 4.0 5.3 4.0	Lane Group Flow (vph)	173	108	0	477	403	0	157	580	70	174	906	0
Permitted Phases	Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Actuated Green, G (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Effective Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated g/C Ratio 0.15 0.14 0.25 0.24 0.08 0.30 0.30 0.09 0.32 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Protected Phases	7	4		3	8		5	2		1	6	
Effective Green, g (s) 13.2 12.0 22.1 20.9 7.0 26.5 26.5 8.0 27.5 Actuated g/C Ratio 0.15 0.14 0.25 0.24 0.08 0.30 0.30 0.09 0.32 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Permitted Phases									2			
Actuated g/C Ratio 0.15 0.14 0.25 0.24 0.08 0.30 0.30 0.09 0.32 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Actuated Green, G (s)	13.2	12.0		22.1	20.9		7.0	26.5	26.5	8.0	27.5	
Clearance Time (s)	Effective Green, g (s)	13.2	12.0		22.1	20.9		7.0	26.5	26.5	8.0	27.5	
Vehicle Extension (s) 3.0	Actuated g/C Ratio	0.15	0.14		0.25	0.24		0.08	0.30	0.30	0.09	0.32	
Lane Grp Cap (vph) 267 440 448 770 142 1075 481 162 1068 vls Ratio Prot 0.10 0.03 c0.27 v0.13 0.09 0.16 c0.10 c0.27 vls Ratio Prot 0.10 0.05 c1.06 0.27 vls Ratio Prot vlc Ratio 0.65 0.25 1.06 0.52 1.11 0.54 0.14 1.07 0.85 Uniform Delay, d1 34.8 33.6 32.5 28.8 40.1 25.3 22.1 39.6 27.9 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
\(\text{v/s Ratio Prot } \) 0.10 \) 0.03 \) \(\text{c0.27 \) c0.13 \) 0.09 \) 0.16 \\ \text{c0.10 \} \) c0.27 \\(\text{v/s Ratio Perm } \) \(\text{v/s Ratio Perm } \) \(\text{v/s Ratio Perm } \) \(\text{v/s Ratio } \) \(\text{0.04} \) \(\text{v/s Ratio } \) \(\text{0.05} \) \(\text{0.11 \} \) 0.52 \) \(\text{1.11 \} \) 0.54 \(\text{0.14 \} \) 1.07 \(\text{0.85 \} \) \(\text{Uniform Delay, d1} \) 34.8 \(\text{33.6} \) 33.6 \(\text{33.25} \) 28.8 \(\text{40.1} \) 25.3 \(\text{22.1} \) 39.6 \(\text{27.9} \) \(\text{Progression Factor} \) 1.00 \(\text{1.00} \) 1.00 \(\text{1.00} \) 1.00 \(\text{1.00} \) 1.00 \(\text{1.00 \} \) 1.00 \(1.	Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
\(\text{V/s Ratio Perm} \) \(\text{V/c Ratio} \) \(\text{Ratio Defm} \) \(\text{V/c Ratio} \) \(0.65 \) \(0.25 \) \(1.06 \) \(0.52 \) \(1.11 \) \(0.54 \) \(0.14 \) \(1.07 \) \(0.85 \) \(0.85 \) \(0.100 \) \(0.85 \) \(0.11 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.14 \) \(0.10 \) \(0.100 \) \(0.100 \) \(1.00 \	Lane Grp Cap (vph)	267	440		448	770		142	1075	481	162	1068	
v/c Ratio 0.65 0.25 1.06 0.52 1.11 0.54 0.14 1.07 0.85 Uniform Delay, d1 34.8 33.6 32.5 28.8 40.1 25.3 22.1 39.6 27.9 Progression Factor 1.00	v/s Ratio Prot	0.10	0.03		c0.27	c0.13		0.09	0.16		c0.10	c0.27	
Uniform Delay, d1 34.8 33.6 32.5 28.8 40.1 25.3 22.1 39.6 27.9 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	v/s Ratio Perm									0.04			
Progression Factor 1.00 <td>v/c Ratio</td> <td>0.65</td> <td>0.25</td> <td></td> <td>1.06</td> <td>0.52</td> <td></td> <td>1.11</td> <td>0.54</td> <td>0.14</td> <td>1.07</td> <td>0.85</td> <td></td>	v/c Ratio	0.65	0.25		1.06	0.52		1.11	0.54	0.14	1.07	0.85	
Incremental Delay, d2 5.3 0.3 60.8 0.6 106.7 0.5 0.1 91.8 6.4	Uniform Delay, d1	34.8	33.6		32.5	28.8		40.1	25.3	22.1	39.6	27.9	
Delay (s) 40.1 33.9 93.3 29.5 146.8 25.8 22.2 131.4 34.3 Level of Service D C F C F C C F C Approach Delay (s) 36.5 57.4 44.6 49.4 Approach LOS D E D D Intersection Summary HCM 2000 Control Delay 49.0 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.92	Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Level of Service D C F C F C C F C Approach Color of Service D	Incremental Delay, d2	5.3	0.3		60.8	0.6		106.7	0.5	0.1	91.8	6.4	
Approach Delay (s) 36.5 57.4 44.6 49.4 Approach LOS D E D D Intersection Summary HCM 2000 Control Delay 49.0 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.92	Delay (s)	40.1	33.9		93.3	29.5		146.8	25.8	22.2	131.4	34.3	
Approach LOS D E D D Intersection Summary HCM 2000 Control Delay 49.0 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.92	Level of Service	D	С		F	С		F	С	С	F	С	
HCM 2000 Control Delay	Approach Delay (s)		36.5			57.4			44.6			49.4	
HCM 2000 Control Delay 49.0 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.92	Approach LOS		D			Е			D			D	
HCM 2000 Volume to Capacity ratio 0.92	Intersection Summary												
	HCM 2000 Control Delay			49.0	Н	CM 2000	Level of	Service		D			
	HCM 2000 Volume to Capa	city ratio		0.92									
Actuated Cycle Length (s) 87.2 Sum of lost time (s) 18.6	Actuated Cycle Length (s)			87.2	S	um of los	t time (s)			18.6			
Intersection Capacity Utilization 81.3% ICU Level of Service D		ition		81.3%	10	CU Level	of Service)		D			
Analysis Period (min) 15													
c Critical Lane Group	c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J.	4	54,	Jac.	7.		,tc	10		Ja.	4	7
Volume (vph)	98	127	315	124	73	11	589	323	51	41	292	372
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1826		1770	1825		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1826		1770	1825		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	107	138	342	135	79	12	640	351	55	45	317	404
RTOR Reduction (vph)	0	0	292	0	6	0	0	6	0	0	0	312
Lane Group Flow (vph)	107	138	50	135	85	0	640	400	0	45	317	92
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	9.6	12.6	12.6	7.0	10.0		32.8	47.7		3.4	18.3	18.3
Effective Green, g (s)	9.6	12.6	12.6	7.0	10.0		32.8	47.7		3.4	18.3	18.3
Actuated g/C Ratio	0.11	0.15	0.15	0.08	0.12		0.38	0.55		0.04	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	195	270	230	142	210		669	1004		69	393	334
v/s Ratio Prot	0.06	c0.07		c0.08	0.05		c0.36	0.22		0.03	c0.17	
v/s Ratio Perm			0.03									0.06
v/c Ratio	0.55	0.51	0.22	0.95	0.40		0.96	0.40		0.65	0.81	0.27
Uniform Delay, d1	36.5	34.2	32.7	39.7	35.6		26.3	11.2		41.1	32.5	28.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.1	1.6	0.5	60.4	1.3		24.3	0.3		20.0	11.5	0.4
Delay (s)	39.6	35.8	33.2	100.1	36.9		50.6	11.5		61.0	44.0	29.1
Level of Service	D	D	С	F	D		D	В		Е	D	С
Approach Delay (s)		35.0			74.6			35.4			37.1	
Approach LOS		С			Е			D			D	
Intersection Summary												
HCM 2000 Control Delay			39.2	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capac	city ratio		0.84									
Actuated Cycle Length (s)			86.7	S	um of los	t time (s)			16.0			
Intersection Capacity Utilizat	tion		74.9%	IC	U Level	of Service	•		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			40			44	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	35	1	83	198	2	130	20	266	56	44	368	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	1	90	215	2	141	22	289	61	48	400	21
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	129	359	372	468								
Volume Left (vph)	38	215	22	48								
Volume Right (vph)	90	141	61	21								
Hadj (s)	-0.33	-0.08	-0.05	0.03								
Departure Headway (s)	7.7	7.0	6.8	6.7								
Degree Utilization, x	0.28	0.70	0.71	0.87								
Capacity (veh/h)	398	475	487	522								
Control Delay (s)	13.6	24.8	24.7	39.6								
Approach Delay (s)	13.6	24.8	24.7	39.6								
Approach LOS	В	С	С	Ε								
Intersection Summary												
Delay			28.9									
Level of Service			D									
Intersection Capacity Utilization	ation		67.2%	IC	U Level	of Service			С			
Analysis Period (min)			15									

	-	•	•	←	1	~
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			ተ		严
Volume (veh/h)	352	39	0	867	0	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	383	42	0	942	0	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				766		
pX, platoon unblocked					0.67	
vC, conflicting volume			425		1346	404
vC1, stage 1 conf vol			,			
vC2, stage 2 conf vol						
vCu, unblocked vol			425		1270	404
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 aueue free %			100		100	96
cM capacity (veh/h)			1134		124	647
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	425	942	23			
Volume Left	0	942	0			
Volume Right	42	0	23			
cSH	1700	1700	647			
Volume to Capacity	0.25	0.55	0.04			
	0.25	0.55	0.04			
Queue Length 95th (ft)		0.0	10.8			
Control Delay (s) Lane LOS	0.0	0.0	10.8 B			
	0.0	0.0	10.8			
			10.8			
	0.0	0.0				
Approach Delay (s) Approach LOS	0.0	0.0	В			
Approach LOS Intersection Summary	0.0	0.0	_			
Approach LOS Intersection Summary Average Delay		0.0	0.2			
Approach LOS Intersection Summary		0.0	_	IC	CU Level (of Service

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Lane Configurations

Volume (vph)

Ideal Flow (vphpl)

Total Lost time (s)

Lane Util. Factor

Satd. Flow (prot)

Satd. Flow (perm)

Adj. Flow (vph)

Turn Type

Peak-hour factor, PHF

RTOR Reduction (vph)

Lane Group Flow (vph)

Actuated Green, G (s)

Effective Green, g (s)

Actuated g/C Ratio

Clearance Time (s)

Vehicle Extension (s)

Lane Grp Cap (vph)

v/s Ratio Prot

v/c Ratio

v/s Ratio Perm

Protected Phases Permitted Phases

Flt Protected

Flt Permitted

EBL

46,34

1900

4.0

0.97

1.00

0.95

3433

0.95

3433

0.92

463

463 1086

Prot

13.1

13.1

0.16

4.0

3.0

534 1249

c0.13 c0.31

0

1900

5.7

0.95

1.00

1.00

3539

1.00

3539

0.92

0 221

NA Perm

29.7

29.7

0.35

5.7

3.0

1900

5.7

1.00

0.85

1.00

1583

1.00

1583

0.92

341

120

2

29.7

29.7

0.35

5.7

3.0

559

0.08

0.22

150

1900

4.0

1.00

1.00

0.95

1770

0.95

1770

0.92

163

163

Prot

9.1

9.1

0.11

4.0

3.0

191

0.09

0.85

0

1900

5.7

0.95

1.00

1.00

3539

1.00

3539

0.92

650

650

NA Perm

25.7

25.7

0.31

5.7

3.0

1081

0.18

0.60

0

1900

5.7

1.00

0.85

1.00

1583

1.00

1583

0.92

51

23

6

25.7

25.7

0.31

5.7

3.0

483

0.01

0.05

EPAP+PP PM Peak

210

1900

4.5

1.00

1.00

1.00

1863

1.00

1863

0.92

228

228

NA Perm

15.3

15.3

0.18

4.5

3.0

338

0 178

200

1900

4.5

1.00

0.85

1.00

1583

1.00

1583

0.92

217

39

15.3

15.3

0.18

4.5

3.0

287

0.02

0.14

105

4.0

1.00

1.00

0.95

1770

0.95

1770

0.92

Prot

7.0

7.0

0.08

4.0

3.0

147

0.06 c0.12

0.78 0.67

1900

410

252

1900

0.95

0.99

1.00

3506

1.00

3506

0.92

274

287

NA

20.1

20.1

0.24

4.5

837

0.08

0.34

5

4.5

1900

0.92

18 114

0

0 114

348

4.0

0.97

1.00

0.95

3433

0.95

3433

0.92

378

378

Prot

11.8

11.8

0.14

4.0

481

c0.11

0.79

0

1900

Dixon Ranch
2: El Dorado Hills Blvd. & Green Valley Rd.

		•	•	₹	-	_	7	ı		*	+	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	To.		Jal.	7.		jąć.	To			4	7
Volume (vph)	138	1063	24	69	630	96	55	214	122	65	101	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (prot)	1770	1857		1770	1826		1770	1761			1827	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (perm)	1770	1857		1770	1826		1770	1761			1827	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	1155	26	75	685	104	60	233	133	71	110	118
RTOR Reduction (vph)	0	0	0	0	4	0	0	14	0	0	0	102
Lane Group Flow (vph)	150	1181	0	75	785	0	60	352	0	0	181	16
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	13.7	77.5		4.5	68.3		22.0	22.0			19.2	19.2
Effective Green, g (s)	13.7	77.5		4.5	68.3		22.0	22.0			19.2	19.2
Actuated g/C Ratio	0.10	0.55		0.03	0.48		0.15	0.15			0.14	0.14
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
Lane Grp Cap (vph)	170	1012		56	877		273	272			246	213
v/s Ratio Prot	0.08	c0.64		c0.04	0.43		0.03	c0.20			c0.10	
v/s Ratio Perm												0.01
v/c Ratio	0.88	1.17		1.34	0.90		0.22	1.29			0.74	0.07
Uniform Delay, d1	63.5	32.3		68.8	33.7		52.6	60.1			59.1	53.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	37.4	85.8		235.1	12.4		0.7	156.4			12.2	0.3
Delay (s)	100.9	118.2		303.9	46.1		53.3	216.5			71.3	54.0
Level of Service	F	F		F	D		D	F			Е	D
Approach Delay (s)		116.2			68.4			193.5			64.5	
Approach LOS		F			Е			F			Е	
Intersection Summary												
HCM 2000 Control Delay			108.1	H	CM 2000	Level of S	Service		F			
HCM 2000 Volume to Capa	city ratio		1.13									
Actuated Cycle Length (s)			142.2		um of los				19.0			
Intersection Capacity Utiliza	tion	•	105.1%	IC	U Level	of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

Uniform Delay, d1	34.6	25.4	19.0	36.8	24.8	20.6	34.9	26.5		37.8	32.1	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	13.9	6.7	0.2	29.0	0.9	0.0	8.2	0.2		22.1	5.2	0.2
Delay (s)	48.5	32.1	19.2	65.8	25.8	20.6	43.2	26.8		59.9	37.3	29.1
Level of Service	D	С	В	Е	С	С	D	С		Е	D	С
Approach Delay (s)		33.8			32.7			36.0			38.7	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			34.6	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.83									
Actuated Cycle Length (s)	·		84.1	Sı	um of lost	time (s)			18.2			
Intersection Capacity Utiliz	ation		72.1%	IC	U Level o	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	35	4	28'	JH.	7.		Jac.	1.			44	
Volume (vph)	9	856	382	118	505	3	282	18	197	2	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1863	1583	1770	1861		1770	1607			1789	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1863	1583	1770	1861		1770	1607			1789	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	930	415	128	549	3	307	20	214	2	10	4
RTOR Reduction (vph)	0	0	110	0	0	0	0	170	0	0	4	0
Lane Group Flow (vph)	10	930	305	128	552	0	307	64	0	0	12	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6									
Actuated Green, G (s)	0.7	48.7	48.7	5.0	53.0		19.5	19.5			2.5	
Effective Green, q (s)	0.7	48.7	48.7	5.0	53.0		19.5	19.5			2.5	
Actuated g/C Ratio	0.01	0.52	0.52	0.05	0.56		0.21	0.21			0.03	
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Vehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
Lane Grp Cap (vph)	13	965	820	94	1049		367	333			47	
v/s Ratio Prot	0.01	c0.50		c0.07	0.30		c0.17	0.04			c0.01	
v/s Ratio Perm			0.19									
v/c Ratio	0.77	0.96	0.37	1.36	0.53		0.84	0.19			0.26	
Uniform Delay, d1	46.6	21.8	13.5	44.5	12.7		35.7	30.8			44.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	124.9	20.5	0.3	216.9	0.5		14.9	0.2			2.1	
Delay (s)	171.5	42.3	13.8	261.4	13.2		50.6	31.0			47.0	
Level of Service	F	D	В	F	В		D	С			D	
Approach Delay (s)		34.6			59.9			42.1			47.0	
Approach LOS		С			Е			D			D	
Intersection Summary												
HCM 2000 Control Delay			42.9	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	acity ratio		0.93			2.2.0.						
Actuated Cycle Length (s)	,		94.0	S	um of los	t time (s)			18.3			
Intersection Capacity Utiliza	ation		85.8%			of Service)		E			
Analysis Period (min)			15									
c Critical Lane Group												

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			4	19	ř
Volume (veh/h)	1044	27	4	592	21	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1135	29	4	643	23	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1164		1802	1149
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1164		1802	1149
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		74	98
cM capacity (veh/h)			600		87	241
, , ,	ED 4	WD 4	ND 4	ND 0		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	1164	648	23	4		
Volume Left	0	4	23	0		
Volume Right	29	0	0	4		
cSH	1700	600	87	241		
Volume to Capacity	0.68	0.01	0.26	0.02		
Queue Length 95th (ft)	0	1	24	1		
Control Delay (s)	0.0	0.2	60.6	20.2		
Lane LOS		Α	F	С		
Approach Delay (s)	0.0	0.2	54.1			
Approach LOS			F			
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utili	zation		66.6%	IC	U Level	of Service
Analysis Period (min)			15			

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	•	→	+	•	/	4
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	To		44	
Volume (veh/h)	31	1017	577	12	8	19
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	1105	627	13	9	21
Pedestrians	0.	1100	02.			
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	640				1807	634
vC1, stage 1 conf vol	010				1001	001
vC2, stage 2 conf vol						
vCu, unblocked vol	640				1807	634
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					0.1	0.2
tF (s)	2.2				3.5	3.3
p0 queue free %	96				90	96
cM capacity (veh/h)	944				84	479
Direction, Lane #	EB 1	WB 1	SB 1		01	110
Volume Total	1139	640	29			
Volume Left	34	040	9			
	0	13	21			
Volume Right	944					
cSH	0.04	1700 0.38	200 0.15			
Volume to Capacity						
Queue Length 95th (ft)	3	0	13			
Control Delay (s)	1.2	0.0	26.1			
Lane LOS	A		D			
Approach Delay (s)	1.2	0.0	26.1			
Approach LOS			D			
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utiliz	zation		88.5%	IC	U Level of	of Service
Analysis Period (min)			15			

	•	→	←	•	-	4
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		ৰ্	12		gla	
Volume (veh/h)	12	1041	588	5	10	14
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	1132	639	5	11	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	645				1799	642
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	645				1799	642
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				87	97
cM capacity (veh/h)	941				87	474
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	1145	645	26			
Volume Left	13	0	11			
Volume Right	0	5	15			
cSH	941	1700	166			
Volume to Capacity	0.01	0.38	0.16			
Queue Length 95th (ft)	1	0	14			
Control Delay (s)	0.5	0.0	30.8			
Lane LOS	Α		D			
Approach Delay (s)	0.5	0.0	30.8			
Approach LOS			D			
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utili	zation		74.4%	IC	U Level	of Service
Analysis Period (min)			15			

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7. Deer valley Rd.	a Oicc	ii vand	Jy i Ku.									
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	75	T.		Jal.	14			449			4	
Volume (veh/h)	45	771	18	39	486	7	8	1	23	7	0	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	838	20	42	528	8	9	1	25	8	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	536			858			1574	1566	848	1578	1572	53
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	536			858			1574	1566	848	1578	1572	532
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			95			89	99	93	90	100	97
cM capacity (veh/h)	1032			783			80	100	361	76	99	547
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	49	858	42	536	35	23						
Volume Left	49	0	42	0	9	8						
Volume Right	0	20	0	8	25	15						
cSH	1032	1700	783	1700	184	178						
Volume to Capacity	0.05	0.50	0.05	0.32	0.19	0.13						
Queue Length 95th (ft)	4	0	4	0	17	11						
Control Delay (s)	8.7	0.0	9.9	0.0	29.0	28.2						
Lane LOS	Α		Α		D	D						
Approach Delay (s)	0.5		0.7		29.0	28.2						
Approach LOS					D	D						
Intersection Summary												
Average Delay	-		1.6									
Intersection Capacity Utiliza	ation		51.7%	IC	CU Level	of Service			Α			
Analysis Period (min)			15									

	→	\rightarrow	•	←	4	<i>></i>	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1>			4	gla		
Volume (vph)	714	121	29	460	79	17	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0			4.0	4.0		
Lane Util. Factor	1.00			1.00	1.00		
Frt	0.98			1.00	0.98		
Flt Protected	1.00			1.00	0.96		
Satd. Flow (prot)	1826			1857	1747		
Flt Permitted	1.00			0.93	0.96		
Satd. Flow (perm)	1826			1739	1747		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	776	132	32	500	86	18	
RTOR Reduction (vph)	10	0	0	0	14	0	
Lane Group Flow (vph)	898	0	0	532	90	0	
Turn Type	NA		Perm	NA	NA		
Protected Phases	4			8	2		
Permitted Phases			8				
Actuated Green, G (s)	27.3			27.3	8.0		
Effective Green, g (s)	27.3			27.3	8.0		
Actuated g/C Ratio	0.63			0.63	0.18		
Clearance Time (s)	4.0			4.0	4.0		
Vehicle Extension (s)	3.0			3.0	3.0		
Lane Grp Cap (vph)	1151			1096	322		
v/s Ratio Prot	c0.49				c0.05		
v/s Ratio Perm				0.31			
v/c Ratio	0.78			0.49	0.28		
Uniform Delay, d1	5.8			4.3	15.2		
Progression Factor	1.00			1.00	1.00		
Incremental Delay, d2	3.5			0.3	0.5		
Delay (s)	9.3			4.6	15.7		
Level of Service	Α			Α	В		
Approach Delay (s)	9.3			4.6	15.7		
Approach LOS	Α			Α	В		
Intersection Summary							
HCM 2000 Control Delay			8.1	H	CM 2000	Level of Service	
HCM 2000 Volume to Capa	city ratio		0.67				
Actuated Cycle Length (s)			43.3		um of lost	(-)	
Intersection Capacity Utiliza	tion		60.1%	IC	U Level o	of Service	
Analysis Period (min)			15				
c Critical Lane Group							

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Dixon Ranch 10: Cambridge Rd. & Green Valley Rd.

1900

4.0 1.00 0.93 0.98 1701 0.98 1701

0.92 14

12 NA

2.4 2.4 0.03 4.0 3.0 58

1900

1900

0.92

0

1900

0.92

Split

	•	→	•	•	—	•	•	†
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT
Lane Configurations	7	T.		,Ac	Tr.		140	14
Volume (vph)	27	671	165	46	375	8	113	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.97		1.00	1.00		1.00	0.86
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)	1770	1808		1770	1857		1770	1597
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (perm)	1770	1808		1770	1857		1770	1597
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	729	179	50	408	9	123	4
RTOR Reduction (vph)	0	7	0	0	0	0	0	70
Lane Group Flow (vph)	29	901	0	50	417	0	123	13
Turn Type	Prot	NA		Prot	NA		Split	NA
Protected Phases	7	4		3	8		2	2
Permitted Phases								
Actuated Green, G (s)	1.6	41.0		2.1	41.5		8.2	8.2
Effective Green, g (s)	1.6	41.0		2.1	41.5		8.2	8.2
Actuated g/C Ratio	0.02	0.59		0.03	0.60		0.12	0.12
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	40	1063		53	1105		208	187
v/s Ratio Prot	0.02	c0.50		c0.03	0.22		c0.07	0.01
v/s Ratio Perm								
v/c Ratio	0.72	0.85		0.94	0.38		0.59	0.07
Uniform Delay, d1	33.8	11.8		33.7	7.4		29.2	27.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	48.4	6.4		102.1	0.2		4.5	0.2
Delay (s)	82.3	18.2		135.9	7.6		33.6	27.5
Level of Service	F	В		F	Α		С	C
Approach Delay (s)		20.2			21.3			31.2
Approach LOS		С			С			C
Intersection Summary								
HCM 2000 Control Delay			22.1	Н	CM 2000	Level of	Service	
HCM 2000 Volume to Capac	city ratio		0.78					
Actuated Cycle Length (s)	-		69.7	S	um of los	t time (s)		
Intersection Capacity Utilizat	tion		64.9%	IC	U Level	of Service	9	
Analysis Period (min)			15					
o Critical Lana Group								

v/s Ratio Prot	0.02	c0.50		c0.03	0.22	c0.07	0.01		c0.01
v/s Ratio Perm									
v/c Ratio	0.72	0.85		0.94	0.38	0.59	0.07		0.22
Uniform Delay, d1	33.8	11.8		33.7	7.4	29.2	27.4		32.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	48.4	6.4		102.1	0.2	4.5	0.2		1.9
Delay (s)	82.3	18.2		135.9	7.6	33.6	27.5		34.6
Level of Service	F	В		F	Α	С	С		С
Approach Delay (s)		20.2			21.3		31.2		34.6
Approach LOS		С			С		С		С
Intersection Summary									
HCM 2000 Control Delay			22.1	Н	CM 2000 Lev	vel of Service		С	
HCM 2000 Volume to Capac	city ratio		0.78						
Actuated Cycle Length (s)			69.7	Sı	um of lost tin	ne (s)		16.0	
Intersection Capacity Utilizat	ion		64.9%	IC	U Level of S	ervice		С	
Analysis Period (min)			15						
c Critical Lane Group									

Lane Configurations		۶	-	\rightarrow	•	•	•	•	†	/	-	ţ	4
Volume (vph)	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl)	Lane Configurations								4			4	
Total Lost time (s)	Volume (vph)	2	618	121	117	376	8	71	7	210	18	7	
Lane Util. Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Fit Protected	Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Fit Protected 0.95 1.00 0.95 1.00 0.96 1.00 0.98 Satd. Flow (prot) 1770 1817 1770 1857 1782 1583 1738 Fit Permitted 0.95 1.00 0.95 1.00 0.96 1.00 0.98 Satd. Flow (perm) 1770 1817 1770 1857 1782 1583 1738 Peak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92													
Satd. Flow (prot)	Frt	1.00	0.98		1.00	1.00			1.00	0.85		0.95	
Fit Permitted	Flt Protected												
Satd. Flow (perm) 1770 1817 1770 1857 1782 1583 1738 Peak-hour factor, PHF 0.92	Satd. Flow (prot)	1770	1817			1857			1782	1583			
Peak-hour factor, PHF 0.92 0.93 0.03	Flt Permitted	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Adj. Flow (vph)	Satd. Flow (perm)	1770	1817		1770	1857			1782	1583		1738	
RTOR Reduction (vph) 0 6 0 0 1 0 0 202 0 13 0 Lane Group Flow (vph) 2 798 0 127 417 0 0 85 26 0 29 0 Turn Type Prot NA Prot NA Prot NA Split NA Perm Split NA Protected Phases 7 4 3 8 2 2 6 6 Permitted Phases 7 4 3 8 2 2 6 6 Permitted Phases 7 4 3 8 7 4 3 8 7 4 3 Actuated Grean (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 4.3 4.1 4.5 2 8.7 4.3 4.3 4.1 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 </td <td>Peak-hour factor, PHF</td> <td>0.92</td>	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 2 798 0 127 417 0 0 85 26 0 29 0 Turn Type Prot NA Prot NA Split NA Perm Split NA Protected Phases 7 4 3 8 2 2 6 6 Permitted Phases	Adj. Flow (vph)	2	672	132	127	409	9	77	8	228	20		14
Turn Type	RTOR Reduction (vph)		6	0	0	1	0	0	0	202	0	13	0
Protected Phases 7 4 3 8 2 2 6 6 6 Permitted Phases 2 Actuated Green, G (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 Effective Green, g (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 Actuated g/C Ratio 0.01 0.52 0.09 0.60 0.12 0.12 0.06 Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 Vehicle Extension (s) 16 941 167 1120 206 183 99 V/S Ratio Prot 0.00 c0.44 c0.07 0.22 c0.05 c0.02 V/S Ratio Perm V/C Ratio 0.12 0.85 0.76 0.37 0.41 0.14 0.29 Uniform Delay, d1 36.8 15.5 33.1 7.6 30.7 29.8 33.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lane Group Flow (vph)	2	798	0	127	417	0	0	85	26	0	29	0
Permitted Phases	Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Actuated Green, G (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 Effective Green, g (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 Actuated g/C Ratio 0.01 0.52 0.09 0.60 0.12 0.12 0.06 Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 Lane Grp Cap (vph) 16 941 167 1120 206 183 99 v/s Ratio Prot 0.00 c0.44 c0.07 0.22 c0.05 c0.02 v/s Ratio Prot 0.01 0.05 0.04 0.07 0.22 c0.05 c0.02 v/s Ratio Perm 0.02 v/c Ratio 0.12 0.85 0.76 0.37 0.41 0.14 0.29 Uniform Delay, d1 36.8 15.5 33.1 7.6 30.7 29.8 33.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 Incremental Delay, d2 3.5 7.2 18.3 0.2 1.3 0.4 1.6 Delay (s) 40.3 22.7 51.3 7.8 32.1 30.1 35.5 Level of Service D C D A C C D Approach LoS C B C D A C C D Intersection Summary HCM 2000 Control Delay 23.0 HCM 2000 Level of Service C Analysis Period (min) 15	Protected Phases	7	4		3	8		2	2		6	6	
Effective Green, g (s) 0.7 38.8 7.1 45.2 8.7 8.7 4.3 Actuated g/C Ratio 0.01 0.52 0.09 0.60 0.12 0.12 0.06 Clearance Time (s) 4.0 2.0 2.0 2.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Permitted Phases									2			
Actuated g/C Ratio 0.01 0.52 0.09 0.60 0.12 0.12 0.06 Clearance Time (s) 4.0 3.0	Actuated Green, G (s)	0.7	38.8		7.1	45.2			8.7	8.7		4.3	
Clearance Time (s) 4.0 2.0 4.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	Effective Green, g (s)	0.7	38.8		7.1	45.2			8.7	8.7		4.3	
Vehicle Extension (s) 3.0 99 vis Ratio Prot 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Actuated g/C Ratio	0.01	0.52		0.09	0.60			0.12	0.12		0.06	
Lane Grp Cap (vph) 16 941 167 1120 206 183 99 v/s Ratio Prot 0.00 c0.44 c0.07 0.22 c0.05 c0.02 v/s Ratio Prom 0.00 v/s Ratio Prom 0.02 v/s Ratio Perm 0.02 Uniform Delay, d1 0.12 0.85 0.76 0.37 0.41 0.14 0.29 Uniform Delay, d1 36.8 15.5 33.1 7.6 30.7 29.8 33.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
\(\text{v/s Ratio Prot} \) \(0.00 \) \(\text{col.04} \) \(\text{col.07} \) \(0.22 \) \(\text{col.05} \) \(\text{col.05} \) \(\text{col.02} \) \(\text{v/s Ratio Prem} \) \(\text{col.07} \) \(0.22 \) \(\text{col.05} \) \(\text{col.05} \) \(\text{col.02} \) \(\text{v/s Ratio Prot} \) \(0.12 \) \(0.85 \) \(0.76 \) \(0.37 \) \(0.41 \) \(0.14 \) \(0.29 \) \(\text{Uniform Delay, d1} \) \(0.85 \) \(0.37 \) \(0.31 \) \(7.6 \) \(30.7 \) \(29.8 \) \(33.8 \) \(8.8 \) \(\text{Progression Factor} \) \(1.00 \) \(1.	Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
v/s Ratio Perm 0.02 v/s Ratio Derm 0.12 0.85 0.76 0.37 0.41 0.14 0.14 0.29 Uniform Delay, d1 36.8 15.5 33.1 7.6 30.7 29.8 33.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lane Grp Cap (vph)	16	941		167	1120			206	183		99	
v/c Ratio 0.12 0.85 0.76 0.37 0.41 0.14 0.29 Uniform Delay, d1 36.8 15.5 33.1 7.6 30.7 29.8 33.8 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Incremental Delay, d2 3.5 7.2 18.3 0.2 1.3 0.4 1.6 Delay (s) 40.3 22.7 51.3 7.8 32.1 30.1 35.5 Level of Service D C D A C C D Approach Delay (s) 22.7 17.9 30.7 35.5 Approach LOS C D D Intersection Summary HCM 2000 Control Delay 23.0 HCM 2000 Level of Service C C HCM 2000 Volume to Capacity ratio 0.73 Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 66.2% ICU Level of Service C	v/s Ratio Prot	0.00	c0.44		c0.07	0.22			c0.05			c0.02	
Uniform Delay, d1 36.8 15.5 33.1 7.6 30.7 29.8 33.8 Progression Factor 1.00 <t< td=""><td>v/s Ratio Perm</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.02</td><td></td><td></td><td></td></t<>	v/s Ratio Perm									0.02			
Progression Factor 1.00 35.5 2.0 1.00 2.00 1.00 1.00 1.00 35.5 2.00 D Approach Delay (s) 2.2.7 17.9 30.7 35.5 35.5 Approach LOS D D Intersection Summary Intersection Summary Intersection Summary Actuated Cycle Length (s) 0.73 Actuated Cycle Length (s) 74.9 Sum of lost time (s) <t< td=""><td>v/c Ratio</td><td>0.12</td><td>0.85</td><td></td><td>0.76</td><td>0.37</td><td></td><td></td><td>0.41</td><td>0.14</td><td></td><td>0.29</td><td></td></t<>	v/c Ratio	0.12	0.85		0.76	0.37			0.41	0.14		0.29	
Incremental Delay, d2 3.5 7.2 18.3 0.2 1.3 0.4 1.6	Uniform Delay, d1	36.8	15.5		33.1	7.6			30.7	29.8		33.8	
Delay (s) 40.3 22.7 51.3 7.8 32.1 30.1 35.5 Level of Service D C D A C C D Approach Delay (s) 22.7 17.9 30.7 35.5 Approach LOS C B C D Intersection Summary HCM 2000 Control Delay 23.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.73 Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 66.2% ICU Level of Service C Analysis Period (min) 15	Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Level of Service D C D A C C D Approach Delay (s) 22.7 17.9 30.7 35.5 Approach LOS C B C D Intersection Summary HCM 2000 Control Delay 23.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.73 Actuated Cycle Length (s) 16.0 Intersection Capacity Utilization 66.2% ICU Level of Service C Analysis Period (min) 15	Incremental Delay, d2	3.5			18.3				1.3				
Approach Delay (s) 22.7 17.9 30.7 35.5 Approach LOS C B C D Intersection Summary HCM 2000 Control Delay 23.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.73 Actuated Cycle Length (s) 16.0 Intersection Capacity Utilization 66.2% ICU Level of Service C Analysis Period (min) 15	Delay (s)	40.3			51.3	7.8			32.1	30.1		35.5	
Approach LOS C B C D Intersection Summary	Level of Service	D			D					С			
Intersection Summary HCM 2000 Control Delay 23.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.73 Cutuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 66.2% ICU Level of Service C Analysis Period (min) 15	Approach Delay (s)					17.9						35.5	
HCM 2000 Control Delay 23.0 HCM 2000 Level of Service C HCM 2000 Volume to Capacity ratio 0.73 Control Delay 16.0 Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 66.2% ICU Level of Service C Analysis Period (min) 15	Approach LOS		С			В			С			D	
HCM 2000 Volume to Capacity ratio 0.73 Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 66.2% ICU Level of Service C Analysis Period (min) 15	Intersection Summary												
Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 66.2% ICU Level of Service C Analysis Period (min) 15	HCM 2000 Control Delay			23.0	Н	CM 2000	Level of S	Service		С			
Actuated Cycle Length (s) 74.9 Sum of lost time (s) 16.0 Intersection Capacity Utilization 66.2% ICU Level of Service C Analysis Period (min) 15		ity ratio		0.73									
Intersection Capacity Utilization 66.2% ICU Level of Service C Analysis Period (min) 15	Actuated Cycle Length (s)	•		74.9	S	um of los	t time (s)			16.0			
Analysis Period (min) 15		ion		66.2%						С			
	Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ৰ	24		4		jk	10		16	1	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	41	497	26	36	40	535	401	19	9	220	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	540	28	39	43	582	436	21	10	239	2
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	45	540	111	582	457	10	241					
Volume Left (vph)	0	0	28	582	0	10	0					
Volume Right (vph)	0	540	43	0	21	0	2					
Hadj (s)	0.03	-0.57	-0.15	0.53	0.00	0.53	0.03					
Departure Headway (s)	6.6	3.2	6.2	5.9	5.3	6.9	6.4					
Degree Utilization, x	0.08	0.48	0.19	0.95	0.68	0.02	0.43					
Capacity (veh/h)	514	1116	556	605	658	507	553					
Control Delay (s)	10.2	9.1	10.7	47.8	17.6	8.8	12.8					
Approach Delay (s)	9.2		10.7	34.5		12.6						
Approach LOS	Α		В	D		В						
Intersection Summary												
Delay			23.0									
Level of Service			С									
Intersection Capacity Utilizati	on		63.8%	IC	U Level	of Service			В			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1,6	T.		jąį,	7.		140	10		14	B	
Volume (vph)	87	318	296	86	167	16	256	121	141	28	84	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.93		1.00	0.99		1.00	0.92		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1728		1770	1839		1770	1713		1770	1817	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1728		1770	1839		1770	1713		1770	1817	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	346	322	93	182	17	278	132	153	30	91	18
RTOR Reduction (vph)	0	39	0	0	4	0	0	55	0	0	10	0
Lane Group Flow (vph)	95	629	0	93	195	0	278	230	0	30	99	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	6.7	30.2		5.0	28.5		13.1	20.6		1.9	9.4	
Effective Green, g (s)	6.7	30.2		5.0	28.5		13.1	20.6		1.9	9.4	
Actuated g/C Ratio	0.09	0.41		0.07	0.39		0.18	0.28		0.03	0.13	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	160	708		120	711		314	478		45	231	
v/s Ratio Prot	0.05	c0.36		c0.05	0.11		c0.16	c0.13		0.02	0.05	
v/s Ratio Perm												
v/c Ratio	0.59	0.89		0.78	0.27		0.89	0.48		0.67	0.43	
Uniform Delay, d1	32.2	20.2		33.8	15.5		29.6	22.1		35.6	29.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.8	13.0		26.2	0.2		24.3	0.8		31.5	1.3	
Delay (s)	38.0	33.2		60.0	15.7		53.9	22.9		67.1	31.0	
Level of Service	D	С		Е	В		D	С		E	С	
Approach Delay (s)		33.8			29.8			38.2			38.8	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			34.9	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacit	y ratio		0.83									
Actuated Cycle Length (s)			73.7	S	um of lost	time (s)			16.0			
Intersection Capacity Utilization	n		72.6%	IC	U Level	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	ď	j ^e	1		1,4	件			
Volume (vph)	141	125	969	184	162	603			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	1.00	0.95		0.97	0.95			
Frt	1.00	0.85	0.98		1.00	1.00			
Flt Protected	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (prot)	1770	1583	3454		3433	3539			
Flt Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	1770	1583	3454		3433	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	153	136	1053	200	176	655			
RTOR Reduction (vph)	0	115	22	0	0	0			
Lane Group Flow (vph)	153	21	1231	0	176	655			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases	-	8	=		•	-			
Actuated Green, G (s)	7.9	7.9	27.5		3.7	35.2			
Effective Green, g (s)	7.9	7.9	27.5		3.7	35.2			
Actuated g/C Ratio	0.15	0.15	0.54		0.07	0.69			
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	273	244	1858		248	2437			
v/s Ratio Prot	c0.09		c0.36		c0.05	0.19			
v/s Ratio Perm		0.01							
v/c Ratio	0.56	0.09	0.66		0.71	0.27			
Uniform Delay, d1	20.0	18.5	8.5		23.2	3.0			
Progression Factor	1.00	1.00	1.00		1.00	1.00			
Incremental Delay, d2	2.6	0.2	0.9		9.0	0.1			
Delay (s)	22.6	18.7	9.4		32.1	3.1			
Level of Service	С	В	Α		С	Α			
Approach Delay (s)	20.8		9.4			9.2			
Approach LOS	С		Α			Α			
Intersection Summary									
HCM 2000 Control Delay			10.7	Н	CM 2000	Level of Service	e	В	
HCM 2000 Volume to Capa	acity ratio		0.65						
Actuated Cycle Length (s)			51.1	S	um of los	t time (s)		12.0	
Intersection Capacity Utiliza	ation		55.1%	IC	CU Level	of Service		В	
Analysis Period (min)			15						
c Critical Lane Group									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	To		,ht	4		Ac	44	ř*	1	+1>	
Volume (vph)	25	18	46	314	33	18	120	1335	606	24	1104	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.89		1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1663		1681	1682		1770	3539	1583	1770	3517	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1663		1681	1682		1770	3539	1583	1770	3517	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	20	50	341	36	20	130	1451	659	26	1200	53
RTOR Reduction (vph)	0	48	0	0	3	0	0	0	0	0	2	0
Lane Group Flow (vph)	27	22	0	198	196	0	130	1451	659	26	1251	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	4.4	4.4		16.9	16.9		17.2	81.2	120.0	3.3	67.3	
Effective Green, g (s)	4.4	4.4		16.9	16.9		17.2	81.2	120.0	3.3	67.3	
Actuated g/C Ratio	0.04	0.04		0.14	0.14		0.14	0.68	1.00	0.03	0.56	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	64	60		236	236		253	2394	1583	48	1972	
v/s Ratio Prot	0.02	0.01		c0.12	0.12		0.07	c0.41		0.01	c0.36	
v/s Ratio Perm									c0.42			
v/c Ratio	0.42	0.36		0.84	0.83		0.51	0.61	0.42	0.54	0.63	
Uniform Delay, d1	56.6	56.4		50.2	50.1		47.5	10.6	0.0	57.6	18.0	
Progression Factor	1.00	1.00		1.00	1.00		0.71	0.18	1.00	1.00	1.00	
Incremental Delay, d2	1.6	1.4		21.3	19.8		0.6	0.9	0.7	6.5	1.6	
Delay (s)	58.2	57.8		71.5	70.0		34.2	2.8	0.7	64.1	19.5	
Level of Service	E	Е		Е	Е		С	Α	Α	Е	В	
Approach Delay (s)		57.9			70.8			4.0			20.4	
Approach LOS		Е			Е			Α			С	
Intersection Summary												
HCM 2000 Control Delay			17.1	Н	CM 2000	Level of S	ervice		В			
HCM 2000 Volume to Capa	acity ratio		0.67									
Actuated Cycle Length (s)			120.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utiliza	ation		68.0%	IC	U Level	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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EPAP+PP

Dixon Ranch 16: El Dorado Hills Blvd. & Saratoga Wy. (South) EPAP+PP PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	4	74	Jal.	4	74	14 14	ተተጉ		19	444	7
Volume (vph)	212	70	302	212	155	91	987	1733	286	54	1012	448
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	0.97	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1726	1583	1681	1754	1583	3433	4977		1770	5085	1583
Flt Permitted	0.95	0.98	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1681	1726	1583	1681	1754	1583	3433	4977		1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	230	76	328	230	168	99	1073	1884	311	59	1100	487
RTOR Reduction (vph)	0	0	0	0	0	84	0	16	0	0	0	0
Lane Group Flow (vph)	152	154	328	195	203	15	1073	2179	0	59	1100	487
Turn Type	Split	NA	Free	Split	NA	Perm	Prot	NA		Prot	NA	Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			Free			8						Free
Actuated Green, G (s)	14.4	14.4	120.0	18.5	18.5	18.5	43.3	66.9		4.2	27.8	120.0
Effective Green, q (s)	14.4	14.4	120.0	18.5	18.5	18.5	43.3	66.9		4.2	27.8	120.0
Actuated g/C Ratio	0.12	0.12	1.00	0.15	0.15	0.15	0.36	0.56		0.04	0.23	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		2.2	2.2	2.2	3.0	3.5		2.0	2.5	
Lane Grp Cap (vph)	201	207	1583	259	270	244	1238	2774		61	1178	1583
v/s Ratio Prot	c0.09	0.09		c0.12	0.12		c0.31	0.44		0.03	c0.22	
v/s Ratio Perm			0.21			0.01						0.31
v/c Ratio	0.76	0.74	0.21	0.75	0.75	0.06	0.87	0.79		0.97	0.93	0.31
Uniform Delay, d1	51.1	51.0	0.0	48.6	48.6	43.3	35.7	20.9		57.8	45.2	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.13	0.70		0.72	0.65	1.00
Incremental Delay, d2	14.9	13.5	0.3	10.7	10.3	0.1	4.0	1.4		85.3	11.2	0.4
Delay (s)	66.0	64.5	0.3	59.3	58.8	43.4	44.4	15.9		127.2	40.6	0.4
Level of Service	Е	Е	Α	Е	Е	D	D	В		F	D	Α
Approach Delay (s)		31.6			55.9			25.3			31.8	
Approach LOS		С			Е			С			С	
Intersection Summary												
HCM 2000 Control Delay			30.2	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Cap	acity ratio		0.85									
Actuated Cycle Length (s)	,		120.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliz	ation		78.7%			of Service)		D			
Analysis Period (min)			15									
c Critical Lane Group												

Vehicle Extension (s)	3.0	3.0		2.2	2.2	2.2	3.0	3.5		2.0	2.5	
Lane Grp Cap (vph)	201	207	1583	259	270	244	1238	2774		61	1178	
v/s Ratio Prot	c0.09	0.09		c0.12	0.12		c0.31	0.44		0.03	c0.22	
v/s Ratio Perm			0.21			0.01						
v/c Ratio	0.76	0.74	0.21	0.75	0.75	0.06	0.87	0.79		0.97	0.93	
Uniform Delay, d1	51.1	51.0	0.0	48.6	48.6	43.3	35.7	20.9		57.8	45.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.13	0.70		0.72	0.65	
Incremental Delay, d2	14.9	13.5	0.3	10.7	10.3	0.1	4.0	1.4		85.3	11.2	
Delay (s)	66.0	64.5	0.3	59.3	58.8	43.4	44.4	15.9		127.2	40.6	
_evel of Service	Е	Е	Α	Е	Е	D	D	В		F	D	
Approach Delay (s)		31.6			55.9			25.3			31.8	
Approach LOS		С			Е			С			С	
ntersection Summary												
HCM 2000 Control Delay			30.2	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.85									
Actuated Cycle Length (s)			120.0	Sı	um of lost	time (s)			16.0			
Intersection Capacity Utiliza	ation		78.7%	IC	U Level o	of Service	9		D			
Analysis Period (min)			15									
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J.	ৰ	54,	,ąc	14		Jac.	ተተገ _ን		16	A1>	
Volume (vph)	86	27	210	43	22	304	295	1673	78	158	1234	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.91		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.86		1.00	0.99		1.00	0.99	
Flt Protected	0.95	0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1681	1724	1583	1770	1602		1770	5051		1770	3514	
Flt Permitted	0.95	0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1681	1724	1583	1770	1602		1770	5051		1770	3514	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	29	228	47	24	330	321	1818	85	172	1341	67
RTOR Reduction (vph)	0	0	214	0	279	0	0	3	0	0	2	0
Lane Group Flow (vph)	60	62	14	47	75	0	321	1900	0	172	1406	0
Turn Type	Split	NA	Prot	Split	NA		Prot	NA		Prot	NA	
Protected Phases	7	7	7	8	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	7.6	7.6	7.6	9.9	9.9		22.0	72.8		12.0	62.8	
Effective Green, g (s)	7.6	7.6	7.6	9.9	9.9		22.0	74.5		12.0	64.5	
Actuated g/C Ratio	0.06	0.06	0.06	0.08	0.08		0.18	0.62		0.10	0.54	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.7		4.0	5.7	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	4.2		0.2	4.2	
Lane Grp Cap (vph)	106	109	100	146	132		324	3135		177	1888	
v/s Ratio Prot	0.04	c0.04	0.01	0.03	c0.05		c0.18	0.38		0.10	c0.40	
v/s Ratio Perm												
v/c Ratio	0.57	0.57	0.14	0.32	0.57		0.99	0.61		0.97	0.74	
Uniform Delay, d1	54.6	54.6	53.1	51.9	53.0		48.9	13.8		53.8	21.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.90	0.27		0.81	0.55	
Incremental Delay, d2	4.1	4.0	0.2	0.5	3.3		37.9	0.6		52.2	2.2	
Delay (s)	58.7	58.6	53.4	52.4	56.3		81.8	4.4		96.1	14.0	
Level of Service	Е	Е	D	D	Е		F	Α		F	В	
Approach Delay (s)		55.2			55.9			15.5			23.0	
Approach LOS		Е			Е			В			С	
Intersection Summary												
HCM 2000 Control Delay			24.7	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capac	city ratio		0.77									
Actuated Cycle Length (s)			120.0		um of los				16.0			
Intersection Capacity Utilizat	ion		89.9%	IC	U Level	of Service			Е			
Analysis Period (min)			15									
c Critical Lane Group												

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1423

1900

4.0

0.88

0.85

1.00

2787

1.00

2787

0.92

1547

1522

45.3

45.3

0.75

4.0

3.0

2289

0.25

0.29

custom

25

1900

0.92

0

1900

0.92

0

1900

0.92

0

1900

0.92

0

Lane Configurations

Volume (vph)

Ideal Flow (vphpl)

Total Lost time (s)

Lane Util. Factor

Satd. Flow (prot)

Satd. Flow (perm)

Adj. Flow (vph)

Turn Type

Peak-hour factor, PHF

RTOR Reduction (vph)

Lane Group Flow (vph)

Protected Phases

Permitted Phases

Actuated Green, G (s)

Effective Green, g (s)

Actuated g/C Ratio

Clearance Time (s)

Vehicle Extension (s)

Lane Grp Cap (vph)

v/s Ratio Prot

v/s Ratio Perm

Flt Protected

Flt Permitted

EPAP+PP PM Peak

tttt

972

1900

4.0

0.86

1.00

1.00

6408

1.00

6408

0.92

1057

1057

NA

6

29.0

29.0

0.48

4.0

3.0

3097

0.16

0

1900

0.92

444

1929

1900

0.91

1.00

1.00

5085

1.00

5085

0.92

2097

0

NA Perm

29.7

29.7

0.49

4.0

2517

c0.41

4.0

1900

0.92

0 2097

619

4.0

1.00

0.85

1.00

1583

1.00

1583

0.92

673

84

589

2

29.7

29.7

0.49

4.0

783

0.37

1900

527

1900

4.0

1.00

1.00

0.95

1770

0.95

1770

0.92

573

573

Prot

22.3

22.3

0.37

4.0

657

c0.32

1077

1900

4.0

1.00

0.86

1.00

1611

1.00

1611

0.92

1171

1171

Free

Free

60.0

60.0

1.00

1611

c0.73

Dixon Ranch 19: Silva Valley Pkwy & EB US-50 Ramps

	٠	→	•	•	←	4	1	†	~	/	↓	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	71				34 34	44			44	f
Volume (vph)	528	0	184	0	0	0	743	919	0	0	1033	866
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.91	0.95				0.97	0.95			0.95	1.00
Frt	1.00	0.99	0.85				1.00	1.00			1.00	0.85
Flt Protected	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1603	1504				3433	3539			3539	1583
Flt Permitted	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1603	1504				3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	574	0	200	0	0	0	808	999	0	0	1123	941
RTOR Reduction (vph)	0	46	149	0	0	0	0	0	0	0	0	243
Lane Group Flow (vph)	298	250	31	0	0	0	808	999	0	0	1123	698
Turn Type	Split	NA	Perm				Prot	NA			NA	Perm
Protected Phases	4	4					5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	17.0	17.0	17.0				24.0	75.0			47.0	47.0
Effective Green, g (s)	17.0	17.0	17.0				24.0	75.0			47.0	47.0
Actuated g/C Ratio	0.17	0.17	0.17				0.24	0.75			0.47	0.47
Clearance Time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	285	272	255				823	2654			1663	744
v/s Ratio Prot	c0.18	0.16					c0.24	0.28			0.32	
v/s Ratio Perm			0.02									c0.44
v/c Ratio	1.05	0.92	0.12				0.98	0.38			0.68	0.94
Uniform Delay, d1	41.5	40.8	35.2				37.8	4.4			20.6	25.1
Progression Factor	1.00	1.00	1.00				1.00	1.00			1.02	1.04
Incremental Delay, d2	65.7	34.2	0.2				26.8	0.4			0.8	9.3
Delay (s)	107.2	75.0	35.4				64.5	4.8			21.6	35.5
Level of Service	F	Е	D				Е	Α			С	D
Approach Delay (s)		78.2			0.0			31.5			28.0	
Approach LOS		Е			Α			С			С	
Intersection Summary												
HCM 2000 Control Delay			37.7	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	acity ratio		0.97									
Actuated Cycle Length (s)	_		100.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utiliza	ation		81.5%	IC	U Level	of Service)		D			_
Analysis Period (min)			15									
c Critical Lane Group												

v/c Ratio	0.66	0.73	0.83	0.75	0.87	0.34	
Uniform Delay, d1	3.6	0.0	13.0	12.2	17.5	9.6	
Progression Factor	1.00	1.00	1.00	1.00	0.85	0.30	
Incremental Delay, d2	0.7	2.9	3.4	6.6	8.5	0.2	
Delay (s)	4.4	2.9	16.4	18.8	23.4	3.1	
Level of Service	Α	Α	В	В	С	Α	
Approach Delay (s)	4.4	2.9	17.0			10.2	
Approach LOS	Α	Α	В			В	
Intersection Summary							
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service		В			
HCM 2000 Volume to Capacity ratio	0.88						
Actuated Cycle Length (s)	60.0	Sum of lost time (s)		8.0			
Intersection Capacity Utilization	74.2%	ICU Level of Service		D			
Analysis Period (min)	15						
c Critical Lane Group							
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				Jal.	4	79"	,ht.	44			44	#
Volume (vph)	0	0	0	906	0	564	324	1123	0	0	995	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.91	0.95	1.00	0.95			0.95	1.00
Frt				1.00	0.97	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1581	1504	1770	3539			3539	1583
Flt Permitted				0.95	0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1581	1504	1770	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	985	0	613	352	1221	0	0	1082	402
RTOR Reduction (vph)	0	0	0	0	36	44	0	0	0	0	0	269
Lane Group Flow (vph)	0	0	0	552	507	459	352	1221	0	0	1082	133
Turn Type				Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases				8	8		5	2			6	
Permitted Phases						8						6
Actuated Green, G (s)				34.0	34.0	34.0	21.0	58.0			33.0	33.0
Effective Green, g (s)				34.0	34.0	34.0	21.0	58.0			33.0	33.0
Actuated g/C Ratio				0.34	0.34	0.34	0.21	0.58			0.33	0.33
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				571	537	511	371	2052			1167	522
v/s Ratio Prot				c0.33	0.32		c0.20	0.34			c0.31	
v/s Ratio Perm						0.31						0.08
v/c Ratio				0.97	0.94	0.90	0.95	0.60			0.93	0.25
Uniform Delay, d1				32.4	32.1	31.4	39.0	13.5			32.3	24.5
Progression Factor				1.00	1.00	1.00	1.00	0.58			0.94	2.16
Incremental Delay, d2				29.1	25.4	18.4	28.9	1.0			12.4	1.0
Delay (s)				61.6	57.4	49.8	68.1	8.8			42.9	53.9
Level of Service				Е	Ε	D	Е	Α			D	D
Approach Delay (s)		0.0			56.4			22.1			45.9	
Approach LOS		Α			Е			С			D	
Intersection Summary												
HCM 2000 Control Delay			41.5	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacit	ty ratio		0.95									
Actuated Cycle Length (s)			100.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utilization	on		86.3%	IC	U Level	of Service	•		Е			
Analysis Period (min)			15									
c Critical Lane Group												

	•	•	†	/	-	↓			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	ň	j"	1 13		16	+ +			
Volume (vph)	32	205	1424	263	0	1333			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0			4.0			
Lane Util. Factor	1.00	1.00	0.95			0.95			
Frt	1.00	0.85	0.98			1.00			
Flt Protected	0.95	1.00	1.00			1.00			
Satd. Flow (prot)	1770	1583	3456			3539			
Flt Permitted	0.95	1.00	1.00			1.00			
Satd. Flow (perm)	1770	1583	3456			3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	35	223	1548	286	0	1449			
RTOR Reduction (vph)	0	90	9	0	0	0			
Lane Group Flow (vph)	35	133	1825	0	0	1449			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8							
Actuated Green, G (s)	13.3	13.3	78.7			78.7			
Effective Green, q (s)	13.3	13.3	78.7			78.7			
Actuated g/C Ratio	0.13	0.13	0.79			0.79			
Clearance Time (s)	4.0	4.0	4.0			4.0			
Vehicle Extension (s)	3.0	3.0	3.0			3.0			
Lane Grp Cap (vph)	235	210	2719			2785			
v/s Ratio Prot	0.02		c0.53			0.41			
v/s Ratio Perm		c0.08							
v/c Ratio	0.15	0.63	0.67			0.52			
Uniform Delay, d1	38.3	41.0	4.8			3.8			
Progression Factor	1.00	1.00	0.99			1.00			
Incremental Delay, d2	0.3	6.1	0.9			0.7			
Delay (s)	38.6	47.1	5.7			4.5			
Level of Service	D	D	Α			A			
Approach Delay (s)	46.0	_	5.7			4.5			
Approach LOS	D		Α			A			
Intersection Summary									
HCM 2000 Control Delay			8.2	Н	CM 2000	Level of Servic	e	Α	
HCM 2000 Volume to Capa	city ratio		0.70						
Actuated Cycle Length (s)	•		100.0	S	um of lost	time (s)		12.0	
Intersection Capacity Utiliza	ation		67.1%	IC	U Level	of Service		С	
Analysis Period (min)			15						
c Critical Lane Group									

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Lane Configurations		•	-	\rightarrow	•	←	•	1	†	_	-	ļ	4
Volume (vph)	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl) 1900 1000 1.00	Lane Configurations	3/2	4%		,tel	47		140	44	il.	1	41	
Total Lost time (s)	Volume (vph)	190	227	175	361	111	145	192	768	374	223	488	121
Lane Util. Factor 1.00 0.95 1.00 0.95 1.00 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.97 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.97 1.00 0.95 1.0	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Fit Protected	Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Fit Protected 0.95 1.00 0.95 1.00 0.95 1.00 1.00 0.95 1.	Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Satd. Flow (prot)	Frt	1.00	0.93		1.00	0.92		1.00	1.00	0.85	1.00	0.97	
Fit Permitted 0.95 1.00 0.95 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 Satd. Flow (perm) 1770 3308 1770 3329 1770 3539 1583 1770 3433 1770 3433 1770 3299 1770 3599 1583 1770 3433 1770	Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm) 1770 3308 1770 3239 1770 3539 1583 1770 3433 Peak-hour factor, PHF 0.92 0.9	Satd. Flow (prot)	1770	3308		1770	3239		1770	3539	1583	1770	3433	
Peak-hour factor, PHF	Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Adj. Flow (vph) 207 247 190 392 121 158 209 835 407 242 530 132 RTOR Reduction (vph) 0 157 0 0 126 0 0 0 263 0 21 0 24	Satd. Flow (perm)	1770	3308		1770	3239		1770	3539	1583	1770	3433	
RTOR Reduction (vph)	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 207 280 0 392 153 0 209 835 144 242 641 0	Adj. Flow (vph)	207	247	190	392	121	158	209	835	407	242	530	132
Turn Type	RTOR Reduction (vph)	0	157	0	0	126	0	0	0	263	0	21	0
Protected Phases 7 4 3 8 5 2 1 6 Permitted Phases 2 2 2 4 1 6 Permitted Phases 2 2 4 2 4 13.0 26.4 Effective Green, G (s) 14.7 13.0 20.0 18.3 11.0 24.4 24.4 13.0 26.4 Actuated Green, g (s) 14.7 13.0 20.0 18.3 11.0 24.4 24.4 13.0 26.4 Actuated g/C Ratio 0.17 0.15 0.22 0.21 0.12 0.27 0.27 0.15 0.30 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Lane Group Flow (vph)	207	280	0	392	153	0	209	835	144	242	641	0
Permitted Phases Actuated Green, G (s) 14.7 13.0 20.0 18.3 11.0 24.4 24.4 13.0 26.4 Effective Green, g (s) 14.7 13.0 20.0 18.3 11.0 24.4 24.4 13.0 26.4 Actuated g/C Ratio 0.17 0.15 0.22 0.21 0.12 0.27 0.27 0.15 0.30 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Actuated Green, G (s) 14.7 13.0 20.0 18.3 11.0 24.4 24.4 13.0 26.4 Effective Green, g (s) 14.7 13.0 20.0 18.3 11.0 24.4 24.4 13.0 26.4 Actuated g/C Ratio 0.17 0.15 0.22 0.21 0.12 0.27 0.27 0.15 0.30 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Protected Phases	7	4		3	8		5	2		1	6	
Effective Green, g (s) 14.7 13.0 20.0 18.3 11.0 24.4 24.4 13.0 26.4 Actuated g/C Ratio 0.17 0.15 0.22 0.21 0.12 0.27 0.27 0.15 0.30 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Verbicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Permitted Phases									2			
Actuated g/C Ratio 0.17 0.15 0.22 0.21 0.12 0.27 0.27 0.15 0.30 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Actuated Green, G (s)	14.7	13.0		20.0	18.3		11.0	24.4	24.4	13.0	26.4	
Clearance Time (s)	Effective Green, g (s)	14.7	13.0		20.0	18.3		11.0	24.4	24.4	13.0	26.4	
Vehicle Extension (s) 3.0 2.0 1.0	Actuated g/C Ratio	0.17	0.15		0.22	0.21		0.12	0.27	0.27	0.15	0.30	
Lane Grp Cap (vph) 292 483 397 665 218 970 433 258 1018 v/s Ratio Prot 0.12 c0.08 c0.22 0.05 0.12 c0.24 c0.14 0.19 v/s Ratio Perm 0.09 v/s Ratio P	Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
\(\text{V/s}\) Ratio Prot \(0.12 \) c0.08 \(\text{C0.22} \) 0.05 \(0.12 \) c0.24 \(\text{C0.14} \) 0.19 \(\text{V/s}\) Ratio Perm \(\text{V/s}\) Ratio Perm \(\text{V/s}\) Ratio \(\text{Def}\) \(\text{Col.24} \) \(\text{Col.24} \) \(\text{Col.24} \) \(\text{Col.14} \) 0.19 \(\text{V/s}\) Ratio \(\text{Col.27} \) \(\text{Col.28} \) \(\text{Col.29} \) \(\text{Col.24} \) \(\text{Col.24} \) \(\text{Col.14} \) \(\text{Col.29} \	Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
\(\text{Vs Ratio Perm } \\ \text{Vc Ratio Perm } \\ \text{Vc Ratio } \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Lane Grp Cap (vph)	292	483		397	665		218	970	433	258	1018	
w/c Ratio 0.71 0.58 0.99 0.23 0.96 0.86 0.33 0.94 0.63 Uniform Delay, d1 35.1 35.4 34.4 29.5 38.8 30.7 25.8 37.6 27.1 Progression Factor 1.00<	v/s Ratio Prot	0.12	c0.08		c0.22	0.05		0.12	c0.24		c0.14	0.19	
Uniform Delay, d1 35.1 35.4 34.4 29.5 38.8 30.7 25.8 37.6 27.1 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	v/s Ratio Perm									0.09			
Progression Factor 1.00 2.02 2.03 2.02 2.03 2.02 2.03 2.02 2.03 2.03 2.03 2.63 76.7 28.3 2.02 41.2 41.2 41.2 41.2 41.2 41.2 41.2 41.2 41.2 41.2 41.2 <td>v/c Ratio</td> <td>0.71</td> <td>0.58</td> <td></td> <td>0.99</td> <td>0.23</td> <td></td> <td>0.96</td> <td>0.86</td> <td>0.33</td> <td>0.94</td> <td>0.63</td> <td></td>	v/c Ratio	0.71	0.58		0.99	0.23		0.96	0.86	0.33	0.94	0.63	
Incremental Delay, d2	Uniform Delay, d1	35.1	35.4		34.4	29.5		38.8	30.7	25.8	37.6	27.1	
Delay (s)	Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Level of Service D D E C F D C E C Approach Delay (s) 39.0 56.6 42.2 41.2 41.2 Approach LOS D E D D D Intersection Summary HCM 2000 Control Delay 44.0 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.85 Actuated Cycle Length (s) 18.6 Actuated Cycle Length (s) 89.0 Sum of lost time (s) 18.6 Analysis Period (min) 15 ICU Level of Service D	Incremental Delay, d2				41.4				7.9		39.1	1.2	
Approach Delay (s) 39.0 56.6 42.2 41.2 Approach LOS D E D D Intersection Summary HCM 2000 Control Delay 44.0 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.85	Delay (s)	42.8	37.1		75.8			87.5	38.6	26.3		28.3	
Approach LOS D E D D Intersection Summary HCM 2000 Control Delay 44.0 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.85 Actuated Cycle Length (s) 89.0 Sum of lost time (s) 18.6 Intersection Capacity Utilization 81.0% ICU Level of Service D Analysis Period (min) 15	Level of Service	D			Е			F		С	Е		
HCM 2000 Control Delay	Approach Delay (s)		39.0			56.6			42.2			41.2	
HCM 2000 Control Delay 44.0 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.85 Actuated Cycle Length (s) 89.0 Sum of lost time (s) 18.6 Intersection Capacity Utilization 81.0% ICU Level of Service D Analysis Period (min) 15	Approach LOS		D			Е			D			D	
HCM 2000 Volume to Capacity ratio 0.85 Actuated Cycle Length (s) 89.0 Sum of lost time (s) 18.6 Intersection Capacity Utilization 81.0% ICU Level of Service D Analysis Period (min) 15	Intersection Summary												
Actuated Cycle Length (s) 89.0 Sum of lost time (s) 18.6 Intersection Capacity Utilization 81.0% ICU Level of Service D Analysis Period (min) 15	HCM 2000 Control Delay			44.0	Н	CM 2000	Level of	Service		D			
Actuated Cycle Length (s) 89.0 Sum of lost time (s) 18.6 Intersection Capacity Utilization 81.0% ICU Level of Service D Analysis Period (min) 15		city ratio		0.85									
Analysis Period (min) 15	Actuated Cycle Length (s)	•		89.0	S	um of los	t time (s)			18.6			
Analysis Period (min) 15	Intersection Capacity Utiliza	ition		81.0%	IC	U Level	of Service			D			
	Analysis Period (min)			15									
	c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	4	71	Jal.	7.		140	10		1	4	#
Volume (vph)	164	14	251	9	11	6	226	454	13	12	311	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1760		1770	1855		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1760		1770	1855		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	178	15	273	10	12	7	246	493	14	13	338	96
RTOR Reduction (vph)	0	0	230	0	7	0	0	1	0	0	0	65
Lane Group Flow (vph)	178	15	43	10	12	0	246	506	0	13	338	31
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	7.3	8.1	8.1	0.6	1.4		10.2	25.9		0.6	16.3	16.3
Effective Green, g (s)	7.3	8.1	8.1	0.6	1.4		10.2	25.9		0.6	16.3	16.3
Actuated g/C Ratio	0.14	0.16	0.16	0.01	0.03		0.20	0.51		0.01	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	252	294	250	20	48		352	938		20	593	503
v/s Ratio Prot	c0.10	0.01		0.01	0.01		c0.14	c0.27		0.01	0.18	
v/s Ratio Perm			c0.03									0.02
v/c Ratio	0.71	0.05	0.17	0.50	0.25		0.70	0.54		0.65	0.57	0.06
Uniform Delay, d1	20.9	18.3	18.7	25.2	24.4		19.1	8.6		25.2	14.5	12.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.7	0.1	0.3	18.3	2.8		6.0	0.6		56.6	1.3	0.1
Delay (s)	29.6	18.4	19.0	43.5	27.2		25.0	9.2		81.8	15.8	12.2
Level of Service	С	В	В	D	С		С	Α		F	В	В
Approach Delay (s)		23.0			32.8			14.4			16.9	
Approach LOS		С			С			В			В	
Intersection Summary												
HCM 2000 Control Delay			17.7	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capa	acity ratio		0.66									
Actuated Cycle Length (s)	,		51.2	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		54.6%	IC	U Level	of Service			Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	17	4	39	82	2	83	70	404	132	115	309	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	4	42	89	2	90	76	439	143	125	336	32
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	65	182	659	492								
Volume Left (vph)	18	89	76	125								
Volume Right (vph)	42	90	143	32								
Hadj (s)	-0.30	-0.17	-0.07	0.05								
Departure Headway (s)	7.2	6.9	5.6	5.8								
Degree Utilization, x	0.13	0.35	1.02	0.80								
Capacity (veh/h)	452	490	648	604								
Control Delay (s)	11.3	13.5	64.3	28.1								
Approach Delay (s)	11.3	13.5	64.3	28.1								
Approach LOS	В	В	F	D								
Intersection Summary												
Delay			42.5									
Level of Service			Е									
Intersection Capacity Utiliza	ation		68.2%	IC	U Level	of Service			С			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			4		럣
Volume (veh/h)	895	117	0	574	0	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	973	127	0	624	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				716		
pX, platoon unblocked					0.89	
vC, conflicting volume			1100		1660	1036
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1100		1679	1036
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	95
cM capacity (veh/h)			635		93	281
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	1100	624	15			
Volume Left	0	024	0			
Volume Right	127	0	15			
cSH	1700	1700	281			
Volume to Capacity	0.65	0.37	0.05			
Queue Length 95th (ft)	0.03	0.37	0.03			
Control Delay (s)	0.0	0.0	18.5			
Lane LOS	0.0	0.0	10.5 C			
Approach Delay (s)	0.0	0.0	18.5			
Approach LOS	0.0	0.0	16.5 C			
••			C			
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utiliza	ation		64.2%	IC	U Level	of Service
Analysis Period (min)			15			

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Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd.

EPA	۱P-	+22	
	AM	Peak	

	•	-	•	—	1	†	↓	4	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	35	419	130	1134	39	140	464	196	
v/c Ratio	0.62	0.52	0.85	1.23	0.21	0.70	1.05	0.40	
Control Delay	112.2	32.6	105.6	146.0	61.0	73.2	108.3	15.0	
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
Total Delay	112.2	32.6	105.6	146.3	61.0	73.2	108.3	15.0	
Queue Length 50th (ft)	33	287	123	~1347	34	114	~487	34	
Queue Length 95th (ft)	#93	392	#242	#1615	72	190	#708	107	
Internal Link Dist (ft)		1935		786		1468	502		
Turn Bay Length (ft)	85		105		165				
Base Capacity (vph)	56	817	159	921	212	225	441	495	
Starvation Cap Reductn	0	0	0	44	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.63	0.51	0.82	1.29	0.18	0.62	1.05	0.40	

Intersection Summary

Dixon Ranch 3: Silva Valley Pkwy. & Green Valley Rd. EPAP+PP AM Peak

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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	2	323	254	207	868	422	139	57	
v/c Ratio	0.03	0.55	0.38	0.81	0.96	0.81	0.26	0.38	
Control Delay	49.5	32.9	5.1	66.3	49.3	47.2	17.7	48.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	49.5	32.9	5.1	66.3	49.3	47.2	17.7	48.5	
Queue Length 50th (ft)	1	171	0	126	509	242	35	31	
Queue Length 95th (ft)	10	268	55	#285	#930	#467	94	75	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	73	711	761	256	901	530	550	419	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.03	0.45	0.33	0.81	0.96	0.80	0.25	0.14	
Intersection Summary									

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Dixon Ranch 18: Latrobe Rd. & US-50 EB Ramp

AM Peak

	•	•	1		-	ţ
Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1611	509	1478	266	672	1826
v/c Ratio	0.69	0.32	0.68	0.34	0.85	0.51
Control Delay	3.7	0.5	17.9	6.1	24.0	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	0.5	17.9	6.1	24.0	8.7
Queue Length 50th (ft)	46	0	175	18	305	158
Queue Length 95th (ft)	24	0	238	64	m301	m167
Internal Link Dist (ft)			720			318
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	2324	1611	2173	786	898	3549
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.32	0.68	0.34	0.75	0.51
Intersection Summary						

m Volume for 95th percentile queue is metered by upstream signal.

Dixon Ranch 19: Silva Valley Pkwy & EB US-50 Ramps EPAP+PP AM Peak

	•	-	•	1	Ť	ţ	4	
Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	225	219	108	620	626	1089	666	
v/c Ratio	0.75	0.64	0.30	0.76	0.25	0.71	0.68	
Control Delay	47.0	29.4	8.5	35.5	4.3	11.7	5.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	1.8	
Total Delay	47.0	29.4	8.5	35.5	4.3	11.9	7.7	
Queue Length 50th (ft)	110	73	0	148	50	204	59	
Queue Length 95th (ft)	#204	151	42	207	69	m254	m73	
Internal Link Dist (ft)		797			881	399		
Turn Bay Length (ft)								
Base Capacity (vph)	336	375	387	815	2550	1533	978	
Starvation Cap Reductn	0	0	0	0	0	66	170	
Spillback Cap Reductn	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.67	0.58	0.28	0.76	0.25	0.74	0.82	

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Dixon Ranch 20: Silva Valley Pkwy & WB US-50 Ramps EPAP+PP AM Peak

	•	←	•	4	†	↓	4
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	399	389	370	377	682	1186	607
v/c Ratio	0.91	0.86	0.62	0.92	0.30	0.94	0.64
Control Delay	56.4	42.7	12.8	64.0	6.6	35.1	3.6
Queue Delay	1.0	2.0	0.7	0.0	0.2	45.0	1.2
Total Delay	57.3	44.6	13.5	64.0	6.8	80.1	4.8
Queue Length 50th (ft)	203	164	41	194	62	306	0
Queue Length 95th (ft)	#373	#336	132	#347	88	#428	36
Internal Link Dist (ft)		1051			399	84	
Turn Bay Length (ft)			360				
Base Capacity (vph)	441	456	594	420	2261	1261	954
Starvation Cap Reductn	0	0	0	0	0	321	163
Spillback Cap Reductn	5	17	59	0	785	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.89	0.69	0.90	0.46	1.26	0.77
Intersection Summary							

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Dixon Ranch 26: Site Dwy. Full/Site Dwy. & Green Valley Rd. EPAP+PP AM Peak

	→	•	←	†	/
Lane Group	EBT	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	405	25	710	233	47
v/c Ratio	0.36	0.04	0.63	0.48	0.08
Control Delay	7.3	6.1	11.5	16.9	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.3	6.1	11.5	16.9	5.2
Queue Length 50th (ft)	48	3	113	45	0
Queue Length 95th (ft)	112	12	#259	109	17
Internal Link Dist (ft)	686		524	781	
Turn Bay Length (ft)		215			
Base Capacity (vph)	1268	642	1284	706	816
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.32	0.04	0.55	0.33	0.06
Intersection Summary					
# 95th percentile volume	evceeds ca	nacity di	IAIIA Mav	he longe	r

^{# 95}th percentile volume exceeds capacity, queue may be longer

Queue shown is maximum after two cycles.

Dixon Ranch
2: El Dorado Hills Blvd. & Green Valley Rd.

EPAP+PP PM Peak

Dixon Ranch	
3: Silva Valley P	kwy. & Green Valley Rd.

EPAP+PP PM Peak

•	\rightarrow	•	•	1	Ť	↓	4	
EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR	
150	1181	75	789	60	366	181	118	
0.88	1.17	1.36	0.90	0.22	1.28	0.73	0.37	
106.7	117.1	289.8	48.4	55.9	194.3	76.8	12.3	
0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	
106.7	117.1	289.8	51.9	55.9	194.3	76.8	12.3	
141	~1326	~92	668	50	~423	163	0	
#272	#1616	#203	#954	96	#638	248	58	
	1935		786		1468	502		
85		105		165				
175	1012	55	880	273	286	282	344	
0	0	0	45	0	0	0	0	
0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	
0.86	1.17	1.36	0.94	0.22	1.28	0.64	0.34	
	150 0.88 106.7 0.0 106.7 141 #272 85 175 0 0	150 1181 0.88 1.17 106.7 117.1 141 ~1326 #272 #1616 #272 #1616 1935 85 175 1012 0 0 0 0 0 0	150 1181 75 0.88 1.17 1.36 106.7 117.1 289.8 0.0 0.0 0.0 106.7 117.1 289.8 141 ~1326 ~92 #272 #1616 #203 1935 85 105 175 1012 55 0 0 0 0 0 0	150	150	150	150	150

Intersection Summary

Queue shown is maximum after two cycles.

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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	10	930	415	128	552	307	234	16	
v/c Ratio	0.12	0.97	0.45	1.28	0.49	0.79	0.45	0.13	
Control Delay	46.4	46.0	8.0	219.3	13.6	49.6	9.2	37.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.4	46.0	8.0	219.3	13.6	49.6	9.2	37.3	
Queue Length 50th (ft)	5	422	48	~84	129	151	8	6	
Queue Length 95th (ft)	23	#850	141	#218	342	#323	73	27	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	80	959	925	100	1117	390	521	450	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.13	0.97	0.45	1.28	0.49	0.79	0.45	0.04	
1.1									

Intersection Summary

Queue shown is maximum after two cycles.

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Dixon Ranch 18: Latrobe Rd. & US-50 EB Ramp EPAP+PP PM Peak

٠.	+22	
M	Peak	

	•	•	†	~	-	↓
Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1547	1171	2097	673	573	1057
v/c Ratio	0.67	0.73	0.83	0.78	0.87	0.34
Control Delay	3.5	2.9	17.8	18.2	25.6	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.5	2.9	17.8	18.2	25.6	3.1
Queue Length 50th (ft)	35	0	235	148	194	22
Queue Length 95th (ft)	55	0	#313	#347	m250	m23
Internal Link Dist (ft)			720			333
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	2308	1611	2517	867	708	3097
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.73	0.83	0.78	0.81	0.34

Intersection Summary

Dixon Ranch 19: Silva Valley Pkwy & EB US-50 Ramps EPAP+PP PM Peak

	•	→	•	1	†	Į.	4	
Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	298	296	180	808	999	1123	941	
v/c Ratio	1.05	0.93	0.44	0.98	0.38	0.68	0.95	
Control Delay	107.5	70.4	9.4	66.0	4.8	22.0	23.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.6	43.2	
Total Delay	107.5	70.4	9.4	66.0	4.8	23.6	66.8	
Queue Length 50th (ft)	~217	170	0	264	96	188	197	
Queue Length 95th (ft)	#390	#349	61	#390	123	m204	m#220	
Internal Link Dist (ft)		797			881	399		
Turn Bay Length (ft)								
Base Capacity (vph)	285	318	405	823	2654	1663	987	
Starvation Cap Reductn	0	0	0	0	0	342	151	
Spillback Cap Reductn	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	
Reduced v/c Ratio	1.05	0.93	0.44	0.98	0.38	0.85	1.13	

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Dixon Ranch 20: Silva Valley Pkwy & WB US-50 Ramps

EPAP+PP	
PM Peak	

	•	•	•	1	†	↓	4
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	552	543	503	352	1221	1082	402
v/c Ratio	0.97	0.95	0.91	0.95	0.60	0.93	0.51
Control Delay	64.2	56.6	49.9	71.5	9.0	43.7	7.9
Queue Delay	0.0	45.1	48.6	0.0	0.5	45.7	1.7
Total Delay	64.2	101.6	98.4	71.5	9.5	89.4	9.6
Queue Length 50th (ft)	361	336	284	186	140	351	52
Queue Length 95th (ft)	#590	#575	#496	m#325	m155	#481	133
Internal Link Dist (ft)		1051			399	84	
Turn Bay Length (ft)			360				
Base Capacity (vph)	571	574	554	371	2052	1167	791
Starvation Cap Reductn	0	0	0	0	398	258	232
Spillback Cap Reductn	0	155	148	0	88	9	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	1.30	1.24	0.95	0.74	1.19	0.72

Intersection Summary

Dixon Ranch 26: Site Dwy. Full/Site Dwy. & Green Valley Rd. EPAP+PP PM Peak

	-	•	←	†	1
Lane Group	EBT	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	988	76	473	151	30
v/c Ratio	0.77	0.39	0.36	0.44	0.07
Control Delay	14.1	14.0	6.0	23.3	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	14.0	6.0	23.3	7.9
Queue Length 50th (ft)	189	10	57	45	0
Queue Length 95th (ft)	#543	#56	133	91	16
Internal Link Dist (ft)	636		524	781	
Turn Bay Length (ft)		215			
Base Capacity (vph)	1349	202	1369	581	670
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.38	0.35	0.26	0.04
Intersection Summary					

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Appendix G:

Analysis Worksheets for Cumulative (2025) Conditions

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd. Cumulative AM Peak

	•	-	•	•	←	•	•	†	/	-	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SE
Lane Configurations	7	T.		Jal.	7.		,ht	10			4	
Volume (vph)	32	340	24	93	1011	63	47	84	35	145	330	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	19
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1
Frt	1.00	0.99		1.00	0.99		1.00	0.96			1.00	0
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1
Satd. Flow (prot)	1770	1844		1770	1846		1770	1780			1835	1
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1
Satd. Flow (perm)	1770	1844		1770	1846		1770	1780			1835	15
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0
Adj. Flow (vph)	35	370	26	101	1099	68	51	91	38	158	359	
RTOR Reduction (vph)	0	2	0	0	1	0	0	11	0	0	0	
Lane Group Flow (vph)	35	394	0	101	1166	0	51	118	0	0	517	
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	P
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases	•	-		_	=			•		-	-	
Actuated Green, G (s)	3.5	63.2		12.4	72.1		14.7	14.7			32.6	3
Effective Green, g (s)	3.5	63.2		12.4	72.1		14.7	14.7			32.6	3
Actuated g/C Ratio	0.02	0.45		0.09	0.51		0.10	0.10			0.23	(
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	
Lane Grp Cap (vph)	43	821		154	937		183	184			421	
v/s Ratio Prot	0.02	0.21		c0.06	c0.63		0.03	c0.07			c0.28	
v/s Ratio Perm	0.02	0.21		00.00	00.00		0.00	00.01			00.20	(
v/c Ratio	0.81	0.48		0.66	1.24		0.28	0.64			1.23	(
Uniform Delay, d1	68.9	27.8		62.7	34.9		58.7	61.1			54.7	2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	-
Incremental Delay, d2	68.4	0.9		8.6	118.8		1.4	9.1			122.0	
Delay (s)	137.2	28.7		71.3	153.7		60.1	70.2			176.6	4
Level of Service	F	C		7 1.0 E	F		E	E			17 0.0 F	
Approach Delay (s)		37.5			147.1			67.4			135.7	
Approach LOS		D			F			E			F	
Intersection Summary												
HCM 2000 Control Delay			120.5	Н	CM 2000	Level of	Service		F			
HCM 2000 Volume to Capa	acity ratio		1.15				_ 3					
Actuated Cycle Length (s)	,		141.9	S	um of los	t time (s)			19.0			
Intersection Capacity Utiliza	ation		108.6%		CU Level)		G			
Analysis Period (min)			15		C LOTOI	0. 001 1100						
c Critical Lane Group												

Level of Service	F	С	E	F	E	Ε		F	D
Approach Delay (s)		37.5		147.1		67.4		135.7	
Approach LOS		D		F		Е		F	
Intersection Summary									
HCM 2000 Control Delay		12	20.5	HCM 2000 Le	evel of Service		F		
HCM 2000 Volume to Cap	acity ratio	•	1.15						
Actuated Cycle Length (s)		14	11.9	Sum of lost ti	me (s)		19.0		
Intersection Capacity Utiliz	ation	108	.6%	ICU Level of	Service		G		
Analysis Period (min)			15						
c Critical Lane Group									

	•	-	•	•	←	•	1	†	/	-	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	July	44	71	jąć,	44	74	34 34	1 13		1	4	#
Volume (vph)	179	287	260	83	978	107	316	179	7	105	307	416
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3518		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3518		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	312	283	90	1063	116	343	195	8	114	334	452
RTOR Reduction (vph)	0	0	183	0	0	73	0	4	0	0	0	133
Lane Group Flow (vph)	195	312	100	90	1063	43	343	199	0	114	334	319
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	6.1	30.7	30.7	7.3	31.9	31.9	10.1	23.2		7.1	20.2	20.2
Effective Green, g (s)	6.1	30.7	30.7	7.3	31.9	31.9	10.1	23.2		7.1	20.2	20.2
Actuated g/C Ratio	0.07	0.35	0.35	0.08	0.37	0.37	0.12	0.27		0.08	0.23	0.23
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	242	1256	561	149	1305	583	400	943		145	435	369
v/s Ratio Prot	c0.06	0.09		0.05	c0.30		c0.10	c0.06		0.06	0.18	
v/s Ratio Perm			0.06			0.03						c0.20
v/c Ratio	0.81	0.25	0.18	0.60	0.81	0.07	0.86	0.21		0.79	0.77	0.87
Uniform Delay, d1	39.6	19.7	19.2	38.2	24.6	17.7	37.5	24.6		39.0	31.0	31.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	17.5	0.1	0.2	6.7	4.0	0.1	16.4	0.1		23.9	7.9	18.6
Delay (s)	57.1	19.8	19.4	45.0	28.7	17.8	53.9	24.7		62.8	38.9	50.5
Level of Service	Е	В	В	D	С	В	D	С		Е	D	D
Approach Delay (s)		28.9			28.8			43.0			47.7	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			35.9	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.82									
Actuated Cycle Length (s)			86.5	S	um of los	t time (s)			18.2			
Intersection Capacity Utiliza	ition		73.6%	IC	U Level	of Service	•		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 4: Loch Way & Green Valley Rd

	۶	→	•	•	←	•	4	†	/	>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	37	4	54,	Jal.	ĵ.		JAC.	10			4	
Volume (vph)	3	282	259	107	727	27	464	77	56	6	47	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.94			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1863	1583	1770	1853		1770	1745			1826	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1863	1583	1770	1853		1770	1745			1826	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	307	282	116	790	29	504	84	61	7	51	7
RTOR Reduction (vph)	0	0	173	0	1	0	0	16	0	0	3	0
Lane Group Flow (vph)	3	307	109	116	818	0	504	129	0	0	62	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6									
Actuated Green, G (s)	0.7	51.3	51.3	12.8	63.4		42.3	42.3			8.0	
Effective Green, g (s)	0.7	51.3	51.3	12.8	63.4		42.3	42.3			8.0	
Actuated g/C Ratio	0.01	0.39	0.39	0.10	0.48		0.32	0.32			0.06	
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Vehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
Lane Grp Cap (vph)	9	720	611	170	885		564	556			110	
v/s Ratio Prot	0.00	0.16		c0.07	c0.44		c0.28	0.07			c0.03	
v/s Ratio Perm			0.07									
v/c Ratio	0.33	0.43	0.18	0.68	0.92		0.89	0.23			0.57	
Uniform Delay, d1	65.8	29.9	26.8	58.0	32.4		43.1	33.2			60.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	15.2	0.4	0.1	9.9	15.0		16.4	0.2			5.3	
Delay (s)	81.0	30.3	27.0	67.9	47.4		59.5	33.4			66.0	
Level of Service	F	С	С	Е	D		Е	С			Е	
Approach Delay (s)		29.0			50.0			53.6			66.0	
Approach LOS		С			D			D			Е	
Intersection Summary												
HCM 2000 Control Delay			45.9	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capac	city ratio		0.89									
Actuated Cycle Length (s)			132.7		um of los				18.3			
Intersection Capacity Utilizat	tion		87.5%	IC	CU Level	of Service)		Е			
Analysis Period (min)			15									
c Critical Lane Group												

	-	•	•	•	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	To-			41	19	7
Volume (veh/h)	370	16	7	726	29	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	402	17	8	789	32	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			420		1215	411
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			420		1215	411
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		84	99
cM capacity (veh/h)			1140		199	641
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	420	797	32	8		
Volume Left	0	8	32	0		
Volume Right	17	0	0	8		
cSH	1700	1140	199	641		
Volume to Capacity	0.25	0.01	0.16	0.01		
Queue Length 95th (ft)	0.23	1	14	1		
Control Delay (s)	0.0	0.2	26.5	10.7		
Lane LOS	0.0	0.2 A	20.5 D	В		
Approach Delay (s)	0.0	0.2	23.4	D		
Approach LOS	0.0	0.2	23.4 C			
•••						
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utiliz	zation		53.8%	IC	U Level o	of Service
Analysis Period (min)			15			

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	1>		44	
Volume (veh/h)	11	377	733	4	12	28
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	410	797	4	13	30
Pedestrians			, , ,	•		00
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)		140110	140110			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	801				1233	799
vC1, stage 1 conf vol	001				.200	
vC2, stage 2 conf vol						
vCu, unblocked vol	801				1233	799
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					0	0.2
tF (s)	2.2				3.5	3.3
p0 queue free %	99				93	92
cM capacity (veh/h)	822				193	386
, , ,		WB 1	SB 1		100	000
Direction, Lane # Volume Total	EB 1					
	422	801	43			
Volume Left	12	0	13			
Volume Right	0	4	30			
cSH	822	1700	296			
Volume to Capacity	0.01	0.47	0.15			
Queue Length 95th (ft)	1	0	13			
Control Delay (s)	0.4	0.0	19.2			
Lane LOS	Α		С			
Approach Delay (s)	0.4	0.0	19.2			
Approach LOS			С			
Intersection Summary						
Average Delay	-		0.8			
Intersection Capacity Utiliza			40.00/	10	NIII amala	of Service
	tion		48.8%	IC	U Level (or Service

	•	→	←	•	-	✓
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	10		44	
Volume (veh/h)	7	341	685	2	10	25
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	371	745	2	11	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	747				1132	746
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	747				1132	746
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				95	93
cM capacity (veh/h)	862				223	414
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	378	747	38			
Volume Left	8	0	11			
Volume Right	0	2	27			
cSH	862	1700	332			
Volume to Capacity	0.01	0.44	0.11			
Queue Length 95th (ft)	1	0	10			
Control Delay (s)	0.3	0.0	17.2			
Lane LOS	A		С			
Approach Delay (s)	0.3	0.0	17.2			
Approach LOS			С			
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utili	ization		46.2%	IC	U Level	of Service
Analysis Period (min)			15			
			10			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	T.		Jal.	D.			4			4	
Volume (veh/h)	8	299	4	11	614	7	22	0	32	25	0	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	325	4	12	667	8	24	0	35	27	0	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	675			329			1083	1043	327	1072	1042	671
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	675			329			1083	1043	327	1072	1042	671
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			86	100	95	85	100	90
cM capacity (veh/h)	916			1230			172	225	714	186	225	456
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	9	329	12	675	59	74						
Volume Left	9	0	12	0	24	27						
Volume Right	0	4	0	8	35	47						
cSH	916	1700	1230	1700	313	297						
Volume to Capacity	0.01	0.19	0.01	0.40	0.19	0.25						
Queue Length 95th (ft)	1	0	1	0	17	24						
Control Delay (s)	9.0	0.0	8.0	0.0	19.1	21.1						
Lane LOS	Α		Α		С	С						
Approach Delay (s)	0.2		0.1		19.1	21.1						
Approach LOS					С	С						
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utiliza	ation		44.4%	IC	CU Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	1			4	44				
Volume (vph)	657	36	9	941	109	26			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0			4.0	4.0				
Lane Util. Factor	1.00			1.00	1.00				
Frt	0.99			1.00	0.97				
Flt Protected	1.00			1.00	0.96				
Satd. Flow (prot)	1850			1862	1744				
Flt Permitted	1.00			0.99	0.96				
Satd. Flow (perm)	1850			1851	1744				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	714	39	10	1023	118	28			
RTOR Reduction (vph)	3	0	0	0	16	0			
Lane Group Flow (vph)	750	0	0	1033	130	0			
Turn Type	NA		Perm	NA	NA				
Protected Phases	4			8	2				
Permitted Phases			8						
Actuated Green, G (s)	33.0			33.0	9.1				
Effective Green, g (s)	33.0			33.0	9.1				
Actuated g/C Ratio	0.66			0.66	0.18				
Clearance Time (s)	4.0			4.0	4.0				
Vehicle Extension (s)	3.0			3.0	3.0				
Lane Grp Cap (vph)	1218			1219	316				
v/s Ratio Prot	0.41				c0.07				
v/s Ratio Perm				c0.56					
v/c Ratio	0.62			0.85	0.41				
Uniform Delay, d1	4.9			6.6	18.1				
Progression Factor	1.00			1.00	1.00				
Incremental Delay, d2	0.9			5.6	0.9				
Delay (s)	5.8			12.2	19.0				
Level of Service	Α			В	В				
Approach Delay (s)	5.8			12.2	19.0				
Approach LOS	Α			В	В				
Intersection Summary									
HCM 2000 Control Delay			10.3	Н	CM 2000	Level of Service	e	В	
HCM 2000 Volume to Capa	acity ratio		0.75						
Actuated Cycle Length (s)			50.1	S	um of lost	time (s)		8.0	
Intersection Capacity Utiliza	ation		71.0%	IC	CU Level o	of Service		С	
Analysis Period (min)			15						
c Critical Lane Group									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3,1	To		Jac.	7+			4	ř*		4	
Volume (vph)	6	428	178	178	654	6	269	4	84	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.96		1.00	1.00			1.00	0.85		0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1781		1770	1860			1775	1583		1695	
Flt Permitted	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1781		1770	1860			1775	1583		1695	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	465	193	193	711	7	292	4	91	1	0	1
RTOR Reduction (vph)	0	14	0	0	0	0	0	0	73	0	2	0
Lane Group Flow (vph)	7	644	0	193	718	0	0	296	18	0	0	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	0.7	35.4		10.0	44.7			15.8	15.8		1.0	
Effective Green, g (s)	0.7	35.4		10.0	44.7			15.8	15.8		1.0	
Actuated g/C Ratio	0.01	0.45		0.13	0.57			0.20	0.20		0.01	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	15	806		226	1063			358	319		21	
v/s Ratio Prot	0.00	c0.36		c0.11	0.39			c0.17			c0.00	
v/s Ratio Perm									0.01			
v/c Ratio	0.47	0.80		0.85	0.68			0.83	0.06		0.00	
Uniform Delay, d1	38.6	18.3		33.4	11.7			29.9	25.2		38.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	21.2	5.6		25.5	1.7			14.4	0.1		0.0	
Delay (s)	59.8	23.9		58.9	13.4			44.3	25.3		38.1	
Level of Service	Е	С		Е	В			D	С		D	
Approach Delay (s)		24.3			23.0			39.8			38.1	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			26.8	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.80									
Actuated Cycle Length (s)			78.2	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	tion		75.0%	IC	U Level	of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	14		Jąć.	7.		180	10			44	
Volume (vph)	13	446	95	24	555	7	224	2	53	15	5	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.85			0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1814		1770	1859		1770	1593			1667	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1814		1770	1859		1770	1593			1667	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	485	103	26	603	8	243	2	58	16	5	50
RTOR Reduction (vph)	0	8	0	0	1	0	0	45	0	0	47	0
Lane Group Flow (vph)	14	580	0	26	610	0	243	15	0	0	24	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Actuated Green, G (s)	0.6	26.4		1.2	27.0		13.3	13.3			3.8	
Effective Green, g (s)	0.6	26.4		1.2	27.0		13.3	13.3			3.8	
Actuated g/C Ratio	0.01	0.43		0.02	0.44		0.22	0.22			0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	17	788		34	826		387	349			104	
v/s Ratio Prot	0.01	0.32		c0.01	c0.33		c0.14	0.01			c0.01	
v/s Ratio Perm												
v/c Ratio	0.82	0.74		0.76	0.74		0.63	0.04			0.23	
Uniform Delay, d1	30.0	14.2		29.6	13.9		21.5	18.7			27.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	132.1	3.6		66.1	3.5		3.2	0.0			1.1	
Delay (s)	162.1	17.8		95.7	17.4		24.6	18.7			28.2	
Level of Service	F	В		F	В		С	В			С	
Approach Delay (s)		21.2			20.6			23.5			28.2	
Approach LOS		С			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			21.7	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.67									
Actuated Cycle Length (s)			60.7		um of los				16.0			
Intersection Capacity Utiliz	ation		55.4%	10	CU Level	of Service	•		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ř,	7.		Jac.	7.		Jac.	130		1	1>	
Volume (vph)	29	162	320	123	263	5	303	19	86	10	69	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.90		1.00	1.00		1.00	0.88		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1677		1770	1858		1770	1635		1770	1787	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1677		1770	1858		1770	1635		1770	1787	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	176	348	134	286	5	329	21	93	11	75	28
RTOR Reduction (vph)	0	82	0	0	1	0	0	62	0	0	19	0
Lane Group Flow (vph)	32	442	0	134	290	0	329	52	0	11	84	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.8	23.7		7.1	29.0		15.7	24.3		0.7	9.3	
Effective Green, g (s)	1.8	23.7		7.1	29.0		15.7	24.3		0.7	9.3	
Actuated g/C Ratio	0.03	0.33		0.10	0.40		0.22	0.34		0.01	0.13	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	44	553		175	750		387	553		17	231	
v/s Ratio Prot	0.02	c0.26		c0.08	0.16		c0.19	0.03		0.01	c0.05	
v/s Ratio Perm												
v/c Ratio	0.73	0.80		0.77	0.39		0.85	0.09		0.65	0.36	
Uniform Delay, d1	34.8	21.9		31.5	15.1		26.9	16.2		35.4	28.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	45.3	7.9		17.9	0.3		16.2	0.1		62.0	1.0	
Delay (s)	80.0	29.8		49.5	15.5		43.1	16.3		97.4	29.5	
Level of Service	F	С		D	В		D	В		F	С	
Approach Delay (s)		32.7			26.2			36.2			36.1	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			32.1	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.74									
Actuated Cycle Length (s)	,		71.8	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ition		68.4%		U Level)		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 12: El Dorado Hills Blvd. & Francisco Dr. Cumulative AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	71		4		140	10		18	1	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	51	485	48	66	46	407	146	42	129	355	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	55	527	52	72	50	442	159	46	140	386	5
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	58	527	174	442	204	140	391					
Volume Left (vph)	2	0	52	442	0	140	0					
Volume Right (vph)	0	527	50	0	46	0	5					
Hadj (s)	0.04	-0.57	-0.08	0.53	-0.12	0.53	0.02					
Departure Headway (s)	7.2	3.2	6.7	6.6	6.0	6.8	6.3					
Degree Utilization, x	0.12	0.47	0.32	0.82	0.34	0.27	0.68					
Capacity (veh/h)	448	1116	506	531	586	508	550					
Control Delay (s)	11.2	9.0	12.8	31.6	10.8	11.1	20.7					
Approach Delay (s)	9.2		12.8	25.1		18.1						
Approach LOS	Α		В	D		С						
Intersection Summary												
Delay			17.3									
Level of Service			С									
Intersection Capacity Utilization	on		68.0%	IC	U Level	of Service			С			
Analysis Period (min)			15									

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	ň	j ^e r	44	ř.	14.64	^			
Volume (vph)	494	189	344	393	329	917			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	0.95	1.00	0.97	0.95			
Frt	1.00	0.85	1.00	0.85	1.00	1.00			
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00			
Satd. Flow (prot)	1770	1583	3539	1583	3433	3539			
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00			
Satd. Flow (perm)	1770	1583	3539	1583	3433	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	537	205	374	427	358	997			
RTOR Reduction (vph)	0	128	0	325	0	0			
Lane Group Flow (vph)	537	77	374	102	358	997			
Turn Type	NA	Perm	NA	Perm	Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8		2					
Actuated Green, G (s)	19.6	19.6	12.4	12.4	8.1	24.5			
Effective Green, g (s)	19.6	19.6	12.4	12.4	8.1	24.5			
Actuated g/C Ratio	0.38	0.38	0.24	0.24	0.16	0.47			
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	665	595	842	376	533	1664			
v/s Ratio Prot	c0.30	000	0.11	0.0	0.10	c0.28			
v/s Ratio Perm	00.00	0.05	0	0.06	0.10	00.20			
v/c Ratio	0.81	0.13	0.44	0.27	0.67	0.60			
Uniform Delay, d1	14.6	10.7	16.9	16.2	20.7	10.2			
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	7.1	0.1	0.4	0.4	3.3	0.6			
Delay (s)	21.7	10.8	17.3	16.6	24.1	10.8			
Level of Service	С	В	В	В	С	В			
Approach Delay (s)	18.7		16.9			14.3			
Approach LOS	В		В			В			
Intersection Summary									
HCM 2000 Control Delay			16.1	н	CM 2000	Level of Servi	20	В	
HCM 2000 Control Delay	acity ratio		0.76	П	CIVI 2000	Level of Selvi	DC .	В	
Actuated Cycle Length (s)	acity ratio		52.1	9	um of los	t time (s)		12.0	
Intersection Capacity Utilization	ation		59.4%			of Service		12.0 B	
Analysis Period (min)	audii		15	IC	o Level	OI SELVICE		Б	
c Critical Lane Group			10						
c Gillicai Laile Gioup									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	"	To		,Ac	4		140	44	P ^a	19	41>	
Volume (vph)	30	20	114	715	20	124	32	772	390	86	1644	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.87		1.00	0.96		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1625		1681	1638		1770	3539	1583	1770	3529	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1625		1681	1638		1770	3539	1583	1770	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	22	124	777	22	135	35	839	424	93	1787	34
RTOR Reduction (vph)	0	27	0	0	11	0	0	0	0	0	1	0
Lane Group Flow (vph)	33	119	0	474	449	0	35	839	424	93	1820	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	9.0	9.0		44.2	44.2		3.0	72.2	150.0	10.4	79.6	
Effective Green, g (s)	9.0	9.0		44.2	44.2		3.0	72.2	150.0	10.4	79.6	
Actuated g/C Ratio	0.06	0.06		0.29	0.29		0.02	0.48	1.00	0.07	0.53	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	106	97		495	482		35	1703	1583	122	1872	
v/s Ratio Prot	0.02	c0.07		c0.28	0.27		c0.02	0.24		0.05	c0.52	
v/s Ratio Perm									0.27			
v/c Ratio	0.31	1.22		0.96	0.93		1.00	0.49	0.27	0.76	0.97	
Uniform Delay, d1	67.5	70.5		52.0	51.4		73.5	26.4	0.0	68.6	34.1	
Progression Factor	1.00	1.00		1.00	1.00		0.64	0.26	1.00	1.00	1.00	
Incremental Delay, d2	0.6	163.4		29.4	24.8		148.5	1.0	0.4	22.0	15.2	
Delay (s)	68.1	233.9		81.4	76.2		195.2	7.8	0.4	90.6	49.3	
Level of Service	Е	F		F	Е		F	Α	Α	F	D	
Approach Delay (s)		203.4			78.9			10.4			51.3	
Approach LOS		F			Е			В			D	
Intersection Summary												
HCM 2000 Control Delay			51.3	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capac	ity ratio		0.98									
Actuated Cycle Length (s)			150.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utilizat	ion		96.3%	IC	U Level	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch
16: El Dorado Hills Blvd. & Saratoga Wy. (South)

	•	→	•	•	—	•	•	†	/	-	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	4	71	54,	T.		Jac.	ተተጉ		19	41>	
Volume (vph)	31	11	203	16	13	63	191	1100	42	137	2309	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.91		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1681	1728	1583	1770	1631		1770	5057		1770	3533	
Flt Permitted	0.95	0.98	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1681	1728	1583	1770	1631		1770	5057		1770	3533	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	12	221	17	14	68	208	1196	46	149	2510	29
RTOR Reduction (vph)	0	0	211	0	65	0	0	2	0	0	0	C
Lane Group Flow (vph)	23	23	10	17	17	0	208	1240	0	149	2539	0
Turn Type	Split	NA	Prot	Split	NA		Prot	NA		Prot	NA	
Protected Phases	7	7	7	. 8	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	6.9	6.9	6.9	6.1	6.1		12.0	98.3		21.0	107.3	
Effective Green, g (s)	6.9	6.9	6.9	6.1	6.1		12.0	100.0		21.0	109.0	
Actuated g/C Ratio	0.05	0.05	0.05	0.04	0.04		0.08	0.67		0.14	0.73	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.7		4.0	5.7	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	4.2		0.2	4.2	
Lane Grp Cap (vph)	77	79	72	71	66		141	3371		247	2567	
v/s Ratio Prot	c0.01	0.01	0.01	0.01	c0.01		c0.12	0.25		0.08	c0.72	
v/s Ratio Perm												
v/c Ratio	0.30	0.29	0.14	0.24	0.25		1.48	0.37		0.60	0.99	
Uniform Delay, d1	69.2	69.2	68.7	69.7	69.7		69.0	11.0		60.6	19.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.95	0.18		0.80	0.52	
Incremental Delay, d2	0.8	0.7	0.3	0.6	0.7		243.7	0.3		0.9	7.8	
Delay (s)	70.0	69.9	69.0	70.3	70.5		309.3	2.3		49.6	18.2	
Level of Service	Е	Е	Е	Е	E		F	Α		D	В	
Approach Delay (s)		69.2			70.5			46.3			19.9	
Approach LOS		Е			Е			D			В	
Intersection Summary												
HCM 2000 Control Delay			32.4	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Cap	acity ratio		0.96									
Actuated Cycle Length (s)			150.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliz	ation		93.1%	IC	CU Level	of Service	9		F			
Analysis Period (min)			15									
Analysis Period (min) c Critical Lane Group			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	4	24	,te	4	79'	34,40	ተተገ»		Ja.	444	#
Volume (vph)	190	87	776	168	199	58	906	1085	169	69	1665	794
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	0.97	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1737	1583	1681	1763	1583	3433	4982		1770	5085	1583
Flt Permitted	0.95	0.98	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1681	1737	1583	1681	1763	1583	3433	4982		1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	95	843	183	216	63	985	1179	184	75	1810	863
RTOR Reduction (vph)	0	0	0	0	0	53	0	13	0	0	0	0
Lane Group Flow (vph)	149	153	843	165	234	10	985	1350	0	75	1810	863
Turn Type	Split	NA	Free	Split	NA	Perm	Prot	NA		Prot	NA	Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			Free			8						Free
Actuated Green, G (s)	15.4	15.4	150.0	23.2	23.2	23.2	43.9	82.5		12.9	51.5	150.0
Effective Green, g (s)	15.4	15.4	150.0	23.2	23.2	23.2	43.9	82.5		12.9	51.5	150.0
Actuated g/C Ratio	0.10	0.10	1.00	0.15	0.15	0.15	0.29	0.55		0.09	0.34	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		2.2	2.2	2.2	3.0	3.5		2.0	2.5	
Lane Grp Cap (vph)	172	178	1583	259	272	244	1004	2740		152	1745	1583
v/s Ratio Prot	c0.09	0.09		0.10	c0.13		c0.29	0.27		0.04	c0.36	
v/s Ratio Perm			0.53			0.01						0.55
v/c Ratio	0.87	0.86	0.53	0.64	0.86	0.04	0.98	0.49		0.49	1.04	0.55
Uniform Delay, d1	66.3	66.2	0.0	59.5	61.8	53.9	52.6	20.8		65.4	49.2	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.45	0.57		0.72	0.64	1.00
Incremental Delay, d2	33.7	31.4	1.3	4.0	22.6	0.0	19.1	0.4		0.3	23.3	0.4
Delay (s)	100.0	97.7	1.3	63.5	84.5	54.0	42.7	12.3		47.6	55.0	0.4
Level of Service	F	F	Α	Е	F	D	D	В		D	Е	Α
Approach Delay (s)		27.0			72.8			25.1			37.7	
Approach LOS		С			Е			С			D	
Intersection Summary												
HCM 2000 Control Delay			33.9	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.97									
Actuated Cycle Length (s)			150.0		um of los				16.0			
Intersection Capacity Utiliza	ation		89.4%	IC	U Level	of Service)		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	7	4	54,				34 34	44			44	7
Volume (vph)	471	0	148	0	0	0	791	775	0	0	1376	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.91	0.95				0.97	0.95			0.95	1.00
Frt	1.00	0.99	0.85				1.00	1.00			1.00	0.8
Flt Protected	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1604	1504				3433	3539			3539	1583
Flt Permitted	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1604	1504				3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	512	0	161	0	0	0	860	842	0	0	1496	643
RTOR Reduction (vph)	0	50	120	0	0	0	0	0	0	0	0	25
Lane Group Flow (vph)	266	212	25	0	0	0	860	842	0	0	1496	386
Turn Type	Split	NA	Perm				Prot	NA			NA	Pern
Protected Phases	4	4					5	2			6	
Permitted Phases	•	•	4					_			Ū	
Actuated Green, G (s)	15.8	15.8	15.8				23.2	66.2			39.0	39.0
Effective Green, g (s)	15.8	15.8	15.8				23.2	66.2			39.0	39.0
Actuated g/C Ratio	0.18	0.18	0.18				0.26	0.74			0.43	0.43
Clearance Time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	295	281	264				884	2603			1533	68
v/s Ratio Prot	c0.16	0.13					c0.25	0.24			c0.42	
v/s Ratio Perm			0.02									0.24
v/c Ratio	0.90	0.75	0.10				0.97	0.32			0.98	0.5
Uniform Delay, d1	36.3	35.2	31.1				33.1	4.1			25.0	19.
Progression Factor	1.00	1.00	1.00				1.00	1.00			0.75	0.73
Incremental Delay, d2	28.6	10.9	0.2				23.7	0.3			3.3	0.
Delay (s)	64.9	46.1	31.3				56.7	4.5			22.0	14.
Level of Service	Е	D	С				Е	A			C	-
Approach Delay (s)		50.3			0.0			30.9			19.6	
Approach LOS		D			Α			С			В	
Intersection Summary												
HCM 2000 Control Delay			28.4	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.96									
Actuated Cycle Length (s)			90.0		um of los				12.0			
Intersection Capacity Utiliz	ation		85.2%	IC	CU Level	of Service	9		Е			
Analysis Period (min)			15									
c Critical Lane Group												

Movement	FRF	FRI	EBK	WBL	WBI	WBK	NBL	NRI	NRK	SBL	SBT	SBR
Lane Configurations			14,54			74		444	i"	19	1111	
Volume (vph)	0	0	1606	0	0	462	0	1698	245	724	1885	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1746	0	0	502	0	1846	266	787	2049	0
RTOR Reduction (vph)	0	0	5	0	0	0	0	0	72	0	0	0
Lane Group Flow (vph)	0	0	1741	0	0	502	0	1846	194	787	2049	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			121.6			150.0		66.4	66.4	75.6	96.0	
Effective Green, q (s)			121.6			150.0		66.4	66.4	75.6	96.0	
Actuated g/C Ratio			0.81			1.00		0.44	0.44	0.50	0.64	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			2333			1611		2250	700	892	4101	
v/s Ratio Prot			0.23					c0.36		c0.44	0.32	
v/s Ratio Perm			0.40			0.31			0.12			
v/c Ratio			0.75			0.31		0.82	0.28	0.88	0.50	
Uniform Delay, d1			6.8			0.0		36.6	26.6	33.2	14.3	
Progression Factor			1.00			1.00		1.00	1.00	0.35	0.43	
Incremental Delay, d2			1.3			0.5		3.5	1.0	5.5	0.2	
Delay (s)			8.1			0.5		40.1	27.5	17.2	6.4	
Level of Service			Α			Α		D	С	В	Α	
Approach Delay (s)		8.1			0.5			38.5			9.4	
Approach LOS		Α			Α			D			Α	
Intersection Summary												
HCM 2000 Control Delay			17.0	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.85									
Actuated Cycle Length (s)			150.0		um of los				8.0			
Intersection Capacity Utilization			90.2%	IC	U Level	of Service)		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Colume (ynh)		۶	→	\rightarrow	•	←	•	•	†	/	-	ļ	1
Valume (lyph) 0 0 0 0 701 0 553 466 780 0 0 1267 639 deal Flow (lyphpl) 1900 1900 1900 1900 1900 1900 1900 190	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
deal Flow (riphpl) 1900 1900 1900 1900 1900 1900 1900 190	Lane Configurations				Jal.	4	74	14	44			44	#
Total Lost time (s)	Volume (vph)	0	0	0	701	0	553	466	780	0	0	1267	639
Company Comp	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Filt Protected	Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
The Protected	Lane Util. Factor				0.95	0.91	0.95	1.00	0.95			0.95	1.00
Sald, Flow (prot) 1681 1553 1504 1770 3539 3539 1583 Fit Permitted 0.95 0.97 1.00 0.95 1.00 1.00 1.00 1.00 2092 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Frt				1.00	0.94	0.85	1.00	1.00			1.00	0.85
The Permitted	Flt Protected												
Satid Flow (perm) 1681 1553 1504 1770 3539 3539 1583 1584 1770 3639 3639 1583 1584 1770 3639 3639 1583 1584 1770 3639 3639 1583 1584 1770 3639 3639 1583 1584 1770 3639 3639 1583 1584 1770	Satd. Flow (prot)					1553			3539			3539	
Peak-hour factor, PHF	Flt Permitted					0.97		0.95					
Adj. Flow (vph)	Satd. Flow (perm)				1681	1553	1504	1770	3539			3539	1583
Name	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Anne Group Flow (vph)	Adj. Flow (vph)	0	0	0	762	0	601	507	848	0	0	1377	695
Furn Type	RTOR Reduction (vph)	0	0	0	0	46	156	0	0	0	0	0	0
Protected Phases Permitted Phases Remitted Phases Remi	Lane Group Flow (vph)	0	0	0	472	412	277	507	848	0	0	1377	695
Permitted Phases	Turn Type				Split	NA	Perm	Prot	NA			NA	Free
Actuated Green, G (s) 22.0 22.0 22.0 23.0 60.0 33.0 90.0 cffective Green, g (s) 22.0 22.0 22.0 22.0 23.0 60.0 33.0 90.0 33.0 90.0 22.0 22.0 22.0 22.0 23.0 60.0 33.0 90.0 22.0 22.0 22.0 22.0 22.0 23.0 60.0 33.0 90.0 22.0 22.0 22.0 22.0 22.0 22.0 23.0 60.0 33.0 90.0 22.0 22.0 22.0 22.0 22.0 22.0 22	Protected Phases				8	8		5	2			6	
Effective Green, g (s)	Permitted Phases						8						Free
Actuated g/C Ratio 0.24 0.24 0.24 0.26 0.67 0.37 1.00 Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 //ehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 //s Ratio Prot 0.28 0.27 0.29 0.24 0.39 //s Ratio Perm 0.18 0.18 0.44 //c Ratio Perm 0.18 0.18 0.06 0.44 //c Ratio Perm 0.18 0.08 0.08 0.00 //copression Factor 0.10 0.0 0.0 0.75 0.12 0.36 0.08 0.00 //copression Factor 0.10 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.0 0.0 0.73 0.93 0.83 0.08 //copression Factor 0.10 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Actuated Green, G (s)				22.0	22.0	22.0	23.0	60.0			33.0	90.0
Activated College	Effective Green, g (s)				22.0	22.0	22.0	23.0	60.0			33.0	90.0
//ehicle Extension (s) 3.0 4.0 4.4 7.0 4.0 4.0 3.1 3.0 4.0 4.0 4.0 4.0 3.1 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Actuated g/C Ratio				0.24	0.24	0.24	0.26	0.67			0.37	1.00
Lane Grp Cap (vph)	Clearance Time (s)						4.0	4.0					
\(\frac{1}{1}\) Ratio Prot \(\frac{1}{2}\) Ratio Prot \(\frac{1}{2}\) Ratio Perm \(\frac{1}{2}\) Ratio \(\frac{1}\) Ratio \(\frac{1}{2}\) Ratio \(\frac{1}{2}\) Ratio \(\frac	Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
S Ratio Perm	Lane Grp Cap (vph)				410	379	367	452	2359			1297	1583
\(\text{Ratio} \\ \text{1.15} \\ \text{1.09} \\ \text{0.75} \\ \text{1.12} \\ \text{0.36} \\ \text{1.06} \\ \text{0.44} \\ \text{Driform Delay, d1} \\ \text{34.0} \\ \text{34.0} \\ \text{34.0} \\ \text{34.0} \\ \text{31.5} \\ \text{33.5} \\ \text{6.6} \\ \text{28.5} \\ \text{0.0} \\ \text{0.70 gression Factor} \\ \text{1.00} \\ \text{1.00} \\ \text{1.00} \\ \text{1.00} \\ \text{1.00} \\ \text{0.73} \\ \text{0.93} \\ \text{0.83} \\ \text{1.00} \\ \text{0.93} \\ \text{0.85} \\ \text{0.04} \\ \text{39.5} \\ \text{0.6} \\ \text{0.62} \\ \text{0.92} \\ \text{6.71.5} \\ \text{8.5} \\ \text{77.3} \\ \text{0.4} \\ \text{0.0} \\ \text{10.19} \\ \text{6.5} \\ \text{63.2} \\ \text{0.6} \\ \text{0.22} \\ \text{Approach Delay (s)} \\ \text{0.0} \	v/s Ratio Prot				c0.28	0.27		c0.29	0.24			c0.39	
Uniform Delay, d1	v/s Ratio Perm						0.18						0.44
Progression Factor 1.00 1.00 1.00 0.73 0.93 0.83 1.00 ncremental Delay, d2 92.6 71.5 8.5 77.3 0.4 39.5 0.6 Delay (s) 126.6 105.5 40.0 101.9 6.5 63.2 0.6 Evel of Service F F D F A E Approach Delay (s) 0.0 92.0 42.2 42.2 Approach LOS A F D D D D The section Summary HCM 2000 Control Delay 56.4 HCM 2000 Level of Service E HCM 2000 Volume to Capacity ratio 1.10 Actuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 Intersection Capacity Utilization 95.9% ICU Level of Service F Analysis Period (min) 15	v/c Ratio				1.15	1.09	0.75	1.12	0.36			1.06	0.44
Name	Uniform Delay, d1				34.0	34.0	31.5	33.5	6.6			28.5	0.0
Delay (s)	Progression Factor				1.00	1.00	1.00	0.73	0.93			0.83	1.00
Level of Service	Incremental Delay, d2				92.6		8.5	77.3				39.5	0.6
Approach Delay (s) 0.0 92.0 42.2 42.2 Approach LOS A F D D D **Netresection Summary** HCM 2000 Control Delay 56.4 HCM 2000 Level of Service E HCM 2000 Volume to Capacity ratio 1.10 Actuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 Intersection Capacity Utilization 95.9% ICU Level of Service F Analysis Period (min) 15	Delay (s)				126.6	105.5	40.0	101.9	6.5			63.2	0.6
Approach LOS	Level of Service				F		D	F					Α
Actuated Cycle Length (s) Sum of lost time (s) ICU Level of Service F	Approach Delay (s)		0.0										
HCM 2000 Control Delay 56.4 HCM 2000 Level of Service E	Approach LOS		Α			F			D			D	
4CM 2000 Volume to Capacity ratio 1.10 Actuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 Intersection Capacity Utilization 95.9% ICU Level of Service F Analysis Period (min) 15	Intersection Summary												
Actuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 ntersection Capacity Utilization 95.9% ICU Level of Service F Analysis Period (min) 15	HCM 2000 Control Delay			56.4	Н	CM 2000	Level of	Service		E			
ntersection Capacity Utilization 95.9% ICU Level of Service F Analysis Period (min) 15	HCM 2000 Volume to Capacity	ratio		1.10									
ntersection Capacity Utilization 95.9% ICU Level of Service F Analysis Period (min) 15	Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			12.0			
Analysis Period (min) 15		1		95.9%	IC	CU Level	of Service	9		F			
	Analysis Period (min)			15									

	•	•	†	~	-	↓			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	75	PF.	† 1»		197	++			
Volume (vph)	255	246	1082	252	1	1650			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95			
Frt	1.00	0.85	0.97		1.00	1.00			
Flt Protected	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (prot)	1770	1583	3439		1770	3539			
Flt Permitted	0.95	1.00	1.00		0.95	1.00			
Satd. Flow (perm)	1770	1583	3439		1770	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	277	267	1176	274	1	1793			
RTOR Reduction (vph)	0	113	18	0	0	0			
Lane Group Flow (vph)	277	154	1432	0	1	1793			
Turn Type	NA	Perm	NA		Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8							
Actuated Green, G (s)	18.6	18.6	58.6		0.8	63.4			
Effective Green, g (s)	18.6	18.6	58.6		0.8	63.4			
Actuated g/C Ratio	0.21	0.21	0.65		0.01	0.70			
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	365	327	2239		15	2493			
v/s Ratio Prot	c0.16		0.42		0.00	c0.51			
v/s Ratio Perm		0.10							
v/c Ratio	0.76	0.47	0.64		0.07	0.72			
Uniform Delay, d1	33.6	31.4	9.4		44.2	8.0			
Progression Factor	1.00	1.00	1.56		1.00	1.00			
Incremental Delay, d2	8.8	1.1	1.2		1.9	1.8			
Delay (s)	42.4	32.4	15.8		46.1	9.8			
Level of Service	D	С	В		D	Α			
Approach Delay (s)	37.5		15.8			9.8			
Approach LOS	D		В			Α			
Intersection Summary									
HCM 2000 Control Delay			16.1	Н	CM 2000	Level of Servi	ce	В	
HCM 2000 Volume to Capa	acity ratio		0.77						
Actuated Cycle Length (s)			90.0		um of los			12.0	
Intersection Capacity Utiliza	ation		66.4%	IC	CU Level	of Service		С	
Analysis Period (min)			15						
c Critical Lane Group									

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Dixon Ranch 23: Harvard Way & Silva Valley Pkwy.

Lane Configurations		•	→	\rightarrow	•	←	•	•	†	/	-	ţ	4
Volume (vph)	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl)	Lane Configurations	ň	ቀኩ		34	47		Jal.	44	ř.	19	41>	
Total Lost time (s)	Volume (vph)	161	83	166	535	230	360	150	658	255	168	698	242
Lane Util. Factor 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.96 Fit 1.00 0.90 1.00 0.91 1.00 0.95 1.00 0.96 Fit 1.00 0.95 1.00 0.95 1.00 0.96 Fit 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.96 Fit 1.00 0.95 1.00 0.00 0.95 1.00 0.00 0.95 1.00 0.00 0.95 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Fit Protected	Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Fit Protected 0.95 1.00 0.95 1.00 0.95 1.00 1.00 0.95 1.	Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Satd. Flow (prot) 1770 3185 1770 3215 1770 3539 1583 1770 3403 Fit Permitted 0.95 1.00 0.95 1.0	Frt	1.00	0.90		1.00	0.91		1.00	1.00	0.85	1.00	0.96	
Fit Permitted 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 1.00 0.95 1.00	Flt Protected												
Satd. Flow (perm) 1770 3185 1770 3215 1770 3539 1583 1770 3403	Satd. Flow (prot)		3185			3215		1770	3539	1583	1770	3403	
Peak-hour factor, PHF	Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Adj. Flow (vph)	Satd. Flow (perm)	1770	3185		1770	3215		1770	3539	1583	1770	3403	
RTOR Reduction (vph)	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 175 105 0 582 448 0 163 715 139 183 1000 0	Adj. Flow (vph)	175	90	180	582	250	391	163	715	277	183	759	263
Turn Type	RTOR Reduction (vph)	0	165	0	0	193	0	0	0	138	0	22	0
Protected Phases 7 4 3 8 5 2 1 6 Permitted Phases 2 Actuated Green, G (s) 18.3 11.1 48.0 40.8 14.0 41.0 41.0 17.7 44.7 Effective Green, g (s) 18.3 11.1 48.0 40.8 14.0 41.0 41.0 17.7 44.7 Actuated g/C Ratio 0.13 0.08 0.35 0.30 0.10 0.30 0.30 0.13 0.33 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Lane Group Flow (vph)	175	105	0	582	448	0	163	715	139	183	1000	0
Permitted Phases	Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Actuated Green, G (s) 18.3 11.1 48.0 40.8 14.0 41.0 41.0 17.7 44.7 Effective Green, g (s) 18.3 11.1 48.0 40.8 14.0 41.0 41.0 17.7 44.7 Actuated g/C Ratio 0.13 0.08 0.35 0.30 0.10 0.30 0.30 0.13 0.33 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Protected Phases	7	4		3	8		5	2		1	6	
Effective Green, g (s) 18.3 11.1 48.0 40.8 14.0 41.0 17.7 44.7 Actuated g/C Ratio 0.13 0.08 0.35 0.30 0.10 0.30 0.30 0.13 0.33 Clearance Time (s) 4.0 5.3 4.0 5.3 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	Permitted Phases									2			
Actuated g/C Ratio 0.13 0.08 0.35 0.30 0.10 0.30 0.30 0.13 0.33 Clearance Time (s) 4.0 5.3 4.0 5.3 4.0 5.3 5.3 4.0 5.3 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Actuated Green, G (s)	18.3	11.1		48.0	40.8		14.0	41.0	41.0	17.7	44.7	
Clearance Time (s) 4.0 5.3 3.0	Effective Green, g (s)	18.3	11.1		48.0	40.8		14.0	41.0	41.0	17.7	44.7	
Vehicle Extension (s) 3.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	Actuated g/C Ratio	0.13	0.08		0.35	0.30		0.10	0.30	0.30	0.13	0.33	
Lane Grp Cap (vph) 237 259 622 961 181 1063 475 229 1115 v/s Ratio Prot 0.10 0.03 c0.33 c0.14 c0.09 0.20 0.10 c0.29 v/s Ratio Perm 0.09 0.67 0.29 0.80 0.90 v/s Ratio Perm 0.09 v/s Ratio Perm 0.09 0.67 0.29 0.80 0.90 v/s Ratio Perm 0.09 v/s Ratio Perm 0.09 0.67 0.29 0.80 0.90 v/s Ratio Perm 0.09 0.00 1.00 1.00 1.00 1.00 1.00 1.00	Clearance Time (s)		5.3					4.0		5.3		5.3	
w/s Ratio Prot 0.10 0.03 c0.33 c0.14 c0.09 0.20 0.10 c0.29 w/s Ratio Perm 0.09 0.67 0.90 0.67 0.29 0.80 0.90 ulniform Delay, d1 56.7 59.5 42.7 38.9 60.5 41.8 36.6 57.6 43.7 Progression Factor 1.00 </td <td>Vehicle Extension (s)</td> <td>3.0</td> <td>3.0</td> <td></td> <td>3.0</td> <td>3.0</td> <td></td> <td>3.0</td> <td>3.0</td> <td>3.0</td> <td>3.0</td> <td>3.0</td> <td></td>	Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
\(\text{Vs}\) Ratio \(\text{Perm}\) \(\text{Vs}\) Ratio \(\text{Perm}\) \(\text{Vs}\) Ratio \(\text{0.74}\) \(\text{0.40}\) \(\text{0.94}\) \(\text{0.47}\) \(\text{0.90}\) \(\text{0.67}\) \(\text{0.29}\) \(\text{0.80}\) \(\text{0.90}\) \(\text{Uniform Delay, d1}\) \(\text{56.7}\) \(\text{59.5}\) \(\text{42.7}\) \(\text{38.9}\) \(\text{60.5}\) \(\text{41.8}\) \(\text{36.6}\) \(\text{57.6}\) \(\text{43.7}\) \(\text{Progression Factor}\) \(\text{1.00}\) \(\text{1.7}\) \(\text{0.3}\) \(\text{17.7}\) \(\text{9.6}\) \(\text{59.6}\) \(\text{29.3}\) \(\text{3.00.5}\) \(\text{3.5}\) \(\text{36.9}\) \(\text{75.1}\) \(\text{53.2}\) \(\text{Level of Service}\) \(\text{E}\) \(\text{D}\) \(\text{D}\) \(\text{D}\) \(\text{56.5}\) \(\text{Approach LOS}\) \(\text{E}\) \(\text{D}\) \(\t	Lane Grp Cap (vph)	237	259		622	961		181	1063	475	229	1115	
v/c Ratio 0.74 0.40 0.94 0.47 0.90 0.67 0.29 0.80 0.90 Uniform Delay, d1 56.7 59.5 42.7 38.9 60.5 41.8 36.6 57.6 43.7 Progression Factor 1.00	v/s Ratio Prot	0.10	0.03		c0.33	c0.14		c0.09	0.20		0.10	c0.29	
Uniform Delay, d1 56.7 59.5 42.7 38.9 60.5 41.8 36.6 57.6 43.7 Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	v/s Ratio Perm									0.09			
Progression Factor 1.00 2.00 2.00 2.00 2.00 2.00 2.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 <td>v/c Ratio</td> <td>0.74</td> <td>0.40</td> <td></td> <td>0.94</td> <td>0.47</td> <td></td> <td>0.90</td> <td>0.67</td> <td>0.29</td> <td>0.80</td> <td>0.90</td> <td></td>	v/c Ratio	0.74	0.40		0.94	0.47		0.90	0.67	0.29	0.80	0.90	
Incremental Delay, d2	Uniform Delay, d1	56.7	59.5		42.7	38.9		60.5	41.8	36.6	57.6	43.7	
Delay (s) 68.1 60.5 64.2 39.3 100.5 43.5 36.9 75.1 53.2 Level of Service E E E D F D D E D Approach LOS E D D D E E E D D E E E D D E E D D E D D HCM 2000 Control Delay D HCM 2000 Level of Service D D HCM 2000 Level of Service D D HCM 2000 Level of Service D HCM 2000 L	Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Level of Service E E E D F D D E D Approach Delay (s) 63.5 51.1 50.0 56.5 56.5 Approach LOS E D D E Intersection Summary HCM 2000 Control Delay 53.8 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.88 Actuated Cycle Length (s) 18.6 Intersection Capacity Utilization 88.8% ICU Level of Service E Analysis Period (min) 15	Incremental Delay, d2				21.5			40.0		0.3	17.5	9.6	
Approach Delay (s) 63.5 51.1 50.0 56.5 Approach LOS E D D E Intersection Summary HCM 2000 Control Delay 53.8 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.88 Actuated Cycle Length (s) 136.4 Sum of lost time (s) 18.6 Intersection Capacity Utilization 88.8% ICU Level of Service E Analysis Period (min) 15	Delay (s)	68.1	60.5		64.2	39.3		100.5	43.5	36.9		53.2	
Approach LOS E D D E Intersection Summary Intersection Summary HCM 2000 Control Delay 53.8 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.88 Actuated Cycle Length (s) 136.4 Sum of lost time (s) 18.6 Intersection Capacity Utilization 88.8% ICU Level of Service E Analysis Period (min) 15	Level of Service	Е			Е			F		D	Е		
Intersection Summary	Approach Delay (s)					51.1							
HCM 2000 Control Delay 53.8 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.88 Actuated Cycle Length (s) 136.4 Sum of lost time (s) 18.6 Intersection Capacity Utilization 88.8% ICU Level of Service E Analysis Period (min) 15	Approach LOS		E			D			D			E	
HCM 2000 Volume to Capacity ratio 0.88 Actuated Cycle Length (s) 136.4 Sum of lost time (s) 18.6 Intersection Capacity Utilization 88.8% ICU Level of Service E Analysis Period (min) 15	Intersection Summary												
Actuated Cycle Length (s) 136.4 Sum of lost time (s) 18.6 Intersection Capacity Utilization 88.8% ICU Level of Service E Analysis Period (min) 15	HCM 2000 Control Delay			53.8	Н	ICM 2000	Level of	Service		D			
Actuated Cycle Length (s) 136.4 Sum of lost time (s) 18.6 Intersection Capacity Utilization 88.8% ICU Level of Service E Analysis Period (min) 15		acity ratio		0.88									
Analysis Period (min) 15	Actuated Cycle Length (s)			136.4	S	um of los	t time (s)			18.6			
Analysis Period (min) 15		ation		88.8%)		Е			
	Analysis Period (min)			15									
	c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	71	Jal.	Pr-		Jac.	130		1	4	ľ
Volume (vph)	143	175	449	140	82	12	822	406	75	52	269	471
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1827		1770	1819		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1827		1770	1819		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	155	190	488	152	89	13	893	441	82	57	292	512
RTOR Reduction (vph)	0	0	430	0	4	0	0	5	0	0	0	232
Lane Group Flow (vph)	155	190	58	152	98	0	893	518	0	57	292	280
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	11.0	15.4	15.4	11.0	15.4		64.0	80.9		7.0	23.9	23.9
Effective Green, g (s)	11.0	15.4	15.4	11.0	15.4		64.0	80.9		7.0	23.9	23.9
Actuated g/C Ratio	0.08	0.12	0.12	0.08	0.12		0.49	0.62		0.05	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	149	220	187	149	215		869	1129		95	341	290
v/s Ratio Prot	c0.09	c0.10		0.09	0.05		c0.50	0.28		0.03	0.16	
v/s Ratio Perm			0.04									c0.18
v/c Ratio	1.04	0.86	0.31	1.02	0.45		1.03	0.46		0.60	0.86	0.97
Uniform Delay, d1	59.7	56.4	52.6	59.7	53.5		33.2	13.1		60.3	51.5	52.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	84.8	27.7	0.9	79.1	1.5		37.8	0.3		9.8	18.6	43.1
Delay (s)	144.5	84.1	53.5	138.8	55.1		70.9	13.4		70.1	70.1	95.9
Level of Service	F	F	D	F	Е		Е	В		Е	Е	F
Approach Delay (s)		77.4			105.2			49.7			85.5	
Approach LOS		Е			F			D			F	
Intersection Summary												
HCM 2000 Control Delay			69.9	Н	CM 2000	Level of	Service		Е			
HCM 2000 Volume to Capa	acity ratio		0.99									
Actuated Cycle Length (s)	,		130.3	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliz	ation		90.0%			of Service)		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 24: Silva Valley Pkwy. & Appian Way Cumulative AM Peak Dixon Ranch 25: Site Dwy RIRO & Green Valley Rd. Cumulative AM Peak

	•	→	•	•	←	•	•	†	<i>></i>	\	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			440			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	43	1	103	198	2	130	31	311	66	44	321	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	47	1	112	215	2	141	34	338	72	48	349	29
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	160	359	443	426								
Volume Left (vph)	47	215	34	48								
Volume Right (vph)	112	141	72	29								
Hadj (s)	-0.33	-0.08	-0.05	0.02								
Departure Headway (s)	8.1	7.5	7.2	7.3								
Degree Utilization, x	0.36	0.75	0.88	0.86								
Capacity (veh/h)	387	450	488	481								
Control Delay (s)	15.7	29.6	43.2	40.4								
Approach Delay (s)	15.7	29.6	43.2	40.4								
Approach LOS	С	D	Е	Е								
Intersection Summary												
Delay			35.6									
Level of Service			Е									
Intersection Capacity Utiliza	ation		63.2%	IC	U Level	of Service			В			
Analysis Period (min)			15									

	-	•	•	•	1		
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1>			4		PH.	_
Volume (veh/h)	338	0	0	716	0	0	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	367	0	0	778	0	0	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)				796			
pX, platoon unblocked					0.62		
vC, conflicting volume			367		1146	367	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			367		927	367	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		100	100	
cM capacity (veh/h)			1191		184	678	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	367	778	0				
Volume Left	0	0	0				
Volume Right	0	0	0				
cSH	1700	1700	1700				
Volume to Capacity	0.22	0.46	0.00				
Queue Length 95th (ft)	0	0	0				
Control Delay (s)	0.0	0.0	0.0				
Lane LOS			Α				
Approach Delay (s)	0.0	0.0	0.0				
Approach LOS			Α				
Intersection Summary							
Average Delay			0.0				_
Intersection Capacity Utiliza	ation		41.0%	IC	U Level	of Service	
Analysis Period (min)			15		. ,		

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Cumulative

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	16	1		,tel	14		140	10			4	ř
Volume (vph)	138	957	36	51	659	100	73	214	92	68	101	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (prot)	1770	1853		1770	1826		1770	1779			1826	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (perm)	1770	1853		1770	1826		1770	1779			1826	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	1040	39	55	716	109	79	233	100	74	110	142
RTOR Reduction (vph)	0	1	0	0	4	0	0	11	0	0	0	123
Lane Group Flow (vph)	150	1078	0	55	821	0	79	322	0	0	184	19
Furn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	12.5	83.5		3.5	74.5		17.0	17.0			19.4	19.4
Effective Green, g (s)	12.5	83.5		3.5	74.5		17.0	17.0			19.4	19.4
Actuated g/C Ratio	0.09	0.59		0.02	0.52		0.12	0.12			0.14	0.14
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
ane Grp Cap (vph)	155	1086		43	955		211	212			248	215
v/s Ratio Prot	c0.08	c0.58		c0.03	0.45		0.04	c0.18			c0.10	
v/s Ratio Perm												0.01
v/c Ratio	0.97	0.99		1.28	0.86		0.37	1.52			0.74	0.09
Uniform Delay, d1	64.7	29.2		69.5	29.4		57.8	62.7			59.1	53.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	61.9	25.5		230.2	8.6		1.9	257.0			12.7	0.3
Delay (s)	126.7	54.7		299.7	38.0		59.7	319.7			71.8	54.1
_evel of Service	F	D		F	D		Е	F			E	С
Approach Delay (s)		63.4			54.3			269.9			64.1	
Approach LOS		Е			D			F			Е	
Intersection Summary												
HCM 2000 Control Delay			90.6	Н	CM 2000	Level of S	Service		F			
HCM 2000 Volume to Cap	acity ratio		1.04									
Actuated Cycle Length (s)	•		142.4	S	um of los	t time (s)			19.0			
Intersection Capacity Utiliz	ation		98.1%	IC	U Level	of Service			F			
Analysis Period (min)			15									
Critical Lane Group												

moremental belay, uz	01.0	20.0	200.2	0.0	1.0	201.0		12.1
Delay (s)	126.7	54.7	299.1	7 38.0	59.7	319.7		71.8
Level of Service	F	D	ı	- D	E	F		Е
Approach Delay (s)		63.4		54.3		269.9		64.1
Approach LOS		Е		D		F		Е
Intersection Summary								
HCM 2000 Control Delay			90.6	HCM 2000 Le	vel of Service		F	
HCM 2000 Volume to Capa	acity ratio		1.04					
Actuated Cycle Length (s)			142.4	Sum of lost tir	ne (s)		19.0	
Intersection Capacity Utiliza	ation	9	98.1%	ICU Level of S	Service		F	
Analysis Period (min)			15					
c Critical Lane Group								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Sela	44	74	140	44	74	34, 36	1 7»		1	4	#
Volume (vph)	485	893	353	195	608	98	348	264	19	123	227	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3503		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3503		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	527	971	384	212	661	107	378	287	21	134	247	247
RTOR Reduction (vph)	0	0	260	0	0	76	0	6	0	0	0	200
Lane Group Flow (vph)	527	971	124	212	661	31	378	302	0	134	247	47
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	14.1	27.4	27.4	11.1	24.4	24.4	11.8	20.8		7.1	16.1	16.1
Effective Green, g (s)	14.1	27.4	27.4	11.1	24.4	24.4	11.8	20.8		7.1	16.1	16.1
Actuated g/C Ratio	0.17	0.32	0.32	0.13	0.29	0.29	0.14	0.25		0.08	0.19	0.19
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	572	1146	512	232	1020	456	478	861		148	354	301
v/s Ratio Prot	c0.15	c0.27		0.12	0.19		c0.11	0.09		0.08	c0.13	
v/s Ratio Perm			0.08			0.02						0.03
v/c Ratio	0.92	0.85	0.24	0.91	0.65	0.07	0.79	0.35		0.91	0.70	0.16
Uniform Delay, d1	34.7	26.7	21.0	36.3	26.3	21.8	35.2	26.3		38.4	32.0	28.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	20.4	6.0	0.2	36.3	1.4	0.1	8.7	0.2		46.7	5.9	0.2
Delay (s)	55.1	32.6	21.2	72.6	27.8	21.9	43.9	26.6		85.1	37.9	28.8
Level of Service	E	С	С	Е	С	С	D	С		F	D	С
Approach Delay (s)		36.6			36.8			36.1			44.4	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			37.7	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.83									
Actuated Cycle Length (s)			84.6		um of los				18.2			
Intersection Capacity Utiliza	ition		72.5%	IC	U Level	of Service	•		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 4: Loch Way & Green Valley Rd

Lane Configurations		۶	→	•	•	←	•	•	†	/	>	ļ	4
Volume (vph) 10 809 382 64 469 6 349 20 106 2 9 Ideal Flow (vphpl) 1900	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl)	Lane Configurations	ň	4	74	Jal.	ĵ.		jąć	130			4	
Total Lost time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.0 Lane Util. Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.97 FIT 1.00 0.95 1.00 0.95 1.00 0.99 5 1.00 0.95 1.00 0.95 1.00 0.99 5 1.00 0.95 1.00 0.99 5 1.00 0.95 1.00 0.99 5 1.00 0.95 1.00 0.99 5 1.00 0.99 5 1.00 0.99 5 1.00 0.99 5 1.00 0.99 5 1.00 0.99 5 1.00 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Volume (vph)	10	809	382	64	469	6	349	20	106	2	9	4
Lane Util. Factor 1.00 0.97 FItPortected 0.95 1.00 1.00 0.95 1.00 0.99 Satd. Flow (prot) 1770 1863 1583 1770 1859 1770 1628 1789 Flt Permitted 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.99 Satd. Flow (perm) 1770 1863 1583 1770 1859 1770 1628 1789 Peak-hour factor, PHF 0.92 0	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Frt 1.00 1.00 0.85 1.00 1.00 1.00 0.87 0.97 Fit Protected 0.95 1.00 1.00 0.95 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.770 1628 1789 1789 Fit Permitted 0.95 1.00 0.95 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 0.92 </td <td>Total Lost time (s)</td> <td>4.0</td> <td>5.7</td> <td>5.7</td> <td>4.0</td> <td>5.7</td> <td></td> <td>4.6</td> <td>4.6</td> <td></td> <td></td> <td>4.0</td> <td></td>	Total Lost time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Fit Protected 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.99 Satd. Flow (prot) 1770 1863 1583 1770 1859 1770 1628 1789 Fit Permitted 0.95 1.00 0.95 1.00 0.95 1.00 0.99 Satd. Flow (perm) 1770 1863 1583 1770 1859 1770 1628 1789 Peak-hour factor, PHF 0.92	Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Satd. Flow (prott) 1770 1863 1583 1770 1859 1770 1628 1789 Flt Permitted 0.95 1.00 1.00 0.95 1.00 0.99 1.00 0.99 99 Satd. Flow (perm) 1770 1863 1583 1770 1859 1770 1628 1789 Peak-hour factor, PHF 0.92 0	Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.87			0.97	
Fit Permitted 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.99 Satd. Flow (perm) 1770 1863 1583 1770 1859 1770 1628 1789 Peak-hour factor, PHF 0.92	Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm) 1770 1863 1583 1770 1859 1770 1628 1789 Peak-hour factor, PHF 0.92	Satd. Flow (prot)	1770	1863	1583	1770	1859		1770	1628			1789	
Peak-hour factor, PHF 0.92 0.00 0.0 0.86 0.0 0.4 4 Lane Group Flow (vph) 11 879 40 50 51 70 517 0.379 51 0.0 0 12 Turn Type Prot NA Permit Turn Prot NA Split NA Split NA <td>Flt Permitted</td> <td>0.95</td> <td>1.00</td> <td>1.00</td> <td>0.95</td> <td>1.00</td> <td></td> <td>0.95</td> <td>1.00</td> <td></td> <td></td> <td>0.99</td> <td></td>	Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Adj. Flow (vph) 11 879 415 70 510 7 379 22 115 2 10 RTOR Reduction (vph) 0 0 92 0 0 0 0 86 0 0 4 Lane Group Flow (vph) 11 879 323 70 517 0 379 51 0 0 12 Turn Type Prot NA Perm Prot NA Split NA Split NA Protected Phases 1 6 5 2 8 8 4 4 Permitted Phases 6 6 5 2 8 8 4 4 Permitted Phases 6 6 5 0 73.0 32.5 32.5 2.6 Effective Green, g (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Actuated g/C Ratio 0.01 0.54 0.04 0.5	Satd. Flow (perm)	1770	1863	1583	1770	1859		1770	1628			1789	
RTOR Reduction (vph) 0 0 92 0 0 0 86 0 0 4 Lane Group Flow (vph) 11 879 323 70 517 0 379 51 0 0 12 Turn Type Prot NA Perm Prot NA Split NA Split NA Protected Phases 1 6 5 2 8 8 4 4 Permitted Phases 6 6 6 5 2 8 8 4 4 Permitted Phases 6 6 5 2 8 8 4 4 Permitted Phases 6 6 5 2 8 8 4 4 Permitted Phases 6 6 5 7 73.0 32.5 32.5 2.6 Effective Green, g (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.5	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 11 879 323 70 517 0 379 51 0 0 12 Turn Type Prot NA Perm Prot NA Split NA Split NA Protected Phases 1 6 5 2 8 8 4 4 Permitted Phases 6 Actuated Green, G (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Effective Green, g (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Actuated g/C Ratio 0.01 0.54 0.54 0.04 0.57 0.25 0.25 0.02 Clearance Time (s) 4.0 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 2.5 Lane Grp Cap (vph) 20 1012 860 69 <td>Adj. Flow (vph)</td> <td>11</td> <td>879</td> <td>415</td> <td>70</td> <td>510</td> <td>7</td> <td>379</td> <td>22</td> <td>115</td> <td>2</td> <td>10</td> <td>4</td>	Adj. Flow (vph)	11	879	415	70	510	7	379	22	115	2	10	4
Turn Type Prot NA Perm Prot NA Split NA Split NA Protected Phases 1 6 5 2 8 8 4 4 Permitted Phases 6 6 6 Actuated Green, G (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Effective Green, g (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Actuated g/C Ratio 0.01 0.54 0.54 0.04 0.57 0.25 0.25 0.02 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.5 3.0 2.5 2.5 2.5 Lane Grp Cap (vph) 20 1012 860 69 1061 449 413 36	RTOR Reduction (vph)	0	0	92	0	0	0	0	86	0	0	4	0
Protected Phases 1 6 5 2 8 8 4 4 Permitted Phases 6 6 6 8 4 4 Actuated Green, G (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Effective Green, g (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Actuated g/C Ratio 0.01 0.54 0.54 0.04 0.57 0.25 0.25 0.02 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 Lane Grp Cap (vph) 20 1012 860 69 1061 449 413 36	Lane Group Flow (vph)	11	879	323	70	517	0	379	51	0	0	12	0
Permitted Phases 6 Actuated Green, G (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Effective Green, g (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Actuated g/C Ratio 0.01 0.54 0.54 0.04 0.57 0.25 0.25 0.02 Clearance Time (s) 4.0 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 Lane Grp Cap (vph) 20 1012 860 69 1061 449 413 36	Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	
Actuated Green, G (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Effective Green, g (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Actuated g/C Ratio 0.01 0.54 0.54 0.04 0.57 0.25 0.25 0.02 Clearance Time (s) 4.0 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 Lane Grp Cap (vph) 20 1012 860 69 1061 449 413 36	Protected Phases	1	6		5	2		. 8	8		4	4	
Effective Green, g (s) 1.5 69.5 69.5 5.0 73.0 32.5 32.5 2.6 Actuated g/C Ratio 0.01 0.54 0.54 0.04 0.57 0.25 0.25 0.02 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 Lane Grp Cap (vph) 20 1012 860 69 1061 449 413 36	Permitted Phases			6									
Actuated g/C Ratio 0.01 0.54 0.54 0.04 0.57 0.25 0.25 0.02 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 Lane Grp Cap (vph) 20 1012 860 69 1061 449 413 36	Actuated Green, G (s)	1.5	69.5	69.5	5.0	73.0		32.5	32.5			2.6	
Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 4.6 4.6 4.0 Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 Lane Grp Cap (vph) 20 1012 860 69 1061 449 413 36	Effective Green, g (s)	1.5	69.5	69.5	5.0	73.0		32.5	32.5			2.6	
Vehicle Extension (s) 2.5 3.0 3.0 2.5 3.0 2.5 2.5 2.5 Lane Grp Cap (vph) 20 1012 860 69 1061 449 413 36	Actuated g/C Ratio	0.01	0.54	0.54	0.04	0.57		0.25	0.25			0.02	
Lane Grp Cap (vph) 20 1012 860 69 1061 449 413 36	Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
======================================	Vehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
	Lane Grp Cap (vph)	20	1012	860	69	1061		449	413			36	
v/s Ratio Prot 0.01 c0.47 c0.04 c0.28 c0.21 0.03 c0.01	v/s Ratio Prot	0.01	c0.47		c0.04	c0.28		c0.21	0.03			c0.01	
v/s Ratio Perm 0.20	v/s Ratio Perm			0.20									
v/c Ratio 0.55 0.87 0.38 1.01 0.49 0.84 0.12 0.34	v/c Ratio	0.55	0.87	0.38	1.01	0.49		0.84	0.12			0.34	
Uniform Delay, d1 62.9 25.3 16.8 61.5 16.3 45.3 36.7 61.8	Uniform Delay, d1	62.9	25.3	16.8	61.5	16.3		45.3	36.7			61.8	
Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2 23.6 8.0 0.3 112.4 0.4 13.3 0.1 4.0	Incremental Delay, d2	23.6	8.0	0.3	112.4	0.4		13.3	0.1			4.0	
Delay (s) 86.5 33.3 17.0 173.9 16.7 58.6 36.8 65.8	Delay (s)	86.5	33.3	17.0	173.9	16.7		58.6	36.8			65.8	
Level of Service F C B F B E D E	Level of Service	F	С	В	F	В		Е	D			E	
Approach Delay (s) 28.6 35.4 52.9 65.8	Approach Delay (s)		28.6			35.4			52.9			65.8	
Approach LOS C D D E	Approach LOS		С			D			D			Ε	
Intersection Summary	Intersection Summary												
HCM 2000 Control Delay 35.6 HCM 2000 Level of Service D	HCM 2000 Control Delay			35.6	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacity ratio 0.84		ity ratio		0.84									
Actuated Cycle Length (s) 127.9 Sum of lost time (s) 18.3		•		127.9	S	um of los	t time (s)			18.3			
Intersection Capacity Utilization 84.0% ICU Level of Service E		ion		84.0%						Е			
Analysis Period (min) 15				15									
c Critical Lane Group													

	-	•	•	•	1			
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	1			4	18	74"	_	
Volume (veh/h)	829	33	5	464	26	5		
Sign Control	Free			Free	Stop			
Grade	0%			0%	0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	901	36	5	504	28	5		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None			None				
Median storage veh)								
Upstream signal (ft)								
pX, platoon unblocked								
vC, conflicting volume			937		1434	919		
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol			937		1434	919		
tC, single (s)			4.1		6.4	6.2		
tC, 2 stage (s)								
tF (s)			2.2		3.5	3.3		
p0 queue free %			99		81	98		
cM capacity (veh/h)			731		146	329		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2				
Volume Total	937	510	28	5				
Volume Left	0	5	28	0				
Volume Right	36	0	0	5				
cSH	1700	731	146	329				
Volume to Capacity	0.55	0.01	0.19	0.02				
Queue Length 95th (ft)	0	1	17	1				
Control Delay (s)	0.0	0.2	35.4	16.1				
Lane LOS		Α	Е	С				
Approach Delay (s)	0.0	0.2	32.3					
Approach LOS			D					
Intersection Summary								
Average Delay			0.8					
Intersection Capacity Utiliza	ation		55.6%	IC	U Level	of Service		
Analysis Period (min)			15					
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	•	→	•	•	\	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		41	19		8/4		
Volume (veh/h)	31	835	467	12	8	19	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	34	908	508	13	9	21	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	521				1489	514	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	521				1489	514	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.3	
p0 queue free %	97				93	96	
cM capacity (veh/h)	1046				132	560	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	941	521	29				
Volume Left	34	0	9				
Volume Right	0	13	21				
cSH	1046	1700	286				
Volume to Capacity	0.03	0.31	0.10				
Queue Length 95th (ft)	2	0.01	8				
Control Delay (s)	0.9	0.0	19.0				
Lane LOS	0.9 A	0.0	13.0 C				
Approach Delay (s)	0.9	0.0	19.0				
Approach LOS	0.3	0.0	13.0 C				
••							
Intersection Summary			0.6				
Average Delay			0.9				
Intersection Capacity Utiliz	zation		79.0%	IC	CU Level o	of Service	
Analysis Period (min)			15				

	•	-	←	•	-	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
ane Configurations		4	10		44		
/olume (veh/h)	15	826	457	6	12	18	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	16	898	497	7	13	20	
Pedestrians							
ane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Jpstream signal (ft)							
X, platoon unblocked							
C, conflicting volume	503				1430	500	
C1, stage 1 conf vol							
C2, stage 2 conf vol							
Cu, unblocked vol	503				1430	500	
C, single (s)	4.1				6.4	6.2	
C, 2 stage (s)							
F (s)	2.2				3.5	3.3	
00 queue free %	98				91	97	
cM capacity (veh/h)	1061				146	571	
Direction, Lane #	EB 1	WB 1	SB 1				
/olume Total	914	503	33				
/olume Left	16	0	13				
/olume Right	0	7	20				
SH	1061	1700	264				
/olume to Capacity	0.02	0.30	0.12				
Queue Length 95th (ft)	1	0	10				
Control Delay (s)	0.4	0.0	20.6				
ane LOS	Α		С				
Approach Delay (s)	0.4	0.0	20.6				
Approach LOS			С				
ntersection Summary							
Average Delay			0.7				
ntersection Capacity Utili	ization		65.5%	IC	U Level	of Service	
Analysis Period (min)			15				

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Lane Configurations		•	-	\rightarrow	•	←	•	•	†	/	-	ļ	4
Volume (véh/h)	Movement		EBT	EBR		WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Free	Lane Configurations	"	7.		146				440			4	
Grade 0,% 0,% 0,% 0,% 0,% 0,% 0,% 0,% 0,% 0,%	Volume (veh/h)	51		26	39		8	18		23	10	0	21
Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Sign Control												
Hourly flow rate (vph) 55 793 28 42 452 9 20 2 25 11 0 23 Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median storage veh) Upstream signal (ft) XX, platoon unblocked VC, conflicting volume 461 822 1478 1464 808 1472 1474 457 VC1, stage 1 conf vol VC2, stage 2 conf vol VC2, stage 1 conf vol VC2, stage 1 conf vol VC3, stage 1 conf vol VC4, stage 1 conf vol VC5, stage 1 conf vol VC6, stage 1 conf vol VC7, stage 1 conf vol VC9, stage 2 conf vol VC9, stage 1 conf vol VC9, stage 1 conf vol VC9, stage 2 conf vol VC9, stage 2 conf vol VC9, stage 2 conf vol VC9, stage 1 conf vol VC9, stage 2 conf vol VC9, stage 2 conf vol VC9, stage 1 conf vol VC9, stage 2 conf vol VC9, stage 2 conf vol VC9, stage 2 conf vol VC9, stage 1 conf vol VC9, stage 2 conf vol VC9, stage 1 conf vol VC9, stage 2 conf vol VC9, stage 1 conf vol VC9, stage 1 conf vol VC9, stage 2 conf vol VC9, stage 1 conf vol VC9, stage 2 conf vol VC9, stage 1 con vol VC9,	Grade		0%			0%			0%			0%	
Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type	Peak Hour Factor	0.92	0.92	0.92			0.92	0.92	0.92			0.92	0.92
Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None None None None None None None Non	Hourly flow rate (vph)	55	793	28	42	452	9	20	2	25	11	0	23
Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median storage veh) Upstream signal (ft) Dystream signal (ft) OX, platoon unblocked VC, conflicting volume 461 822 1478 1464 808 1472 1474 457 VC1, stage 1 conf vol VC2, stage 2 conf vol VC2, stage 2 conf vol VC2, stage 2 conf vol VC3, stage 1 conf vol VC4, unblocked vol 461 822 1478 1464 808 1472 1474 457 VC3, single (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 VC2, stage (s) VC5, stage (s) VC6, stage (s) VC7, stage 1 conf vol VC8, stage 2 conf vol VC9, unblocked vol 461 822 1478 1464 808 1472 1474 457 VC9, indicate the stage of th	Pedestrians												
Percent Blockage Right turn flare (veh) Median storage veh) Upstream signal (ft) XX, platoon unblocked VC2, conflicting volume VC2, stage 1 conf vol VC2, stage 2 conf vol VC3, stage 2 conf vol VC4, unblocked vol VC4, stage 5 de 1 d	Lane Width (ft)												
Right turn flare (veh) Median type	Walking Speed (ft/s)												
Median type	Percent Blockage												
Median storage veh) Upstream signal (ft) Dx, platoon unblocked VC, conflicting volume 461 822 1478 1464 808 1472 1474 457 VC1, stage 1 conf vol VC2, stage 2 conf vol VC2, stage 2 conf vol VC2, unblocked vol 461 822 1478 1464 808 1472 1474 457 VC2, stage 2 conf vol VC2, stage 1 VC3, vC3, vC3, vC3, vC3, vC3, vC3, vC3, v	Right turn flare (veh)												
Upstream signal (ft) 0X, platon unblocked vCc, conflicting volume 461 822 1478 1464 808 1472 1474 457 vCc, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 461 822 1478 1464 808 1472 1474 457 VCc, stage 2 conf vol vCu, unblocked vol 461 822 1478 1464 808 1472 1474 457 VCc, stage (s) 4.1 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 822 82 83.5 84.0 83.3 85 100 96 M capacity (veh/h) 1100 808 92 115 881 89 114 604 Direction, Lane # EB1 EB2 WB1 WB2 NB1 SB1 Volume Total Volume Total Volume Right 0 28 0 9 25 23 35 81 100 96 11 100 1700 808 1700 158 211 Volume Right 0 0 28 0 9 25 23 35 81 100 96 11 Volume Right 0 0 10 1700 808 1700 158 211 Volume Capacity Volume Capacity 0.05 0.48 0.05 0.27 0.30 0.16 Cueue Length 95th (ft) 4 0 0 9.7 0.0 37.2 25.2 Approach Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 10 1478 1474 457 457 457 457 457 457 457 457 457	Median type		None			None							
Direction, Lane # EB 1 EB 2 WB 1 WB 2 NB 1 SB 1 Volume Total Volume Right 0 28 0 9 25 23 28 H 100 1700 808 1700 158 211 Volume Right 0 28 0 9 9 5 0 9 11 Volume Right 0 28 0 9 9 5 23 23 28 1 100 1700 808 1700 158 211 Volume Left 0 55 0 42 0 9 9 5 23 28 1 100 1700 808 1700 158 211 Volume Capacity 0 0 9 9 0 9 0 0 0 16 Volume Left 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Median storage veh)												
VC, conflicting volume 461 822 1478 1464 808 1472 1474 457 VC1, stage 1 conf vol VC2, stage 2 conf vol VC3, which is a stage 2 conf vol VC2, stage 2 conf vol VC2, stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 (C., stage (s) 4.1 7.1 6.5 6.2 7.1 6.1 6.2 6.2 7.1 6.2 6.2 7.1 6.2 6.2 7.1 6.2 6.2 7.1 6.2 6.2 7.1 6.2 6.2 7.1 6.2 6.2 7.1 6.2 6.2 7.1 6.2 6.2 7.1 6.2 7.1 6.2 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1 6.	Upstream signal (ft)												
CC1, stage 1 conf vol CC2, stage 2 conf vol CC3, stage 2 conf vol CC4, unblocked vol 461 822 1478 1464 808 1472 1474 457 CC, single (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 CC, 2 stage (s) EF (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 DQ queue free % 95 95 79 98 93 88 100 96 CM capacity (veh/h) 1100 808 92 115 381 89 114 604 Direction, Lane # EB 1 EB 2 WB 1 WB 2 NB 1 SB 1 Volume Total 55 822 42 461 47 34 Volume Right 55 0 42 0 20 11 Volume Right 0 28 0 9 25 23 SSH 1100 1700 808 1700 158 211 Volume Right 10 1700 808 1700 158 211 Volume Capacity 0.05 0.48 0.05 0.27 0.30 0.16 Queue Length 95th (ft) 4 0 4 0 29 14 Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Lane LOS A A A E D D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay	pX, platoon unblocked												
VCQ, stage 2 conf vol VCQ, unblocked vol 461 822 1478 1464 808 1472 1474 457 (C, single (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 (C, 2 stage (s) IF (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 00 queue free % 95 95 79 98 93 88 100 96 cM capacity (veh/h) 1100 808 92 115 381 89 114 604 Direction, Lane # EB1 EB2 WB1 WB2 NB1 SB1 Volume Total 55 822 42 461 47 34 Volume Right 55 0 42 0 20 11 Volume Right 0 28 0 9 25 23 SSH 1100 1700 808 1700 158 211 Volume Right 100 1700 808 1700 158 211 Volume Capacity 0.05 0.48 0.05 0.27 0.30 0.16 Queue Length 95th (ft) 4 0 4 0 29 14 Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Lane LOS A A A E D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	vC, conflicting volume	461			822			1478	1464	808	1472	1474	457
vCu, unblocked vol 461 822 1478 1464 808 1472 1474 457	vC1, stage 1 conf vol												
CC, single (s) 4.1 4.1 7.1 6.5 6.2 7.1 6.5 6.2 CC, 2 stage (s) IF (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 0.0 queue free % 95 95 79 98 93 88 100 96 color (apacity (veh/h) 1100 808 92 115 381 89 114 604 color (beta displayed)	vC2, stage 2 conf vol												
IC, 2 stage (s) IF (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 Oqueue free % 95 95 79 98 93 88 100 96 CM capacity (veh/h) 1100 808 92 115 381 89 114 604 Direction, Lane # EB 1 EB 2 WB 1 WB 2 NB 1 SB 1 Volume Total 55 822 42 461 47 34 Volume Right 55 0 42 0 20 11 Volume Right 0 28 0 9 25 23 SSH 1100 1700 808 1700 158 211 Volume to Capacity 0.05 0.48 0.05 0.27 0.30 0.16 Queue Length 95th (ft) 4 0 4 0 29 14 Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	vCu, unblocked vol	461			822			1478	1464	808		1474	457
#F (s)	tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
20 queue free % 95 95 79 98 93 88 100 96 2M capacity (veh/h) 1100 808 92 115 381 89 114 604 2M capacity (veh/h) 1100 808 92 115 381 89 114 604 2M capacity (veh/h) 1100 808 92 115 381 89 114 604 2M colume Total 55 822 42 461 47 34 40 20 11 400 400 400 40 28 0 9 25 23 25 400 42 0 20 11 400 400 40 40 29 14 400 40 40 40 40 40 40 40 40 40 40 40 4	tC, 2 stage (s)												
Marcapacity (veh/h) 1100 808 92 115 381 89 114 604	tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
Direction, Lane #	p0 queue free %	95			95			79	98	93	88	100	96
Volume Total 55 822 42 461 47 34 Volume Left 55 0 42 0 20 11 Volume Right 0 28 0 9 25 23 SH 1100 1700 808 1700 158 211 Volume to Capacity 0.05 0.48 0.05 0.27 0.30 0.16 Queue Length 95th (ft) 4 0 4 0 29 14 Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Lane LOS A A E D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	cM capacity (veh/h)	1100			808			92	115	381	89	114	604
Volume Left 55 0 42 0 20 11 Volume Right 0 28 0 9 25 23 SSH 1100 1700 808 1700 158 211 Volume to Capacity 0.05 0.48 0.05 0.27 0.30 0.16 Queue Length 95th (ft) 4 0 4 0 29 14 Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Lane LOS A A A E D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Right 0 28 0 9 25 23 SSH 1100 1700 808 1700 158 211 Volume to Capacity 0.05 0.48 0.05 0.27 0.30 0.16 Queue Length 95th (ft) 4 0 4 0 29 14 Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Lane LOS A A A E D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Volume Total	55	822	42	461	47	34						
SSH 1100 1700 808 1700 158 211 Volume to Capacity 0.05 0.48 0.05 0.27 0.30 0.16 Queue Length 95th (ft) 4 0 4 0 29 14 Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Lane LOS A A E D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Volume Left	55	0	42	0	20	11						
Volume to Capacity 0.05 0.48 0.05 0.27 0.30 0.16 Queue Length 95th (ft) 4 0 4 0 29 14 Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Lane LOS A A E D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Volume Right	0	28	0	9	25	23						
Queue Length 95th (ft) 4 0 4 0 29 14 Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Lane LOS A A E D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	cSH	1100	1700	808	1700	158	211						
Control Delay (s) 8.4 0.0 9.7 0.0 37.2 25.2 Lane LOS A A E D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Volume to Capacity	0.05	0.48	0.05	0.27	0.30	0.16						
Lane LOS A A E D Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Queue Length 95th (ft)	4	0	4	0	29	14						
Approach Delay (s) 0.5 0.8 37.2 25.2 Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Control Delay (s)	8.4	0.0	9.7	0.0	37.2	25.2						
Approach LOS E D Intersection Summary Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Lane LOS	Α		Α		Е	D						
Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Approach Delay (s)	0.5		0.8		37.2	25.2						
Average Delay 2.4 Intersection Capacity Utilization 52.7% ICU Level of Service A	Approach LOS					Е	D						
ntersection Capacity Utilization 52.7% ICU Level of Service A	Intersection Summary												
	Average Delay			2.4									
Analysis Period (min) 15	Intersection Capacity Utiliza	ation		52.7%	IC	CU Level	of Service			Α			
	Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
ane Configurations	1>			41	814		
Volume (vph)	833	114	29	464	79	17	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0			4.0	4.0		
Lane Util. Factor	1.00			1.00	1.00		
Frt	0.98			1.00	0.98		
Flt Protected	1.00			1.00	0.96		
Satd. Flow (prot)	1832			1857	1747		
Flt Permitted	1.00			0.88	0.96		
Satd. Flow (perm)	1832			1638	1747		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	905	124	32	504	86	18	
RTOR Reduction (vph)	7	0	0	0	14	0	
Lane Group Flow (vph)	1022	0	0	536	90	0	
Turn Type	NA		Perm	NA	NA		
Protected Phases	4			8	2		
Permitted Phases			8				
Actuated Green, G (s)	32.6			32.6	8.0		
Effective Green, g (s)	32.6			32.6	8.0		
Actuated g/C Ratio	0.67			0.67	0.16		
Clearance Time (s)	4.0			4.0	4.0		
Vehicle Extension (s)	3.0			3.0	3.0		
Lane Grp Cap (vph)	1228			1098	287		
v/s Ratio Prot	c0.56				c0.05		
v/s Ratio Perm				0.33			
v/c Ratio	0.83			0.49	0.31		
Uniform Delay, d1	6.0			3.9	17.9		
Progression Factor	1.00			1.00	1.00		
Incremental Delay, d2	5.0			0.3	0.6		
Delay (s)	10.9			4.3	18.5		
Level of Service	В			Α	В		
Approach Delay (s)	10.9			4.3	18.5		
Approach LOS	В			Α	В		
Intersection Summary							
HCM 2000 Control Delay			9.3	Н	CM 2000	Level of Service	Α
HCM 2000 Volume to Capa	acity ratio		0.73				
Actuated Cycle Length (s)			48.6		um of lost	(-)	8.0
Intersection Capacity Utiliza	ation		62.8%	IC	CU Level of	of Service	В
Analysis Period (min)			15				
c Critical Lane Group							

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6/17/2013 Kimley-Horn and Associates, Inc.

Dixon Ranch

Dixon Ranch
10: Cambridge Rd. & Green Valley Rd.

Cum	ulative
	PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	36	T.		36	1.			4	pr.		4	
Volume (vph)	3	638	131	124	347	9	87	9	253	22	9	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.97		1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Satd, Flow (prot)	1770	1815		1770	1856			1782	1583		1738	
Flt Permitted	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Satd. Flow (perm)	1770	1815		1770	1856			1782	1583		1738	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	693	142	135	377	10	95	10	275	24	10	17
RTOR Reduction (vph)	0	6	0	0	1	0	0	0	242	0	16	
Lane Group Flow (vph)	3	829	0	135	386	0	0	105	33	0	35	0
Turn Type	Prot	NA	- 0	Prot	NA	- 0	Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2 2	2	I CIIII	6	6	
Permitted Phases	1	7		J	U		2	2	2	U	U	
Actuated Green, G (s)	0.7	47.9		8.1	55.3			10.4	10.4		4.7	
Effective Green, g (s)	0.7	47.9		8.1	55.3			10.4	10.4		4.7	
Actuated g/C Ratio	0.01	0.55		0.09	0.63			0.12	0.12		0.05	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
	14	998		164	1178			212	189		93	
Lane Grp Cap (vph)									189			
v/s Ratio Prot v/s Ratio Perm	0.00	c0.46		c0.08	0.21			c0.06	0.02		c0.02	
	0.21	0.83		0.00	0.33			0.50	0.02		0.38	
v/c Ratio				0.82								
Uniform Delay, d1	42.9	16.2		38.8	7.3			35.9	34.5		39.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	7.6	6.0		27.1	0.2			1.8	0.4		2.5	
Delay (s)	50.5	22.2		65.9	7.5			37.7	34.9		42.3	
Level of Service	D	C		E	A			D	С		D	
Approach Delay (s)		22.3			22.6			35.7			42.3	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			25.8	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.75									
Actuated Cycle Length (s)			87.1	Sı	um of lost	time (s)			16.0			
Intersection Capacity Utiliza	ation		70.5%	IC	U Level	of Service)		С			
intersection Capacity Office	20011											
Analysis Period (min)	ation		15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	35	T.		Jac.	14		140	10		75	12	
Volume (vph)	108	345	319	91	150	18	256	137	159	32	89	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.93		1.00	0.98		1.00	0.92		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1728		1770	1832		1770	1713		1770	1813	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1728		1770	1832		1770	1713		1770	1813	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	375	347	99	163	20	278	149	173	35	97	21
RTOR Reduction (vph)	0	34	0	0	4	0	0	49	0	0	10	0
Lane Group Flow (vph)	117	688	0	99	179	0	278	273	0	35	108	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	8.4	36.2		6.1	33.9		14.9	21.8		2.8	9.7	
Effective Green, g (s)	8.4	36.2		6.1	33.9		14.9	21.8		2.8	9.7	
Actuated g/C Ratio	0.10	0.44		0.07	0.41		0.18	0.26		0.03	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	179	754		130	749		318	450		59	212	
v/s Ratio Prot	c0.07	c0.40		0.06	0.10		c0.16	c0.16		0.02	0.06	
v/s Ratio Perm												
v/c Ratio	0.65	0.91		0.76	0.24		0.87	0.61		0.59	0.51	
Uniform Delay, d1	35.8	21.9		37.7	16.0		33.1	26.8		39.5	34.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.3	15.3		22.8	0.2		22.3	2.3		15.0	2.1	
Delay (s)	44.1	37.1		60.4	16.2		55.4	29.1		54.5	36.4	
Level of Service	D	D		Е	В		Е	С		D	D	
Approach Delay (s)		38.1			31.7			41.3			40.6	
Approach LOS		D			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			38.4	H	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capac	ity ratio		0.87									
Actuated Cycle Length (s)	_		82.9	Sı	um of los	time (s)			16.0			
Intersection Capacity Utilizat	ion		76.3%	IC	U Level	of Service)		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 12: El Dorado Hills Blvd. & Francisco Dr. Cumulative PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	71/		4		jąć	10		10	13	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	41	497	28	36	43	535	371	24	9	202	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	540	30	39	47	582	403	26	10	220	2
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	45	540	116	582	429	10	222					
Volume Left (vph)	0	0	30	582	0	10	0					
Volume Right (vph)	0	540	47	0	26	0	2					
Hadj (s)	0.03	-0.57	-0.15	0.53	-0.01	0.53	0.03					
Departure Headway (s)	6.6	3.2	6.2	5.9	5.3	6.8	6.3					
Degree Utilization, x	0.08	0.48	0.20	0.95	0.63	0.02	0.39					
Capacity (veh/h)	517	1116	562	605	670	508	554					
Control Delay (s)	10.2	9.1	10.7	47.4	15.9	8.8	12.1					
Approach Delay (s)	9.2		10.7	34.0		12.0						
Approach LOS	Α		В	D		В						
Intersection Summary												
Delay			22.5									
Level of Service			С									
Intersection Capacity Utilizat	ion		63.1%	IC	U Level	of Service			В			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3/2	T.		Jal.	4		14	44	j ^e	14	中子	
Volume (vph)	35	27	112	337	51	34	120	1582	705	38	1320	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.88		1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1637		1681	1676		1770	3539	1583	1770	3518	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1637		1681	1676		1770	3539	1583	1770	3518	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	29	122	366	55	37	130	1720	766	41	1435	61
RTOR Reduction (vph)	0	116	0	0	7	0	0	0	0	0	2	0
Lane Group Flow (vph)	38	35	0	231	220	0	130	1720	766	41	1494	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	5.6	5.6		19.3	19.3		15.6	76.2	120.0	4.7	65.3	
Effective Green, g (s)	5.6	5.6		19.3	19.3		15.6	76.2	120.0	4.7	65.3	
Actuated g/C Ratio	0.05	0.05		0.16	0.16		0.13	0.64	1.00	0.04	0.54	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	82	76		270	269		230	2247	1583	69	1914	
v/s Ratio Prot	0.02	0.02		c0.14	0.13		0.07	c0.49		0.02	c0.42	
v/s Ratio Perm									c0.48			
v/c Ratio	0.46	0.46		0.86	0.82		0.57	0.77	0.48	0.59	0.78	
Uniform Delay, d1	55.7	55.7		49.0	48.7		49.0	15.6	0.0	56.7	21.7	
Progression Factor	1.00	1.00		1.00	1.00		0.66	0.22	1.00	1.00	1.00	
Incremental Delay, d2	1.5	1.6		21.6	16.5		1.2	1.6	0.7	8.8	3.2	
Delay (s)	57.2	57.3		70.6	65.2		33.6	5.1	0.7	65.5	24.9	
Level of Service	Е	Ε		Е	Ε		С	Α	Α	Е	С	
Approach Delay (s)		57.3			67.9			5.2			26.0	
Approach LOS		Ε			Е			Α			С	
Intersection Summary												
HCM 2000 Control Delay			19.9	Н	CM 2000	Level of S	ervice		В			
HCM 2000 Volume to Capa	acity ratio		0.79									
Actuated Cycle Length (s)			120.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utiliza	ation		81.4%	IC	U Level	of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

6/17/2013 Kimley-Horn and Associates, Inc.

c Critical Lane Group

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1900

4.0

0.95

1.00

0.95

1681

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Split

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Split

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1.00

1599

1.00

1599

0.92

217

NA

18.6

18.6

0.16

4.0

0.2

247

0.88

49.6

1.00

377

1900

0.92

410

0

Lane Configurations

Volume (vph)

Ideal Flow (vphpl)

Total Lost time (s)

Lane Util. Factor

Satd. Flow (prot)

Satd. Flow (perm)

Adj. Flow (vph)

Turn Type

Peak-hour factor, PHF

RTOR Reduction (vph)

Lane Group Flow (vph)

Protected Phases

Permitted Phases Actuated Green, G (s)

Effective Green, g (s)

Actuated g/C Ratio

Clearance Time (s)

Vehicle Extension (s)

Lane Grp Cap (vph) v/s Ratio Prot

v/s Ratio Perm v/c Ratio

Dolay (c)

Uniform Delay, d1

Progression Factor

Incremental Delay, d2

Flt Protected

Flt Permitted

41

1534

1900

4.0

0.95

0.99

1.00

3519

1.00

3519

0.92

1667

1732

NA

2

64.1

65.8

0.55

5.7

4.2

c0.49

0.90

24.1

0.56

4.9

2

173

4.0

1.00

1.00

0.95

1770

0.95

1770

0.92

188

Prot

10.0

10.0

0.08

4.0

147 1929

0.11

1.28

55.0

0.77

155.4

107 7

0

1900

62

1900

0.92

67

0

个个

1944

1900

0.91

0.99

1.00

5048

1.00

5048

0.92

2113

2220

66.1

67.8

0.56

5.7

0.44

0.78

20.3

0.27

10

NA

3

4.0

1900

0.92

110

0

0 188

295

1900

4.0

1.00

1.00

0.95

1770

0.95

1770

0.92

321

321

Prot

12.0

12.0

0.10

4.0

0.2

177 2852

c0.18

1.81

54.0

0.92

376.1

	٠	→	\rightarrow	•	←	•	•	†	/	-	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	54,	Jal.	4	74	34,46	ተተጉ		19	444	ř
Volume (vph)	223	73	302	221	161	95	1077	2022	298	56	1320	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	0.97	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1726	1583	1681	1755	1583	3433	4987		1770	5085	1583
Flt Permitted	0.95	0.98	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1681	1726	1583	1681	1755	1583	3433	4987		1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	242	79	328	240	175	103	1171	2198	324	61	1435	458
RTOR Reduction (vph)	0	0	0	0	0	87	0	14	0	0	0	C
Lane Group Flow (vph)	160	161	328	204	211	16	1171	2508	0	61	1435	458
Turn Type	Split	NA	Free	Split	NA	Perm	Prot	NA		Prot	NA	Free
Protected Phases	4	4		. 8	8		5	2		1	6	
Permitted Phases			Free			8						Free
Actuated Green, G (s)	14.7	14.7	120.0	19.1	19.1	19.1	40.8	65.0		5.2	29.4	120.0
Effective Green, g (s)	14.7	14.7	120.0	19.1	19.1	19.1	40.8	65.0		5.2	29.4	120.0
Actuated g/C Ratio	0.12	0.12	1.00	0.16	0.16	0.16	0.34	0.54		0.04	0.24	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		2.2	2.2	2.2	3.0	3.5		2.0	2.5	
Lane Grp Cap (vph)	205	211	1583	267	279	251	1167	2701		76	1245	1583
v/s Ratio Prot	c0.10	0.09		c0.12	0.12		c0.34	0.50		0.03	c0.28	
v/s Ratio Perm			0.21			0.01						0.29
v/c Ratio	0.78	0.76	0.21	0.76	0.76	0.07	1.00	0.93		0.80	1.15	0.29
Uniform Delay, d1	51.1	51.0	0.0	48.3	48.2	42.9	39.6	25.4		56.9	45.3	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.44		0.85	0.76	1.00
Incremental Delay, d2	17.3	15.0	0.3	11.3	10.2	0.1	17.0	3.0		25.1	74.0	0.2
Delay (s)	68.4	66.0	0.3	59.6	58.4	42.9	44.5	14.3		73.2	108.5	0.2
Level of Service	E	Е	Α	Е	Е	D	D	В		Е	F	Α
Approach Delay (s)		33.4			55.8			23.8			82.0	
Approach LOS		С			Ε			С			F	
Intersection Summary												
HCM 2000 Control Delay			43.9	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	acity ratio		0.97									
Actuated Cycle Length (s)			120.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		88.0%	IC	U Level	of Service			Е			
Analysis Period (min)			15									
c Critical Lane Group												

Delay (S)	30.7	50.0	55.4	44.4	10.5	420.0	0.4		131.1	10.4	
Level of Service	Ε	Е	D	D	Ε	F	Α		F	В	
Approach Delay (s)		55.2			72.7		59.3			36.0	
Approach LOS		E			Е		Е			D	
Intersection Summary											
HCM 2000 Control Delay			51.8	Н	CM 2000 Le	vel of Service		D			
HCM 2000 Volume to Capacity	ratio		0.98								
Actuated Cycle Length (s)			120.0	Sı	um of lost tir	ne (s)		16.0			
Intersection Capacity Utilization		1	02.7%	IC	U Level of S	Service		G			
Analysis Period (min)			15								
c Critical Lane Group											

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1900

1900

Lane Configurations

Volume (vph) Ideal Flow (vphpl)

Total Lost time (s)

Lane Util. Factor

Flt Protected

Frt

tttt

1139

1900

4.0

0.86

1.00

1.00

1900

674

1900

4.0

1.00

1.00

0.95

619

1900

4.0

1.00

0.85

1.00

***††** 2335

1900

0.91

1.00

1.00

4.0

1062

1900

4.0

1.00

0.86

1.00

1900

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3/2	4	71				34 40	44			44	ř
Volume (vph)	578	0	201	0	0	0	1024	1235	0	0	1413	848
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.91	0.95				0.97	0.95			0.95	1.00
Frt	1.00	0.99	0.85				1.00	1.00			1.00	0.85
Flt Protected	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1603	1504				3433	3539			3539	1583
Flt Permitted	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1603	1504				3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	628	0	218	0	0	0	1113	1342	0	0	1536	922
RTOR Reduction (vph)	0	41	160	0	0	0	0	0	0	0	0	246
Lane Group Flow (vph)	327	282	36	0	0	0	1113	1342	0	0	1536	676
Turn Type	Split	NA	Perm				Prot	NA			NA	Perm
Protected Phases	4	4					5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	20.0	20.0	20.0				33.0	82.0			45.0	45.0
Effective Green, g (s)	20.0	20.0	20.0				33.0	82.0			45.0	45.0
Actuated g/C Ratio	0.18	0.18	0.18				0.30	0.75			0.41	0.41
Clearance Time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	305	291	273				1029	2638			1447	647
v/s Ratio Prot	c0.19	0.18					c0.32	0.38			c0.43	0
v/s Ratio Perm	00.10	0.10	0.02				00.02	0.00			00.10	0.43
v/c Ratio	1.07	0.97	0.13				1.08	0.51			1.06	1.05
Uniform Delay, d1	45.0	44.7	37.7				38.5	5.7			32.5	32.5
Progression Factor	1.00	1.00	1.00				1.00	1.00			0.55	0.87
Incremental Delay, d2	72.0	43.8	0.2				52.8	0.7			29.5	25.0
Delay (s)	117.0	88.5	37.9				91.3	6.4			47.4	53.2
Level of Service	F	F	D				F	Α			D	D
Approach Delay (s)		87.8			0.0			44.9			49.6	
Approach LOS		F			Α			D			D	
Intersection Summary												
HCM 2000 Control Delay			53.2	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	acity ratio		1.07									
Actuated Cycle Length (s)			110.0		um of los				12.0			
Intersection Capacity Utiliza	ation		96.3%	IC	U Level	of Service	•		F			
Analysis Period (min)			15									
c Critical Lane Group												

TIL TIOLOGICA			1.00			1.00		1.00	1.00	0.00	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1867	0	0	1154	0	2538	673	733	1238	0
RTOR Reduction (vph)	0	0	17	0	0	0	0	0	62	0	0	0
Lane Group Flow (vph)	0	0	1850	0	0	1154	0	2538	611	733	1238	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			94.7			120.0		59.0	59.0	53.0	70.3	
Effective Green, g (s)			94.7			120.0		59.0	59.0	53.0	70.3	
Actuated g/C Ratio			0.79			1.00		0.49	0.49	0.44	0.59	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			2292			1611		2500	778	781	3754	
v/s Ratio Prot			0.28					c0.50		c0.41	0.19	
v/s Ratio Perm			0.38			0.72			0.39			
v/c Ratio			0.81			0.72		1.02	0.79	0.94	0.33	
Uniform Delay, d1			7.3			0.0		30.5	25.3	31.9	12.8	
Progression Factor			1.00			1.00		1.00	1.00	0.43	0.45	
Incremental Delay, d2			2.2			2.8		21.9	7.8	8.9	0.1	
Delay (s)			9.5			2.8		52.4	33.1	22.7	5.8	
Level of Service			Α			Α		D	С	С	Α	
Approach Delay (s)		9.5			2.8			48.3			12.1	
Approach LOS		Α			Α			D			В	
Intersection Summary												
HCM 2000 Control Delay			24.4	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacity r	atio		0.98									
Actuated Cycle Length (s)			120.0	Sı	um of los	time (s)			8.0			
Intersection Capacity Utilization			89.1%	IC	U Level	of Service			Е			
Analysis Period (min)			15									
c Critical Lane Group												

1718

1900

4.0

0.88

0.85

1.00

1900

1900

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				Jal.	4	74	ją	44			44	7
Volume (vph)	0	0	0	998	0	578	468	1345	0	0	1183	383
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.91	0.95	1.00	0.95			0.95	1.00
Frt				1.00	0.98	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1587	1504	1770	3539			3539	1583
Flt Permitted				0.95	0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1587	1504	1770	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1085	0	628	509	1462	0	0	1286	416
RTOR Reduction (vph)	0	0	0	0	35	35	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	597	547	499	509	1462	0	0	1286	416
Turn Type				Split	NA	Perm	Prot	NA			NA	Free
Protected Phases				. 8	8		5	2			6	
Permitted Phases						8						Free
Actuated Green, G (s)				34.0	34.0	34.0	27.0	68.0			37.0	110.0
Effective Green, g (s)				34.0	34.0	34.0	27.0	68.0			37.0	110.0
Actuated g/C Ratio				0.31	0.31	0.31	0.25	0.62			0.34	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				519	490	464	434	2187			1190	1583
v/s Ratio Prot				c0.36	0.34		c0.29	0.41			c0.36	
v/s Ratio Perm						0.33						0.26
v/c Ratio				1.15	1.12	1.08	1.17	0.67			1.08	0.26
Uniform Delay, d1				38.0	38.0	38.0	41.5	13.7			36.5	0.0
Progression Factor				1.00	1.00	1.00	1.02	0.59			0.82	1.00
Incremental Delay, d2				88.0	76.8	63.8	94.7	1.2			48.2	0.3
Delay (s)				126.0	114.8	101.8	137.0	9.3			78.2	0.3
Level of Service				F	F	F	F	Α			Е	Α
Approach Delay (s)		0.0			114.7			42.3			59.2	
Approach LOS		Α			F			D			Е	
Intersection Summary												
HCM 2000 Control Delay			70.6	Н	CM 2000	Level of	Service		Е			
HCM 2000 Volume to Capacity	ratio		1.13									
Actuated Cycle Length (s)			110.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utilization	1		102.1%	IC	CU Level	of Service	9		G			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	75	PF.	1		16	++	
Volume (vph)	49	320	1513	410	0	1517	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00	0.95			0.95	
Frt	1.00	0.85	0.97			1.00	
Flt Protected	0.95	1.00	1.00			1.00	
Satd. Flow (prot)	1770	1583	3426			3539	
Flt Permitted	0.95	1.00	1.00			1.00	
Satd. Flow (perm)	1770	1583	3426			3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	53	348	1645	446	0	1649	
RTOR Reduction (vph)	0	73	17	0	0	0	
Lane Group Flow (vph)	53	275	2074	0	0	1649	
Turn Type	NA	Perm	NA		Prot	NA	
Protected Phases	8		2		1	6	
Permitted Phases		8					
Actuated Green, G (s)	21.4	21.4	80.6			80.6	
Effective Green, g (s)	21.4	21.4	80.6			80.6	
Actuated g/C Ratio	0.19	0.19	0.73			0.73	
Clearance Time (s)	4.0	4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	344	307	2510			2593	
v/s Ratio Prot	0.03		c0.61			0.47	
v/s Ratio Perm		c0.17					
v/c Ratio	0.15	0.89	0.83			0.64	
Uniform Delay, d1	36.8	43.2	10.0			7.4	
Progression Factor	1.00	1.00	1.09			1.00	
Incremental Delay, d2	0.2	26.4	2.0			1.2	
Delay (s)	37.0	69.6	12.8			8.6	
Level of Service	D	Е	В			Α	
Approach Delay (s)	65.3		12.8			8.6	
Approach LOS	E		В			Α	
Intersection Summary							
HCM 2000 Control Delay			16.2	Н	CM 2000	Level of S	Service B
HCM 2000 Volume to Capa	city ratio		0.87				
Actuated Cycle Length (s)			110.0	S	um of lost	time (s)	12.0
Intersection Capacity Utiliza	ition		81.4%	IC	U Level	of Service	D
Analysis Period (min)			15				
c Critical Lane Group							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1,6	44		,tel	47		140	44	ř*	19	41>	
Volume (vph)	182	237	186	439	116	151	200	894	460	232	574	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.93		1.00	0.92		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3306		1770	3239		1770	3539	1583	1770	3449	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3306		1770	3239		1770	3539	1583	1770	3449	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	198	258	202	477	126	164	217	972	500	252	624	127
RTOR Reduction (vph)	0	106	0	0	120	0	0	0	204	0	12	0
Lane Group Flow (vph)	198	354	0	477	170	0	217	972	296	252	739	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	19.6	19.0		36.1	35.5		19.4	41.1	41.1	19.0	40.7	
Effective Green, g (s)	19.6	19.0		36.1	35.5		19.4	41.1	41.1	19.0	40.7	
Actuated g/C Ratio	0.15	0.14		0.27	0.27		0.14	0.31	0.31	0.14	0.30	
Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	259	469		477	859		256	1087	486	251	1049	
v/s Ratio Prot	0.11	c0.11		c0.27	0.05		0.12	c0.27		c0.14	0.21	
v/s Ratio Perm									0.19			
v/c Ratio	0.76	0.76		1.00	0.20		0.85	0.89	0.61	1.00	0.70	
Uniform Delay, d1	54.9	55.2		48.9	38.1		55.8	44.3	39.5	57.4	41.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	12.6	6.8		41.2	0.1		22.0	9.6	2.2	57.8	2.2	
Delay (s)	67.5	62.0		90.1	38.2		77.8	53.9	41.7	115.2	43.4	
Level of Service	Е	Е		F	D		Е	D	D	F	D	
Approach Delay (s)		63.6			70.5			53.3			61.4	
Approach LOS		Е			Е			D			Е	
Intersection Summary												
HCM 2000 Control Delay			60.1	Н	CM 2000	Level of	Service		Е			
HCM 2000 Volume to Capa	city ratio		0.92			2.2.3.						
Actuated Cycle Length (s)	,		133.8	S	um of los	t time (s)			18.6			
Intersection Capacity Utiliza	ition		89.9%			of Service	,		E			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	4	71	34	7.		jąć	10		1	4	#
Volume (vph)	245	20	374	10	12	6	341	550	19	14	307	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1765		1770	1853		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1765		1770	1853		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	266	22	407	11	13	7	371	598	21	15	334	114
RTOR Reduction (vph)	0	0	324	0	7	0	0	1	0	0	0	82
Lane Group Flow (vph)	266	22	83	11	13	0	371	618	0	15	334	32
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	12.9	13.5	13.5	0.7	1.3		17.2	35.2		0.7	18.7	18.7
Effective Green, g (s)	12.9	13.5	13.5	0.7	1.3		17.2	35.2		0.7	18.7	18.7
Actuated g/C Ratio	0.20	0.20	0.20	0.01	0.02		0.26	0.53		0.01	0.28	0.28
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	345	380	323	18	34		460	986		18	527	447
v/s Ratio Prot	c0.15	0.01		0.01	0.01		c0.21	c0.33		0.01	0.18	
v/s Ratio Perm			c0.05									0.02
v/c Ratio	0.77	0.06	0.26	0.61	0.39		0.81	0.63		0.83	0.63	0.07
Uniform Delay, d1	25.2	21.2	22.1	32.6	32.0		22.9	10.8		32.6	20.7	17.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	10.2	0.1	0.4	48.7	7.1		10.0	1.3		131.9	2.5	0.1
Delay (s)	35.4	21.2	22.5	81.2	39.2		32.8	12.1		164.6	23.2	17.4
Level of Service	D	С	С	F	D		С	В		F	С	В
Approach Delay (s)		27.4			54.1			19.9			26.4	
Approach LOS		С			D			В			С	
Intersection Summary												
HCM 2000 Control Delay			24.1	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.76									
Actuated Cycle Length (s)			66.1	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		65.3%			of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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6/17/2013 Kimley-Horn and Associates, Inc.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	5	48	82	2	83	111	398	141	115	271	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	5	52	89	2	90	121	433	153	125	295	45
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	80	182	707	464								
Volume Left (vph)	23	89	121	125								
Volume Right (vph)	52	90	153	45								
Hadj (s)	-0.30	-0.17	-0.06	0.03								
Departure Headway (s)	7.2	6.9	5.6	5.9								
Degree Utilization, x	0.16	0.35	1.10	0.76								
Capacity (veh/h)	452	489	644	597								
Control Delay (s)	11.5	13.5	88.8	25.1								
Approach Delay (s)	11.5	13.5	88.8	25.1								
Approach LOS	В	В	F	D								
Intersection Summary												
Delay			54.3									
Level of Service			F									
Intersection Capacity Utiliza	ation		65.0%	IC	U Level	of Service			С			
Analysis Period (min)			15									

	-	•	•	•	1		
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1>			4		갼	
Volume (veh/h)	807	0	0	484	0	0	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	877	0	0	526	0	0	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)				836			
pX, platoon unblocked					0.88		
vC, conflicting volume			877		1403	877	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			877		1390	877	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		100	100	
cM capacity (veh/h)			770		138	348	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	877	526	0				
Volume Left	0	0	0				
Volume Right	0	0	0				
cSH	1700	1700	1700				
Volume to Capacity	0.52	0.31	0.00				
Queue Length 95th (ft)	0.02	0.01	0.00				
Control Delay (s)	0.0	0.0	0.0				
Lane LOS	0.0	3.0	Α.				
Approach Delay (s)	0.0	0.0	0.0				
Approach LOS	0.0	3.0	A				
Intersection Summary							
Average Delay			0.0				
Intersection Capacity Utiliza	ation		45.8%	IC	CU Level o	of Service	
Analysis Period (min)			15			,	
, a.a., 510 1 51104 (11111)			10				

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6/17/2013 Kimley-Horn and Associates, Inc.

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd. Cumulative AM Peak

	٠	-	•	•	4	†	↓	4	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	35	396	101	1167	51	129	517	236	
v/c Ratio	0.62	0.48	0.65	1.24	0.28	0.66	1.22	0.48	
Control Delay	111.2	31.1	82.3	147.2	62.8	71.8	165.2	19.5	
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
Total Delay	111.2	31.1	82.3	147.5	62.8	71.8	165.2	19.5	
Queue Length 50th (ft)	33	260	93	~1379	44	106	~604	58	
Queue Length 95th (ft)	#93	373	156	#1660	89	179	#837	145	
Internal Link Dist (ft)		1935		786		1468	502		
Turn Bay Length (ft)	85		105		165				
Base Capacity (vph)	56	817	197	944	213	225	423	488	
Starvation Cap Reductn	0	0	0	48	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.63	0.48	0.51	1.30	0.24	0.57	1.22	0.48	

Intersection Summary

Queue shown is maximum after two cycles.

Dixon Ranch 3: Silva Valley Pkwy. & Green Valley Rd. Cumulative AM Peak

	۶	-	\rightarrow	•	←	1	†	↓	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	3	307	282	116	819	504	145	65	
v/c Ratio	0.05	0.44	0.37	0.66	0.90	0.87	0.25	0.49	
Control Delay	66.7	34.6	4.9	75.2	44.8	57.9	29.0	68.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	66.7	34.6	4.9	75.2	44.8	57.9	29.0	68.3	
Queue Length 50th (ft)	3	198	0	95	612	395	73	51	
Queue Length 95th (ft)	14	309	61	170	#1028	#678	144	105	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	55	732	793	235	914	589	596	316	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.05	0.42	0.36	0.49	0.90	0.86	0.24	0.21	
Intersection Summary									

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Dixon Ranch 18: Latrobe Rd. & US-50 EB Ramp

m Volume for 95th percentile queue is metered by upstream signal.

Cumulative AM Peak

Lane Group EBR WBR NBT NBR SBL SBT Lane Group Flow (vph) 1746 502 1846 266 787 2049 v/c Ratio 0.75 0.31 0.82 0.34 0.88 0.50 Control Delay 7.3 0.5 41.4 16.1 18.3 6.4 Queue Delay 0.0 0.0 0.0 0.0 1.5 0.0 Total Delay 7.3 0.5 41.4 16.1 19.8 6.4 Queue Length 50th (ft) 286 0 591 85 182 106 Queue Length 95th (ft) 266 0 689 165 m181 m106 Internal Link Dist (ft) 720 381 350 381
v/c Ratio 0.75 0.31 0.82 0.34 0.88 0.50 Control Delay 7.3 0.5 41.4 16.1 18.3 6.4 Queue Delay 0.0 0.0 0.0 0.0 1.5 0.0 Total Delay 7.3 0.5 41.4 16.1 19.8 6.4 Queue Length 50th (ft) 286 0 591 85 182 106 Queue Length 95th (ft) 266 0 689 165 m181 m106 Internal Link Dist (ft) 720 381
Control Delay 7.3 0.5 41.4 16.1 18.3 6.4 Queue Delay 0.0 0.0 0.0 0.0 1.5 0.0 Total Delay 7.3 0.5 41.4 16.1 19.8 6.4 Queue Length 50th (ft) 286 0 591 85 182 106 Queue Length 95th (ft) 266 0 689 165 m181 m106 Internal Link Dist (ft) 720 381
Queue Delay 0.0 0.0 0.0 0.0 1.5 0.0 Total Delay 7.3 0.5 41.4 16.1 19.8 6.4 Queue Length 50th (ft) 286 0 591 85 182 106 Queue Length 95th (ft) 266 0 689 165 m181 m106 Internal Link Dist (ft) 720 381
Total Delay 7.3 0.5 41.4 16.1 19.8 6.4 Queue Length 50th (ft) 286 0 591 85 182 106 Queue Length 95th (ft) 266 0 689 165 m181 m106 Internal Link Dist (ft) 720 381
Queue Length 50th (ft) 286 0 591 85 182 106 Queue Length 95th (ft) 266 0 689 165 m181 m106 Internal Link Dist (ft) 720 381
Queue Length 95th (ft) 266 0 689 165 m181 m106 Internal Link Dist (ft) 720 381
Internal Link Dist (ft) 720 381
Turn Bay Length (ft) 180 350
Base Capacity (vph) 2338 1611 2249 772 967 4101
Starvation Cap Reductn 0 0 0 0 66 0
Spillback Cap Reductn 0 0 0 0 0
Storage Cap Reductn 0 0 0 0 0
Reduced v/c Ratio 0.75 0.31 0.82 0.34 0.87 0.50

Dixon Ranch 19: Silva Valley Pkwy & EB US-50 Ramps Cumulative AM Peak

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Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	266	262	145	860	842	1496	643	
v/c Ratio	0.90	0.79	0.38	0.97	0.32	0.98	0.68	
Control Delay	71.4	45.8	9.0	58.3	4.5	23.6	4.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	31.6	2.7	
Total Delay	71.4	45.8	9.0	58.3	4.5	55.2	7.3	
Queue Length 50th (ft)	156	121	0	250	72	290	68	
Queue Length 95th (ft)	#305	#254	52	#375	95	m218	m55	
Internal Link Dist (ft)		797			881	399		
Turn Bay Length (ft)	400							
Base Capacity (vph)	298	335	386	886	2604	1533	943	
Starvation Cap Reductn	0	0	0	0	0	145	189	
Spillback Cap Reductn	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.89	0.78	0.38	0.97	0.32	1.08	0.85	

Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

m Volume for 95th percentile queue is metered by upstream signal.

	•	•	•	1	†	↓	4
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	472	458	433	507	848	1377	695
v/c Ratio	1.15	1.08	0.83	1.12	0.36	1.06	0.44
Control Delay	125.9	96.5	31.6	104.2	6.6	64.7	0.6
Queue Delay	0.0	11.3	52.3	0.0	0.2	16.9	0.0
Total Delay	125.9	107.8	83.9	104.2	6.7	81.6	0.6
Queue Length 50th (ft)	~335	~291	131	~342	125	~462	0
Queue Length 95th (ft)	#531	#500	#304	m#500	m158	#584	0
Internal Link Dist (ft)		1051			399	84	
Turn Bay Length (ft)			360				
Base Capacity (vph)	410	425	524	452	2359	1297	1583
Starvation Cap Reductn	0	0	0	0	0	348	0
Spillback Cap Reductn	0	105	131	0	595	147	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	1.43	1.10	1.12	0.48	1.45	0.44

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.

 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd. Cumulative PM Peak

	۶	-	•	←	4	†	ļ	4	
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	150	1079	55	825	79	333	184	142	
v/c Ratio	0.97	0.99	1.28	0.86	0.37	1.49	0.74	0.42	
Control Delay	128.5	55.1	281.9	40.4	64.3	285.1	77.6	12.1	
Queue Delay	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	
Total Delay	128.5	55.1	281.9	45.1	64.3	285.1	77.6	12.1	
Queue Length 50th (ft)	143	~986	~65	657	70	~426	166	0	
Queue Length 95th (ft)	#291	#1333	#162	#914	126	#633	253	63	
Internal Link Dist (ft)		1935		786		1468	502		
Turn Bay Length (ft)	85		105		165				
Base Capacity (vph)	155	1087	43	959	211	223	281	364	
Starvation Cap Reductn	0	0	0	86	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.97	0.99	1.28	0.95	0.37	1.49	0.65	0.39	

Intersection Summary

Queue shown is maximum after two cycles.

Dixon Ranch 3: Silva Valley Pkwy. & Green Valley Rd. Cumulative PM Peak

	۶	→	\rightarrow	•	←	4	†	↓	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	11	879	415	70	517	379	137	16	
v/c Ratio	0.19	0.87	0.44	0.97	0.47	0.81	0.27	0.18	
Control Delay	70.6	35.5	9.9	158.3	17.1	58.9	11.8	53.9	
Queue Delay	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	70.6	36.6	9.9	158.3	17.1	58.9	11.8	53.9	
Queue Length 50th (ft)	9	528	81	56	182	280	13	9	
Queue Length 95th (ft)	31	#953	184	#173	381	#510	70	36	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	58	1106	1021	72	1141	471	517	326	
Starvation Cap Reductn	0	80	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.86	0.41	0.97	0.45	0.80	0.26	0.05	
Intersection Summary									

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Dixon Ranch 18: Latrobe Rd. & US-50 EB Ramp

1154

0.72

2.8

0.0

2.8

0 ~730

0 #852

0

0

0.72

1867

0.81

8.5

0.0

8.5

165

221

0

0

0.76

2538

1.02

52.5

0.0

52.5

720

2500

0

0

1.02

Cumulative PM Peak

1238

0.33

6.4

0.0

6.4

58

m55

392

3752

0.33

0

733

0.94

25.5

25.5

603

350

0

0.94

673

0.80

29.3

0.0

29.3

358

537 m579

180

0

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0.80

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Storage Cap Reductn Reduced v/c Ratio Intersection Summary

Lane Group

Control Delay

Queue Delay

Total Delay

v/c Ratio

Lane Group Flow (vph)

Queue Length 50th (ft)

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

- Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Dixon Ranch 19: Silva Valley Pkwy & EB US-50 Ramps Cumulative PM Peak

	•	→	•	1	1	ţ	4	
Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	327	323	196	1113	1342	1536	922	
v/c Ratio	1.07	0.97	0.45	1.08	0.51	1.06	1.03	
Control Delay	115.6	81.8	9.2	90.2	6.5	49.6	36.1	
Queue Delay	9.3	3.9	0.0	0.0	0.0	16.3	26.4	
Total Delay	124.9	85.7	9.2	90.2	6.5	65.9	62.5	
Queue Length 50th (ft)	~270	216	0	~454	174	~621	~636	
Queue Length 95th (ft)	#455	#417	65	#584	213	m443	m456	
Internal Link Dist (ft)		797			881	399		
Turn Bay Length (ft)	400							
Base Capacity (vph)	305	332	433	1029	2638	1447	893	
Starvation Cap Reductn	0	0	0	0	0	218	158	
Spillback Cap Reductn	7	6	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	
Reduced v/c Ratio	1.10	0.99	0.45	1.08	0.51	1.25	1.25	

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

	•	•	•	1	†	↓	4
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	597	582	534	509	1462	1286	416
v/c Ratio	1.15	1.11	1.07	1.17	0.67	1.08	0.26
Control Delay	123.8	106.1	94.5	133.2	9.5	78.5	0.3
Queue Delay	3.1	2.8	13.4	0.0	0.9	8.9	0.0
Total Delay	126.9	108.9	107.9	133.2	10.3	87.4	0.3
Queue Length 50th (ft)	~523	~490	~413	~423	190	~538	0
Queue Length 95th (ft)	#750	#730	#637	m#560	m204	#676	0
Internal Link Dist (ft)		1051			399	84	
Turn Bay Length (ft)			360				
Base Capacity (vph)	519	525	499	434	2187	1190	1583
Starvation Cap Reductn	0	0	0	0	404	238	0
Spillback Cap Reductn	149	141	106	0	0	24	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.61	1.52	1.36	1.17	0.82	1.35	0.26

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
- 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 Volume for 95th percentile queue is metered by upstream signal.

Appendix H:

Analysis Worksheets for Cumulative (2025) plus Proposed Project Conditions

Cumulative+PP AM Peak

Lane Configurations		•	→	•	•	←	•	•	†	<i>></i>	>	ļ	4
Volume (vph)	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl)	Lane Configurations	ايوايو	44	71	Jaf.	44	74	34, 36	P D		10	4	7
Total Lost time (s)	Volume (vph)	179	322	260	83	1075	107	316	179	7	105	307	416
Lane Util. Factor 0.97 0.95 1.00 1.00 0.95 1.00 0.97 0.95 1.00 1.00 1.00 0.85 1.00 0.97 0.95 1.00 1.00 1.00 0.85 1.00 0.99 1.00 1.00 0.85 1.00 0.9	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Fit Protected	Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Fit Protected 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 0.95 1.00 0.95 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Satd. Flow (prot) 3433 3539 1583 1770 3539 1583 3433 3518 1770 1863 1583 1583 1581 1770 1863 1583 1581 1770 1863 1583 1581 1770 1863 1583 1581 1770 1863 1583 1581 1770 1863 1583 1581 1770 1863 1583 1584 1770 1863 1583 1584 1770 1863 1583 1584 1770 1863 1583 1584 1770 1863 1583 1584 1770 1863 1583 1584 1770 1863 1583 1584 1770 1863 1583 1583 1584 1770 1863 1583 1583 1583 1583 1581 1770 1863 1583 1583 1583 1583 1583 1583 1583 158	Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Fit Permitted	Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm) 3433 3539 1583 1770 3539 1583 3433 3518 1770 1863 1583 1583 1770 1863 1583 1583 1770 1863 1583 1583 1770 1770 1863 1583 1770 1864 1583 1770 1	Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3518		1770	1863	1583
Peak-hour factor, PHF	Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Adj. Flow (vph)	Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3518		1770	1863	1583
RTOR Reduction (vph)	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 195 350 102 90 1168 44 343 199 0 114 334 324 Turn Type Prot NA Perm 4 6 6 2 2 6 6 2 2 2 0.06 2 20.6 20.6 20.6 20.6 20.6 20.6	Adj. Flow (vph)	195	350	283	90	1168	116	343	195	8	114	334	452
Turn Type	RTOR Reduction (vph)	0	0	181	0	0	72	0	4	0	0	0	128
Protected Phases 5 2 1 6 3 8 7 4 Permitted Phases 2 6 6 4 Catculated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Catculated green, g (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Catculated g/C Ratio 0.07 0.36 0.36 0.08 0.38 0.38 0.31 10.0 23.6 7.0 20.6 20.6 Catculated g/C Ratio 0.07 0.36 0.36 0.08 0.38 0.38 0.31 0.11 0.27 0.08 0.23 0.23 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 5.7 4.0 4.5 4.0 4.5 4.5 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Lane Group Flow (vph)	195	350	102	90	1168	44	343	199	0	114	334	324
Permitted Phases 2 6 6 4 Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Effective Green, g (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated Green, G (s) 6.0 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.3 Actuated Green, G (s) 6.0 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.3 Actuated Protection (s) 4.0 5.7 5.7 4.0 3.0 3.0 3.0 3.0 3.0 3.0 2.2 Actuated Green, G (s) 6.0 31.7 7.4 33.1 33.1 10.0 2.0 0.0 4.0 4.5 4.5 Actuated Creen, G (s) 6.0 31.7 7.0 4.0 3.1 9.0 45.7 4.0 4.5 4.5 Actuated Creen, G (s) 6.0 31.7 7.0 4.0 31.0 32.1 7.0 49.6 Actuated Creen, G (s) 6.0 31.7 7.0 4.0 31.0 31.0 32.4 Protection Summary HCM 2000 Control Delay 37.9 HCM 2000 Level of Service D Actuated Creen Green (s) 6.0 31.7 76.3 8 100 time (s) 18.2 Intersection Capacity Utilization 76.3 ICU Level of Service D Actuated Creen (min) 15	Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Actuated Green, G (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Effective Green, g (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Effective Green, g (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 20.6 Actuated g/C Ratio 0.07 0.36 0.36 0.08 0.38 0.38 0.11 0.27 0.08 0.23 0.23 0.23 0.23 0.23 0.23 0.23 0.23	Protected Phases	5	2		1	6		3	8		7	4	
Effective Green, g (s) 6.0 31.7 31.7 7.4 33.1 33.1 10.0 23.6 7.0 20.6 20.6 Actuated g/C Ratio 0.07 0.36 0.36 0.08 0.38 0.38 0.11 0.27 0.08 0.23 0.23 Clearance Time (s) 4.0 5.7 5.7 5.7 4.0 5.7 5.7 4.0 4.5 4.0 4.5 4.5 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Permitted Phases			2			6						4
Actuated g/C Ratio 0.07 0.36 0.36 0.08 0.38 0.38 0.11 0.27 0.08 0.23 0.23 Clearance Time (s) 4.0 5.7 5.7 4.0 5.7 5.7 4.0 4.5 4.5 4.5 Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Actuated Green, G (s)	6.0	31.7	31.7	7.4	33.1	33.1	10.0	23.6		7.0	20.6	20.6
Clearance Time (s)	Effective Green, g (s)	6.0	31.7	31.7	7.4	33.1	33.1	10.0	23.6		7.0	20.6	20.6
Vehicle Extension (s) 3.0	Actuated g/C Ratio	0.07	0.36	0.36	0.08	0.38	0.38	0.11	0.27		0.08	0.23	0.23
Lane Grp Cap (vph)	Clearance Time (s)		5.7		4.0		5.7	4.0			4.0	4.5	4.5
\(\text{Ws Ratio Prot } \) \(\text{c0.06} \) \(\text{0.10} \) \(\text{c0.06} \) \(\text{0.10} \) \(\text{c0.06} \) \(\text{c0.33} \) \(\text{c0.10} \) \(\text{c0.06} \) \(\text{c0.06} \) \(\text{c0.06} \) \(\text{c0.20} \) \(\text{w/s Ratio Perm} \) \(\text{c0.06} \) \(\text{c0.83} \) \(\text{0.27} \) \(\text{c0.20} \) \(\text{w/s Ratio Perm} \) \(\text{c0.20} \) \(\text{w/s Ratio Perm} \) \(\text{c0.20} \) \(\text{c0.20} \) \(\text{w/s Ratio Perm} \) \(\text{c0.20} \) \(Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
\(\begin{array}{c ccccccccccccccccccccccccccccccccccc	Lane Grp Cap (vph)	234	1276	570	149	1332	596	390	944		140	436	370
\(\text{V/c}\) Ratio \(0.83 \) \(0.27 \) \(0.18 \) \(0.60 \) \(0.88 \) \(0.07 \) \(0.88 \) \(0.21 \) \(0.81 \) \(0.77 \) \(0.88 \) \(0.21 \) \(0.81 \) \(0.77 \) \(0.88 \) \(0.21 \) \(0.81 \) \(0.77 \) \(0.88 \) \(0.21 \) \(0.81 \) \(0.77 \) \(0.88 \) \(0.21 \) \(0.81 \) \(0.77 \) \(0.88 \) \(0.21 \) \(0.81 \) \(0.77 \) \(0.88 \) \(0.21 \) \(0.81 \) \(0.77 \) \(0.88 \) \(0.21 \) \(0.81 \) \(0.77 \) \(0.88 \) \(0.21 \) \(0.85 \) \(0.85 \) \(0.85 \) \(0.10 \) \(0.20 \) \(0.7 \) \(0.85 \) \(0.85 \) \(0.10 \) \(1.00 \) \	v/s Ratio Prot	c0.06	0.10		0.05	c0.33		c0.10	c0.06		0.06	0.18	
Uniform Delay, d1	v/s Ratio Perm			0.06			0.03						c0.20
Progression Factor 1.00 <td>v/c Ratio</td> <td>0.83</td> <td>0.27</td> <td>0.18</td> <td>0.60</td> <td>0.88</td> <td>0.07</td> <td>0.88</td> <td>0.21</td> <td></td> <td>0.81</td> <td>0.77</td> <td>0.88</td>	v/c Ratio	0.83	0.27	0.18	0.60	0.88	0.07	0.88	0.21		0.81	0.77	0.88
Incremental Delay, d2	Uniform Delay, d1	40.5	19.9	19.2	38.8	25.5	17.6	38.4	24.9		39.8	31.4	32.4
Delay (s) 62.2 20.1 19.4 45.6 32.3 17.6 58.0 25.0 68.9 39.3 52.5 Level of Service E C B D C B E C E D D Approach LOS C C C D D D D Intersection Summary HCM 2000 Control Delay 37.9 HCM 2000 Level of Service D D HCM 2000 Unime to Capacity ratio 0.85 Actuated Cycle Length (s) 87.9 Sum of lost time (s) 18.2 Intersection Capacity Utilization 76.3% ICU Level of Service D D Analysis Period (min) 15 ICU Level of Service D D Action 1	Progression Factor		1.00				1.00						1.00
Level of Service E C B D C B E C E D D Approach Delay (s) 29.7 31.9 45.7 49.6 Approach LOS C C D D Intersection Summary HCM 2000 Control Delay 37.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.85 Actuated Cycle Length (s) 87.9 Sum of lost time (s) 18.2 Intersection Capacity Utilization 76.3% ICU Level of Service D Analysis Period (min) 15	Incremental Delay, d2		0.1		6.7	6.8	0.1	19.6			29.1		20.0
Approach Delay (s) 29.7 31.9 45.7 49.6 Approach LOS C C D D Intersection Summary HCM 2000 Control Delay 37.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.85 Actuated Cycle Length (s) 18.2 Intersection Capacity Utilization 76.3% ICU Level of Service D Analysis Period (min) 15	Delay (s)	62.2	20.1	19.4	45.6		17.6	58.0	25.0		68.9	39.3	52.5
Approach LOS C C D D Intersection Summary HCM 2000 Control Delay 37.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.85 Actuated Cycle Length (s) 87.9 Sum of lost time (s) 18.2 Intersection Capacity Utilization 76.3% ICU Level of Service D Analysis Period (min) 15	Level of Service	Е		В	D		В	Е			Е		D
HCM 2000 Control Delay 37.9 HCM 2000 Level of Service D													
HCM 2000 Control Delay 37.9 HCM 2000 Level of Service D HCM 2000 Volume to Capacity ratio 0.85 Capacity Level of Service D Actuated Cycle Length (s) 87.9 Sum of lost time (s) 18.2 Intersection Capacity Utilization 76.3% ICU Level of Service D Analysis Period (min) 15	Approach LOS		С			С			D			D	
HCM 2000 Volume to Capacity ratio 0.85 Actuated Cycle Length (s) 87.9 Sum of lost time (s) 18.2 Intersection Capacity Utilization 76.3% ICU Level of Service D Analysis Period (min) 15	Intersection Summary												
Actuated Cycle Length (s) 87.9 Sum of lost time (s) 18.2 Intersection Capacity Utilization 76.3% ICU Level of Service D Analysis Period (min) 15	HCM 2000 Control Delay			37.9	Н	CM 2000	Level of	Service		D			
Intersection Capacity Utilization 76.3% ICU Level of Service D Analysis Period (min) 15	HCM 2000 Volume to Cap	acity ratio		0.85									
Intersection Capacity Utilization 76.3% ICU Level of Service D Analysis Period (min) 15	Actuated Cycle Length (s)	•		87.9	S	um of los	t time (s)			18.2			
Analysis Period (min) 15		ation		76.3%	IC	CU Level	of Service	9		D			
	Analysis Period (min)			15									
	c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	37	14		140	7+		Ac	To			4	7
Volume (vph)	32	375	24	121	1108	69	47	84	45	147	330	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (prot)	1770	1846		1770	1846		1770	1765			1834	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (perm)	1770	1846		1770	1846		1770	1765			1834	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	408	26	132	1204	75	51	91	49	160	359	236
RTOR Reduction (vph)	0	2	0	0	1	0	0	13	0	0	0	123
Lane Group Flow (vph)	35	432	0	132	1278	0	51	127	0	0	519	113
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	3.5	61.7		13.9	72.1		15.1	15.1			32.6	32.6
Effective Green, g (s)	3.5	61.7		13.9	72.1		15.1	15.1			32.6	32.6
Actuated g/C Ratio	0.02	0.43		0.10	0.51		0.11	0.11			0.23	0.23
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
Lane Grp Cap (vph)	43	800		172	935		187	187			420	362
v/s Ratio Prot	0.02	0.23		c0.07	c0.69		0.03	c0.07			c0.28	
v/s Ratio Perm												0.07
v/c Ratio	0.81	0.54		0.77	1.37		0.27	0.68			1.24	0.31
Uniform Delay, d1	69.1	29.8		62.6	35.1		58.5	61.3			54.9	45.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	68.4	1.3		17.6	171.7		1.4	11.0			125.1	0.9
Delay (s)	137.4	31.1		80.2	206.8		59.9	72.2			180.0	46.4
Level of Service	F	С		F	F		Е	Е			F	D
Approach Delay (s)		39.1			195.0			68.9			138.2	
Approach LOS		D			F			Е			F	
Intersection Summary												
HCM 2000 Control Delay			145.4	Н	CM 2000	Level of S	ervice		F			
HCM 2000 Volume to Cap			1.24									
Actuated Cycle Length (s)	-		142.3	S	um of los	t time (s)			19.0			
Intersection Capacity Utiliz	zation		114.7%	IC	CU Level	of Service			Н			
Analysis Period (min)			15									
c Critical Lane Group												
-												

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Cumulative+PP AM Peak Dixon Ranch
4: Loch Way & Green Valley Rd

Cumulative+PP
4: Loch Way & Green Valley Rd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	54,	Jal.	D.		JAC.	130			4	
Volume (vph)	3	329	259	190	858	27	464	77	86	6	47	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.92			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1863	1583	1770	1854		1770	1716			1826	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1863	1583	1770	1854		1770	1716			1826	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	358	282	207	933	29	504	84	93	7	51	7
RTOR Reduction (vph)	0	0	169	0	1	0	0	25	0	0	3	0
Lane Group Flow (vph)	3	358	113	207	961	0	504	152	0	0	62	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6									
Actuated Green, G (s)	0.7	47.0	47.0	17.1	63.4		42.3	42.3			8.0	
Effective Green, g (s)	0.7	47.0	47.0	17.1	63.4		42.3	42.3			8.0	
Actuated g/C Ratio	0.01	0.35	0.35	0.13	0.48		0.32	0.32			0.06	
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Vehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
Lane Grp Cap (vph)	9	659	560	228	885		564	546			110	
v/s Ratio Prot	0.00	0.19		c0.12	c0.52		c0.28	0.09			c0.03	
v/s Ratio Perm			0.07									
v/c Ratio	0.33	0.54	0.20	0.91	1.09		0.89	0.28			0.57	
Uniform Delay, d1	65.8	34.3	29.8	57.0	34.6		43.1	33.8			60.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	15.2	0.9	0.2	35.3	56.5		16.4	0.2			5.3	
Delay (s)	81.0	35.2	30.0	92.3	91.1		59.5	34.0			66.0	
Level of Service	F	D	С	F	F		Е	С			Е	
Approach Delay (s)		33.1			91.3			52.8			66.0	
Approach LOS		С			F			D			Е	
Intersection Summary												
HCM 2000 Control Delay			65.8	Н	CM 2000	Level of	Service		Е			
HCM 2000 Volume to Capac	ity ratio		0.99									
Actuated Cycle Length (s)			132.7	S	um of los	t time (s)			18.3			
Intersection Capacity Utilizati	ion		94.4%	IC	CU Level	of Service)		F			
Analysis Period (min)			15									
Critical Lane Group												

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			্ৰ	18	[[‡]
Volume (veh/h)	448	16	7	940	29	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	487	17	8	1022	32	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			504		1533	496
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			504		1533	496
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		75	99
cM capacity (veh/h)			1060		127	574
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	504	1029	32	8		
Volume Left	0	8	32	0		
Volume Right	17	0	0	8		
cSH	1700	1060	127	574		
Volume to Capacity	0.30	0.01	0.25	0.01		
Queue Length 95th (ft)	0	1	23	1		
Control Delay (s)	0.0	0.2	42.3	11.4		
Lane LOS		A	E	В		
Approach Delay (s)	0.0	0.2	36.3			
Approach LOS			Е			
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utili	zation		65.0%	IC	U Level	of Service
Analysis Period (min)			15			
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	•	-	•	•	-	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	To		gla		
Volume (veh/h)	11	455	947	4	12	28	
Sign Control	• • • • • • • • • • • • • • • • • • • •	Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	12	495	1029	4	13	30	
Pedestrians	12	100	1020		10	00	
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)		110110	140110				
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	1034				1550	1032	
vC1, stage 1 conf vol	1001				1000		
vC2, stage 2 conf vol							
vCu, unblocked vol	1034				1550	1032	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)					U. 1	V. _	
tF (s)	2.2				3.5	3.3	
p0 queue free %	98				89	89	
cM capacity (veh/h)	672				123	283	
		14/D 4	00.4		.20	200	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	507	1034	43				
Volume Left	12	0	13				
Volume Right	0	4	30				
cSH	672	1700	204				
Volume to Capacity	0.02	0.61	0.21				
Queue Length 95th (ft)	1	0	20				
Control Delay (s)	0.5	0.0	27.4				
Lane LOS	A		D				
Approach Delay (s)	0.5	0.0	27.4				
Approach LOS			D				
Intersection Summary							
Average Delay			0.9				
Intersection Capacity Utiliz	ation		60.1%	IC	CU Level	of Service	
Analysis Period (min)			15				

	•	→	←	•	>	4
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		ৰ	10		44	
Volume (veh/h)	7	419	899	2	10	25
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	455	977	2	11	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	979				1449	978
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	979				1449	978
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				92	91
cM capacity (veh/h)	705				143	304
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	463	979	38			
Volume Left	8	0	11			
Volume Right	0	2	27			
cSH	705	1700	230			
Volume to Capacity	0.01	0.58	0.17			
Queue Length 95th (ft)	1	0	15			
Control Delay (s)	0.3	0.0	23.7			
Lane LOS	Α		С			
Approach Delay (s)	0.3	0.0	23.7			
Approach LOS			С			
Intersection Summary						
Average Delay			0.7			-
Intersection Capacity Utiliz	zation		57.4%	IC	U Level	of Service
Analysis Period (min)			15			

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Cumulative+PP AM Peak Dixon Ranch 8: Silver Springs Pkwy & Green Valley Rd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3/2	T.		Jal.	7.			4			4	
Volume (veh/h)	8	363	4	11	637	7	22	0	32	25	0	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	395	4	12	692	8	24	0	35	27	0	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	700			399			1177	1138	397	1167	1136	696
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	700			399			1177	1138	397	1167	1136	696
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			84	100	95	83	100	89
cM capacity (veh/h)	897			1160			148	197	653	159	198	442
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	9	399	12	700	59	74						
Volume Left	9	0	12	0	24	27						
Volume Right	0	4	0	8	35	47						
cSH	897	1700	1160	1700	273	267						
Volume to Capacity	0.01	0.23	0.01	0.41	0.22	0.28						
Queue Length 95th (ft)	1	0	1	0	20	27						
Control Delay (s)	9.1	0.0	8.1	0.0	21.8	23.6						
Lane LOS	Α		Α		С	С						
Approach Delay (s)	0.2		0.1		21.8	23.6						
Approach LOS					С	С						
Intersection Summary												
Average Delay			2.6			_						
Intersection Capacity Utilizat	ion		45.6%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	1			4	pha.				
Volume (vph)	710	47	9	960	113	26			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0			4.0	4.0				
Lane Util. Factor	1.00			1.00	1.00				
Frt	0.99			1.00	0.97				
Flt Protected	1.00			1.00	0.96				
Satd. Flow (prot)	1847			1862	1745				
Flt Permitted	1.00			0.99	0.96				
Satd. Flow (perm)	1847			1850	1745				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	772	51	10	1043	123	28			
RTOR Reduction (vph)	3	0	0	0	16	0			
Lane Group Flow (vph)	820	0	0	1053	135	0			
Turn Type	NA		Perm	NA	NA				
Protected Phases	4			8	2				
Permitted Phases			8						
Actuated Green, G (s)	33.9			33.9	9.3				
Effective Green, g (s)	33.9			33.9	9.3				
Actuated g/C Ratio	0.66			0.66	0.18				
Clearance Time (s)	4.0			4.0	4.0				
Vehicle Extension (s)	3.0			3.0	3.0				
Lane Grp Cap (vph)	1222			1224	316				
v/s Ratio Prot	0.44				c0.08				
v/s Ratio Perm				c0.57					
v/c Ratio	0.67			0.86	0.43				
Uniform Delay, d1	5.3			6.8	18.6				
Progression Factor	1.00			1.00	1.00				
Incremental Delay, d2	1.5			6.4	0.9				
Delay (s)	6.7			13.2	19.5				
Level of Service	Α			В	В				
Approach Delay (s)	6.7			13.2	19.5				
Approach LOS	Α			В	В				
Intersection Summary									
HCM 2000 Control Delay			11.0	Н	CM 2000	Level of Service	Э	В	
HCM 2000 Volume to Capa	acity ratio		0.77						
Actuated Cycle Length (s)			51.2	S	um of lost	t time (s)		8.0	
Intersection Capacity Utiliza	ation		72.2%	IC	CU Level	of Service		С	
Analysis Period (min)			15						
c Critical Lane Group									

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6/17/2013 Kimley-Horn and Associates, Inc.

Cumulative+PP AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	"	To		ja,	7.		140	10			4
Volume (vph)	13	488	106	24	570	7	228	2	53	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00
Frt	1.00	0.97		1.00	1.00		1.00	0.85			0.90
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99
Satd. Flow (prot)	1770	1813		1770	1859		1770	1593			1667
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.99
Satd. Flow (perm)	1770	1813		1770	1859		1770	1593			1667
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	530	115	26	620	8	248	2	58	16	5
RTOR Reduction (vph)	0	8	0	0	1	0	0	46	0	0	47
Lane Group Flow (vph)	14	637	0	26	627	0	248	14	0	0	24
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA
Protected Phases	7	4		3	8		2	2		6	6
Permitted Phases											
Actuated Green, G (s)	0.6	29.1		1.3	29.8		13.2	13.2			4.0
Effective Green, g (s)	0.6	29.1		1.3	29.8		13.2	13.2			4.0
Actuated g/C Ratio	0.01	0.46		0.02	0.47		0.21	0.21			0.06
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)	16	829		36	871		367	330			104
v/s Ratio Prot	0.01	c0.35		c0.01	0.34		c0.14	0.01			c0.01
v/s Ratio Perm											
v/c Ratio	0.88	0.77		0.72	0.72		0.68	0.04			0.23
Uniform Delay, d1	31.5	14.4		31.0	13.6		23.2	20.1			28.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2	161.3	4.3		52.1	3.0		4.9	0.1			1.1
Delay (s)	192.7	18.7		83.1	16.5		28.1	20.2			29.5
Level of Service	F	В		F	В		С	С			С
Approach Delay (s)		22.4			19.2			26.6			29.5
Approach LOS		С			В			С			С
Intersection Summary											
HCM 2000 Control Delay			22.2	Н	CM 2000	Level of	Service		С		
HCM 2000 Volume to Cap	acity ratio		0.70								
Actuated Cycle Length (s)			63.6		um of los				16.0		
Intersection Capacity Utiliz	ation		58.1%	IC	U Level	of Service	•		В		
Analysis Period (min)			15								
c Critical Lane Group											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	Th		Jal.	7.			4	7"		4	
Volume (vph)	6	481	178	178	673	6	269	4	84	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.96		1.00	1.00			1.00	0.85		0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1787		1770	1860			1775	1583		1695	
Flt Permitted	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1787		1770	1860			1775	1583		1695	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	523	193	193	732	7	292	4	91	1	0	1
RTOR Reduction (vph)	0	13	0	0	0	0	0	0	73	0	2	0
Lane Group Flow (vph)	7	703	0	193	739	0	0	296	18	0	0	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	0.7	35.4		10.0	44.7			15.8	15.8		1.0	
Effective Green, g (s)	0.7	35.4		10.0	44.7			15.8	15.8		1.0	
Actuated g/C Ratio	0.01	0.45		0.13	0.57			0.20	0.20		0.01	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	15	808		226	1063			358	319		21	
v/s Ratio Prot	0.00	c0.39		c0.11	0.40			c0.17			c0.00	
v/s Ratio Perm									0.01			
v/c Ratio	0.47	0.87		0.85	0.69			0.83	0.06		0.00	
Uniform Delay, d1	38.6	19.3		33.4	11.9			29.9	25.2		38.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	21.2	10.1		25.5	2.0			14.4	0.1		0.0	
Delay (s)	59.8	29.4		58.9	13.9			44.3	25.3		38.1	
Level of Service	Е	С		Е	В			D	С		D	
Approach Delay (s)		29.7			23.2			39.8			38.1	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			28.7	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacit	y ratio		0.84									
Actuated Cycle Length (s)			78.2		um of lost				16.0			
Intersection Capacity Utilization	n		77.8%	IC	U Level	of Service			D			
Analysis Period (min)			15									

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6/17/2013 Kimley-Horn and Associates, Inc.

c Critical Lane Group

Cumulative+PP AM Peak

11: Cameron Park Dr. & Green Valley Rd.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3	To.		Jal.	14		Jac.	10		19	To a	
Volume (vph)	29	184	339	123	271	5	310	19	86	10	69	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.90		1.00	1.00		1.00	0.88		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1682		1770	1858		1770	1635		1770	1787	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1682		1770	1858		1770	1635		1770	1787	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	200	368	134	295	5	337	21	93	11	75	28
RTOR Reduction (vph)	0	76	0	0	1	0	0	62	0	0	19	0
Lane Group Flow (vph)	32	492	0	134	299	0	337	52	0	11	84	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.9	24.7		7.1	29.9		15.9	24.7		0.7	9.5	
Effective Green, g (s)	1.9	24.7		7.1	29.9		15.9	24.7		0.7	9.5	
Actuated g/C Ratio	0.03	0.34		0.10	0.41		0.22	0.34		0.01	0.13	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	45	567		171	758		384	551		16	231	
v/s Ratio Prot	0.02	c0.29		c0.08	0.16		c0.19	0.03		0.01	c0.05	
v/s Ratio Perm												
v/c Ratio	0.71	0.87		0.78	0.39		0.88	0.10		0.69	0.36	
Uniform Delay, d1	35.4	22.7		32.3	15.3		27.7	16.6		36.1	29.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	41.4	13.3		20.5	0.3		19.6	0.1		80.1	1.0	
Delay (s)	76.8	36.0		52.8	15.6		47.3	16.7		116.2	30.1	
Level of Service	E	D		D	В		D	В		F	С	
Approach Delay (s)		38.2			27.1			39.6			38.4	
Approach LOS		D			С			D			D	
Intersection Summary												
HCM 2000 Control Delay		35.6	Н	CM 2000	Level of	Service		D				
CM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)				S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	tion		71.1%	IC	U Level	of Service)		С			
Analysis Period (min)			15									
- Cultinal Laura Currier												

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Dixon Ranch 12: El Dorado Hills Blvd. & Francisco Dr. Cumulative+PP

Lane Configurations Stop Stop	.	.	>	~	†	4	•	←	•	•	→	۶	
Sign Control Stop Stop Stop Volume (vph) 2 51 485 48 66 46 407 156 42 129 Peak Hour Factor 0.92	SBT	L :	SBL	NBR	NBT	NBL	WBR	WBT	WBL	EBR	EBT	EBL	Movement
Volume (vph) 2 51 485 48 66 46 407 156 42 129 Peak Hour Factor 0.92 442 0 140 0 0 5 442 0 140 0 0 5 442 0 140	1>	5	19		P	,te		4		74	4		Lane Configurations
Peak Hour Factor 0.92 0.93 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93	Stop	,			Stop			Stop			Stop		Sign Control
Hourly flow rate (vph) 2 55 527 52 72 50 442 170 46 140	383	9	129	42	156	407	46	66	48	485	51	2	Volume (vph)
Direction, Lane #	0.92	2 (0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	Peak Hour Factor
Volume Total (vph) 58 527 174 442 215 140 422 Volume Left (vph) 2 0 52 442 0 140 0 Volume Right (vph) 0 527 50 0 46 0 5 Hadj (s) 0.04 -0.57 -0.08 0.53 -0.11 0.53 0.02 Departure Headway (s) 7.4 3.2 6.8 6.7 6.1 6.9 6.4 Degree Utilization, x 0.12 0.47 0.33 0.83 0.36 0.27 0.74 Capacity (veh/h) 443 1116 501 527 579 508 551 Control Delay (s) 11.3 9.0 13.0 33.0 11.3 11.2 24.4 Approach Delay (s) 9.2 13.0 25.9 21.1 Approach LOS A B D C Intersection Summary 18.5 Level of Service C Intersection	416	0	140	46	170	442	50	72	52	527	55	2	Hourly flow rate (vph)
Volume Left (vph) 2 0 52 442 0 140 0 Volume Right (vph) 0 527 50 0 46 0 5 Hadj (s) 0.04 -0.57 -0.08 0.53 -0.11 0.53 0.02 Departure Headway (s) 7.4 3.2 6.8 6.7 6.1 6.9 6.4 Degree Utilization, x 0.12 0.47 0.33 0.83 0.36 0.27 0.74 Capacity (veh/h) 443 1116 501 527 579 508 551 Control Delay (s) 11.3 9.0 13.0 33.0 11.3 11.2 24.4 Approach LOS A B D C Intersection Summary Delay 18.5 Level of Service C C Intersection Capacity Utilization 69.4% ICU Level of Service C						SB 2	SB 1	NB 2	NB 1	WB 1	EB 2	EB 1	Direction, Lane #
Volume Right (vph) 0 527 50 0 46 0 5 Hadj (s) 0.04 -0.57 -0.08 0.53 -0.11 0.53 0.02 Departure Headway (s) 7.4 3.2 6.8 6.7 6.1 6.9 6.4 Degree Utilization, x 0.12 0.47 0.33 0.83 0.36 0.27 0.74 Capacity (veh/h) 443 1116 501 527 579 508 551 Control Delay (s) 11.3 9.0 13.0 33.0 11.3 11.2 24.4 Approach Delay (s) 9.2 13.0 25.9 21.1 Approach LOS A B D C Intersection Summary Delay 18.5 Level of Service C Intersection Capacity Utilization 69.4% ICU Level of Service C						422	140	215	442	174	527	58	Volume Total (vph)
Hadj (s) 0.04 -0.57 -0.08 0.53 -0.11 0.53 0.02 Departure Headway (s) 7.4 3.2 6.8 6.7 6.1 6.9 6.4 Degree Utilization, x 0.12 0.47 0.33 0.83 0.36 0.27 0.74 Capacity (veh/h) 443 1116 501 527 579 508 551 Control Delay (s) 11.3 9.0 13.0 33.0 11.3 11.2 24.4 Approach Delay (s) 9.2 13.0 25.9 21.1 Approach LOS A B D C Intersection Summary Delay 18.5 Level of Service C Intersection Capacity Utilization 69.4% ICU Level of Service C						0	140	0	442	52	0	2	Volume Left (vph)
Departure Headway (s) 7.4 3.2 6.8 6.7 6.1 6.9 6.4						5	0	46	0	50	527	0	Volume Right (vph)
Degree Utilization, x						0.02	0.53	-0.11	0.53	-0.08	-0.57	0.04	Hadj (s)
Capacity (veh/h) 443 1116 501 527 579 508 551 Control Delay (s) 11.3 9.0 13.0 33.0 11.3 11.2 24.4 Approach Delay (s) 9.2 13.0 25.9 21.1 Approach LOS A B D C Intersection Summary Delay 18.5 Level of Service C Intersection Capacity Utilization 69.4% ICU Level of Service C						6.4	6.9	6.1	6.7	6.8	3.2	7.4	Departure Headway (s)
Control Delay (s) 11.3 9.0 13.0 33.0 11.3 11.2 24.4 Approach Delay (s) 9.2 13.0 25.9 21.1 Approach LOS A B D C Intersection Summary Delay 18.5 Level of Service C Intersection Capacity Utilization 69.4% ICU Level of Service C						0.74	0.27	0.36	0.83	0.33	0.47	0.12	Degree Utilization, x
Approach Delay (s) 9.2 13.0 25.9 21.1 Approach LOS A B D C Intersection Summary Delay 18.5 Level of Service C Intersection Capacity Utilization 69.4% ICU Level of Service C						551	508	579	527	501	1116	443	Capacity (veh/h)
Approach LOS A B D C Intersection Summary						24.4	11.2	11.3	33.0	13.0	9.0	11.3	Control Delay (s)
Thetrsection Summary							21.1		25.9	13.0		9.2	Approach Delay (s)
Delay 18.5 Level of Service C Intersection Capacity Utilization 69.4% ICU Level of Service C							С		D	В		Α	Approach LOS
Level of Service C Intersection Capacity Utilization 69.4% ICU Level of Service C													Intersection Summary
Intersection Capacity Utilization 69.4% ICU Level of Service C										18.5			Delay
										С			Level of Service
Analysis Period (min) 15				С			of Service	U Level	IC	69.4%		on	Intersection Capacity Utilization
Taladysis Foliac (min)										15			Analysis Period (min)

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Cumulative+PP AM Peak Dixon Ranch 14: El Dorado Hills Blvd. & Serrano Pkwy.

	•	•	†	/	-	↓			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	35	j#	44	ř	14.46	+ +			
Volume (vph)	494	189	354	393	329	945			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	0.95	1.00	0.97	0.95			
Frt	1.00	0.85	1.00	0.85	1.00	1.00			
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00			
Satd. Flow (prot)	1770	1583	3539	1583	3433	3539			
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00			
Satd. Flow (perm)	1770	1583	3539	1583	3433	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	537	205	385	427	358	1027			
RTOR Reduction (vph)	0	128	0	325	0	0			
Lane Group Flow (vph)	537	77	385	102	358	1027			
Turn Type	NA	Perm	NA	Perm	Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8		2					
Actuated Green, G (s)	19.7	19.7	12.5	12.5	8.1	24.6			
Effective Green, g (s)	19.7	19.7	12.5	12.5	8.1	24.6			
Actuated g/C Ratio	0.38	0.38	0.24	0.24	0.15	0.47			
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	666	596	845	378	531	1664			
v/s Ratio Prot	c0.30		0.11		0.10	c0.29			
//s Ratio Perm		0.05		0.06					
v/c Ratio	0.81	0.13	0.46	0.27	0.67	0.62			
Uniform Delay, d1	14.6	10.7	17.0	16.2	20.9	10.3			
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	7.1	0.1	0.4	0.4	3.4	0.7			
Delay (s)	21.7	10.8	17.4	16.6	24.2	11.0			
Level of Service	С	В	В	В	С	В			
Approach Delay (s)	18.7		17.0			14.4			
Approach LOS	В		В			В			
Intersection Summary									
HCM 2000 Control Delay			16.2	Н	CM 2000	Level of Service	e	В	
HCM 2000 Volume to Capac		0.77							
Actuated Cycle Length (s)		52.3	S	um of los	t time (s)		12.0		
Intersection Capacity Utilizat	tersection Capacity Utilization			IC	U Level	of Service		В	
Analysis Period (min)			15						
Critical Lane Group									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	16	T.		Jal.	4		140	44	P ^a	14	41	
Volume (vph)	30	20	114	729	20	124	32	782	395	86	1672	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.87		1.00	0.96		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1625		1681	1638		1770	3539	1583	1770	3529	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1625		1681	1638		1770	3539	1583	1770	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	22	124	792	22	135	35	850	429	93	1817	34
RTOR Reduction (vph)	0	25	0	0	10	0	0	0	0	0	1	0
Lane Group Flow (vph)	33	121	0	483	456	0	35	850	429	93	1850	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	9.0	9.0		44.9	44.9		3.0	71.5	150.0	10.4	78.9	
Effective Green, g (s)	9.0	9.0		44.9	44.9		3.0	71.5	150.0	10.4	78.9	
Actuated g/C Ratio	0.06	0.06		0.30	0.30		0.02	0.48	1.00	0.07	0.53	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	106	97		503	490		35	1686	1583	122	1856	
v/s Ratio Prot	0.02	c0.07		c0.29	0.28		c0.02	0.24		0.05	c0.52	
v/s Ratio Perm									0.27			
v/c Ratio	0.31	1.24		0.96	0.93		1.00	0.50	0.27	0.76	1.00	
Uniform Delay, d1	67.5	70.5		51.7	51.0		73.5	27.0	0.0	68.6	35.4	
Progression Factor	1.00	1.00		1.00	1.00		0.63	0.26	1.00	1.00	1.00	
Incremental Delay, d2	0.6	170.5		30.0	24.3		148.3	1.0	0.4	22.0	20.1	
Delay (s)	68.1	241.0		81.6	75.3		194.9	8.0	0.4	90.6	55.6	
Level of Service	Е	F		F	Е		F	Α	Α	F	Е	
Approach Delay (s)		209.1			78.6			10.5			57.2	
Approach LOS		F			Е			В			Е	
Intersection Summary												
HCM 2000 Control Delay			54.1	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		1.00									
Actuated Cycle Length (s)	ony rano		150.0	S	um of los	t time (s)			14.2			
Intersection Capacity Utiliza	tion		97.5%		U Level)		F			
Analysis Period (min)			15									
c Critical Lane Group			.,									

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6/17/2013 Kimley-Horn and Associates, Inc.

1900

4.0

0.95

1.00

0.95

1681

0.95

1681

0.92

0

23

Split

6.9

6.9

0.05

4.0

0.2

77

c0.01

0.30

69.2

1.00

0.8

70.0

1900

4.0

0.95

1.00

0.98

1728

0.98

1728

0.92

0 211

23

NA

6.9

6.9

0.05

4.0

0.2

79

0.01

0.29

69.2

1.00

0.7

69.9

69.2

Ε

1900

1.00

0.85

1.00

1583

1.00

1583

221

10

Prot

6.9

6.9

0.05

4.0

0.2

72

0.01

0.14

68.7

1.00

0.3

69.0

34.2

0.98

150.0

94.2%

15

Ε

1900

4.0

1.00

1.00

0.95

1770

0.95

1770

0.92

Split

6.1

0.04

4.0

0.2

71

0.01

0.24

69.7

1.00

0.6

70.3

Movement Lane Configurations Volume (vph)

Ideal Flow (vphpl)

Total Lost time (s)

Lane Util. Factor

Satd. Flow (prot)

Satd. Flow (perm)

Adj. Flow (vph)

Protected Phases Permitted Phases Actuated Green, G (s)

Effective Green, g (s)

Actuated g/C Ratio

Clearance Time (s)

Vehicle Extension (s)

Lane Grp Cap (vph)

v/s Ratio Prot

v/s Ratio Perm v/c Ratio

Delay (s) Level of Service

Uniform Delay, d1

Progression Factor

Approach Delay (s)

Intersection Summary

HCM 2000 Control Delay HCM 2000 Volume to Capacity ratio

Actuated Cycle Length (s)

Analysis Period (min)

c Critical Lane Group

Intersection Capacity Utilization

Approach LOS

Incremental Delay, d2

Turn Type

Peak-hour factor, PHF

RTOR Reduction (vph)

Lane Group Flow (vph)

Flt Protected

Flt Permitted

Frt

Cumulative+PP AM Peak

Dixon Ranch 16: El Dorado Hills Blvd. & Saratoga Wy. (South) Cumulative+PP AM Peak

	,							
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BL.	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ψį	14		β¢	ተተ1»		*5	41>	
16	13	63	191	1115	42	137	2351	27
900	1900	1900	1900	1900	1900	1900	1900	1900
4.0	4.0		4.0	4.0		4.0	4.0	
.00	1.00		1.00	0.91		1.00	0.95	
.00	0.88		1.00	0.99		1.00	1.00	
.95	1.00		0.95	1.00		0.95	1.00	
770	1631		1770	5057		1770	3533	
.95	1.00		0.95	1.00		0.95	1.00	
770	1631		1770	5057		1770	3533	
.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
17	14	68	208	1212	46	149	2555	29
0	65	0	0	2	0	0	0	0
17	17	0	208	1256	0	149	2584	0
plit	NA		Prot	NA		Prot	NA	
8	8		1	6		5	2	
							_	
6.1	6.1		12.0	98.3		21.0	107.3	
6.1	6.1		12.0	100.0		21.0	109.0	
.04	0.04		0.08	0.67		0.14	0.73	
4.0	4.0		4.0	5.7		4.0	5.7	
0.2	0.2		0.2	4.2		0.2	4.2	
71	66		141	3371		247	2567	
.01	c0.01		c0.12	0.25		0.08	c0.73	
	50.0.		JU. 12	0.20		0.00	555	
.24	0.25		1.48	0.37		0.60	1.01	
9.7	69.7		69.0	11.1		60.6	20.5	
.00	1.00		0.95	0.18		0.80	0.53	
0.6	0.7		243.6	0.3		0.8	11.0	
0.3	70.5		308.8	2.3		49.1	21.8	
Ε	E		F	A		D	С	
	70.5			45.8			23.3	
	Е			D			С	
H	CM 2000	100 Level of Service C						
S	um of lost	time (s)			16.0			
IC	CU Level of	of Service	9		F			

6/17/2013 Kimley-Horn and Associates, Inc. Synchro 8 - Report Page 15 6/17/2013 Kimley-Horn and Associates, Inc.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			74.54			74		444	i"	19	1111	
Volume (vph)	0	0	1606	0	0	477	0	1698	245	724	1885	0
	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1746	0	0	518	0	1846	266	787	2049	0
RTOR Reduction (vph)	0	0	5	0	0	0	0	0	72	0	0	0
Lane Group Flow (vph)	0	0	1741	0	0	518	0	1846	194	787	2049	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			121.6			150.0		66.4	66.4	75.6	96.0	
Effective Green, q (s)			121.6			150.0		66.4	66.4	75.6	96.0	
Actuated g/C Ratio			0.81			1.00		0.44	0.44	0.50	0.64	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			2333			1611		2250	700	892	4101	
v/s Ratio Prot			0.23					c0.36		c0.44	0.32	
v/s Ratio Perm			0.40			0.32			0.12			
v/c Ratio			0.75			0.32		0.82	0.28	0.88	0.50	
Uniform Delay, d1			6.8			0.0		36.6	26.6	33.2	14.3	
Progression Factor			1.00			1.00		1.00	1.00	0.35	0.43	
Incremental Delay, d2			1.3			0.5		3.5	1.0	5.5	0.2	
Delay (s)			8.1			0.5		40.1	27.5	17.2	6.4	
Level of Service			Α			Α		D	С	В	Α	
Approach Delay (s)		8.1			0.5			38.5			9.4	
Approach LOS		Α			Α			D			Α	
Intersection Summary												
HCM 2000 Control Delay			17.0	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity r	atio		0.85		J., 2000	2310101	2311100					
Actuated Cycle Length (s)	allo		150.0	S	um of los	t time (s)			8.0			
Intersection Capacity Utilization			90.2%			of Service			6.0 F			
Analysis Period (min)			15	10	C LOVEI	0. 00. 100			_			
c Critical Lane Group			13									
5 S.Ioui Eurio Oroup												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3	4	54,				30, 30	44			44	7
Volume (vph)	486	0	148	0	0	0	791	775	0	0	1376	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.91	0.95				0.97	0.95			0.95	1.00
Frt	1.00	0.99	0.85				1.00	1.00			1.00	0.85
Flt Protected	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1605	1504				3433	3539			3539	1583
Flt Permitted	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1605	1504				3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	528	0	161	0	0	0	860	842	0	0	1496	674
RTOR Reduction (vph)	0	50	119	0	0	0	0	0	0	0	0	257
Lane Group Flow (vph)	275	219	26	0	0	0	860	842	0	0	1496	417
Turn Type	Split	NA	Perm				Prot	NA			NA	Perm
Protected Phases	4	4					5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	16.0	16.0	16.0				23.0	66.0			39.0	39.0
Effective Green, g (s)	16.0	16.0	16.0				23.0	66.0			39.0	39.0
Actuated g/C Ratio	0.18	0.18	0.18				0.26	0.73			0.43	0.43
Clearance Time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	298	285	267				877	2595			1533	685
v/s Ratio Prot	c0.16	0.14					c0.25	0.24			c0.42	
v/s Ratio Perm			0.02									0.26
v/c Ratio	0.92	0.77	0.10				0.98	0.32			0.98	0.61
Uniform Delay, d1	36.4	35.2	31.0				33.3	4.2			25.0	19.6
Progression Factor	1.00	1.00	1.00				1.00	1.00			0.73	0.69
Incremental Delay, d2	32.5	11.7	0.2				25.6	0.3			3.3	0.4
Delay (s)	68.9	47.0	31.1				58.8	4.5			21.5	13.8
Level of Service	Е	D	С				Е	Α			С	В
Approach Delay (s)		52.4			0.0			32.0			19.1	
Approach LOS		D			Α			С			В	
Intersection Summary												
HCM 2000 Control Delay			28.9	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.97									
Actuated Cycle Length (s)	•		90.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utiliza	ation		85.6%	IC	U Level	of Service			Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Cumulative+PP AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				Jal.	4	74	Jal.	44			44	#
Volume (vph)	0	0	0	701	0	563	466	795	0	0	1295	681
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.91	0.95	1.00	0.95			0.95	1.00
Frt				1.00	0.94	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.97	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1549	1504	1770	3539			3539	1583
Flt Permitted				0.95	0.97	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1549	1504	1770	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	762	0	612	507	864	0	0	1408	740
RTOR Reduction (vph)	0	0	0	0	46	151	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	480	413	284	507	864	0	0	1408	740
Turn Type				Split	NA	Perm	Prot	NA			NA	Free
Protected Phases				8	8		5	2			6	
Permitted Phases						8						Free
Actuated Green, G (s)				22.0	22.0	22.0	23.0	60.0			33.0	90.0
Effective Green, g (s)				22.0	22.0	22.0	23.0	60.0			33.0	90.0
Actuated g/C Ratio				0.24	0.24	0.24	0.26	0.67			0.37	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				410	378	367	452	2359			1297	1583
v/s Ratio Prot				c0.29	0.27		c0.29	0.24			c0.40	
v/s Ratio Perm						0.19						0.47
v/c Ratio				1.17	1.09	0.77	1.12	0.37			1.09	0.47
Uniform Delay, d1				34.0	34.0	31.7	33.5	6.6			28.5	0.0
Progression Factor				1.00	1.00	1.00	1.00	0.59			0.83	1.00
Incremental Delay, d2				100.0	73.4	9.8	77.1	0.4			47.9	0.7
Delay (s)				134.0	107.4	41.4	110.5	4.3			71.7	0.7
Level of Service				F	F	D	F	Α			E	Α
Approach Delay (s)		0.0			95.8			43.6			47.2	
Approach LOS		Α			F			D			D	
Intersection Summary												
HCM 2000 Control Delay			59.8	Н	CM 2000	Level of	Service		Е			
HCM 2000 Volume to Capacit	y ratio		1.12									
Actuated Cycle Length (s)			90.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utilization	n		96.8%	IC	CU Level	of Service)		F			
Analysis Period (min)			15									
c Critical Lane Group												

Configurations		•	•	†	/	-	↓		
turne (vph)	Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Secretion Secr	ane Configurations) j	j.	41		1	个		
tal Lost time (s)	/olume (vph)	255	246	1107	252	1	1720		
Type	deal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
1.00	Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		
Protected 0.95 1.00 1.00 0.95 1.00 td. Flow (prot) 1770 1583 3441 1770 3539	ane Util. Factor	1.00	1.00	0.95		1.00	0.95		
td. Flow (prot) 1770 1583 3441 1770 3539 Permitted 0.95 1.00 1.00 0.95 1.00 td. Flow (perm) 1770 1583 3441 1770 3539 ak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 j. Flow (vph) 277 267 1203 274 1 1870 OR Reduction (vph) 0 110 17 0 0 0 ne Group Flow (vph) 277 157 1460 0 1 1870 mr Type NA Perm NA Prot NA prot NA prot NA prot NA reticted Phases 8 2 1 1 6 mitted Phases 8 tuated Green, G (s) 18.6 18.6 58.6 0.8 63.4 retictive Green, g (s) 18.6 18.6 58.6 0.8 63.4 retictive Green, g (s) 18.6 18.6 58.6 0.8 63.4 retictive Green, g (s) 18.6 18.6 58.6 0.0 0.8 63.4 retictive Green, g (s) 18.6 18.6 58.6 0.8 63.4 retictive Green, g (s) 18.	Frt	1.00	0.85	0.97		1.00	1.00		
Permitted	Flt Protected	0.95	1.00	1.00		0.95	1.00		
td. Flow (perm) 1770 1583 3441 1770 3539 ak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Satd. Flow (prot)	1770	1583	3441		1770	3539		
ak-hour factor, PHF	It Permitted	0.95	1.00	1.00		0.95	1.00		
j. Flow (vph) 277 267 1203 274 1 1870 OR Reduction (vph) 0 110 177 0 0 0 0 me Group Flow (vph) 277 157 1460 0 1 1870 mr Type NA Perm NA Prot NA tleeted Phases 8 2 1 1 6 mitted Phases 8 2 1 1 6 mitted Phases 8 2 1 6 mitted Phases 8 6 tuated Green, G (s) 18.6 18.6 58.6 0.8 63.4 elective Green, g (s) 18.6 18.6 58.6 0.8 63.4 tuated g/C Ratio 0.21 0.21 0.65 0.01 0.70 earance Time (s) 4.0 4.0 4.0 4.0 4.0 earance Time (s) 3.0 3.0 3.0 3.0 3.0 me Grp Cap (vph) 365 327 2240 15 2493 m. Ratio Prot c0.16 0.42 0.00 c0.53 m. Ratio Prot c0.16 0.42 0.00 c0.53 m. Ratio Prot c0.16 0.42 0.00 c0.53 m. Ratio 0.76 0.48 0.65 0.07 0.75 iform Delay, d1 33.6 31.4 9.5 44.2 8.3 ogression Factor 1.00 1.00 1.28 1.00 1.00 remental Delay, d2 8.8 1.1 1.2 1.9 2.1 lay (s) 42.4 32.5 13.4 46.1 10.5 vel of Service D C B D B proach Delay (s) 37.5 13.4 10.5 proach LOS D B B B ersection Summary EM 2000 Control Delay 15.4 HCM 2000 Level of Service B MM 2000 Control Delay 15.4 MM 2000 Control Oscapity ratio 16.8 Calysis Period (min) 15	Satd. Flow (perm)	1770	1583	3441		1770	3539		
OR Reduction (vph) 0 110 17 0 0 0 0 0 0 end of the Group Flow (vph) 277 157 1460 0 1 1870 1870 1870 1870 1870 1870 1870	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92		
Type	Adj. Flow (vph)	277	267	1203	274	1	1870		
m Type	RTOR Reduction (vph)	0	110	17	0	0	0		
Stecked Phases 8	ane Group Flow (vph)	277	157	1460	0	1	1870		
Provided Phases 8	Turn Type	NA	Perm	NA		Prot	NA		
tuated Green, G (s) 18.6 18.6 58.6 0.8 63.4 ective Green, g (s) 18.6 18.6 58.6 0.8 63.4 tuated g/C Ratio 0.21 0.21 0.65 0.01 0.70 parance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 hicle Extension (s) 3.0 3.0 3.0 3.0 3.0 ne Grp Cap (vph) 365 327 2240 15 2493 Ratio Port c0.16 0.42 0.00 c0.53 Ratio Perm 0.10 Ratio Delay, d1 33.6 31.4 9.5 44.2 8.3 regression Factor 1.00 1.00 1.28 1.00 1.00 remental Delay, d2 8.8 1.1 1.2 1.9 2.1 lay (s) 42.4 32.5 13.4 46.1 10.5 proach LOS D B B B Persection Summary 2M 2000 Control Delay 15.4 HCM 2000 Level of Service B 2M 2000 Volume to Capacity ratio tuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 ersection Capacity Utilization 68.3% ICU Level of Service C 2dysis Period (min) 15	Protected Phases	8		2		1	6		
lective Green, g (s) 18.6 18.6 58.6 0.8 63.4 tuated g/C Ratio 0.21 0.21 0.65 0.01 0.70 sarance Time (s) 4.0 4.0 4.0 4.0 4.0 hicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 hicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 hicle Extension (s) 4.0 hicle Extension (s) 4.	Permitted Phases		8						
tuated g/C Ratio 0.21 0.21 0.65 0.01 0.70 sarance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 incle Extension (s) 3.0 3.0 3.0 3.0 3.0 ince Grp Cap (vph) 365 327 2240 15 2493 Ratio Prot 0.16 0.42 0.00 c0.53 Ratio Perm 0.10 Ratio 0.76 0.48 0.65 0.07 0.75 iform Delay, d1 33.6 31.4 9.5 44.2 8.3 ogression Factor 1.00 1.00 1.28 1.00 1.00 remental Delay, d2 8.8 1.1 1.2 1.9 2.1 lay (s) 42.4 32.5 13.4 46.1 10.5 vel of Service D C B D B proach Delay (s) 37.5 13.4 10.5 proach LOS D B B ersection Summary EM 2000 Control Delay 15.4 HCM 2000 Level of Service B MM 2000 Volume to Capacity ratio tuated Cycle Length (s) 9.0 Sum of lost time (s) 12.0 ersection Capacity Utilization 68.3% ICU Level of Service C claysis Period (min) 15	Actuated Green, G (s)	18.6	18.6	58.6		0.8	63.4		
Parance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 A.0 A.0 A.0 A.0 A.0 A.0 A.0 A.0 A.0 A	Effective Green, g (s)	18.6	18.6	58.6		0.8	63.4		
hicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 hickers (s) 4.0 15 2493 hickers (s) 4.2 15 2493 hickers (s) 4.2 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.2 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Actuated g/C Ratio	0.21	0.21	0.65		0.01	0.70		
ne Grp Cap (vph) 365 327 2240 15 2493 Ratio Prot c0.16 0.42 0.00 c0.53 Ratio Perm 0.10 Ratio 0.76 0.48 0.65 0.07 0.75 Ratio Perm 0.10 Ratio Pe	Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		
Ratio Prot c0.16 0.42 0.00 c0.53 Ratio Perm 0.10 Ratio Perm 0.10 Ratio Perm 0.10 Ratio 0.76 0.48 0.65 0.07 0.75 Ifform Delay, d1 33.6 31.4 9.5 44.2 8.3 Sugression Factor 1.00 1.00 1.28 1.00 1.00 remental Delay, d2 8.8 1.1 1.2 1.9 2.1 Iay (s) 42.4 32.5 13.4 46.1 10.5 vel of Service D C B D B proach Delay (s) 37.5 13.4 10.5 proach LOS D B B B B B B B B B B B B B B	/ehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		
Ratio Prot c0.16 0.42 0.00 c0.53 Ratio Perm 0.10 Ratio	ane Grp Cap (vph)	365	327	2240		15	2493		
Ratio	//s Ratio Prot			0.42		0.00			
iform Delay, d1 33.6 31.4 9.5 44.2 8.3 ogression Factor 1.00 1.00 1.28 1.00 1.00 remental Delay, d2 8.8 1.1 1.2 1.9 2.1 lay (s) 42.4 32.5 13.4 46.1 10.5 vel of Service D C B D B proach Delay (s) 37.5 13.4 10.5 proach LOS D B B ersection Summary M 2000 Control Delay 15.4 HCM 2000 Level of Service B M 2000 Volume to Capacity ratio tuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 ersection Capacity Utilization 68.3% ICU Level of Service C alysis Period (min) 15	//s Ratio Perm		0.10						
Degression Factor 1.00 1.00 1.28 1.00 1.00 1.00 1.28 1.00 1.00 1.28 1.00 1.00 1.28 1.00 1.00 1.28 1.00 1.00 1.28 1.00 1.00 1.28 1.00 1.00 1.28 1.00 1.00 1.28 1.00 1.00 1.28 1.00 1.00 1.28 1.00 1	//c Ratio	0.76	0.48	0.65		0.07	0.75		
pgression Factor 1.00 1.00 1.28 1.00 1.00 1.00 remental Delay, d2 8.8 1.1 1.2 1.9 2.1 lay (s) 42.4 32.5 13.4 46.1 10.5 vel of Service D C B D B D B proach Delay (s) 37.5 13.4 10.5 proach LOS D B B B B B B B B B B B B B B B B B B	Jniform Delay, d1	33.6	31.4	9.5		44.2	8.3		
remental Delay, d2 8.8 1.1 1.2 1.9 2.1 lay (s) 42.4 32.5 13.4 46.1 10.5 vel of Service D C B D B proach Delay (s) 37.5 13.4 10.5 proach LOS D B B ersection Summary EM 2000 Control Delay 15.4 HCM 2000 Level of Service B EM 2000 Volume to Capacity ratio 0.79 tuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 ersection Capacity Utilization 68.3% ICU Level of Service C alysis Period (min) 15	Progression Factor	1.00	1.00	1.28		1.00	1.00		
lay (s)	ncremental Delay, d2	8.8	1.1	1.2		1.9	2.1		
proach Delay (s) 37.5 13.4 10.5 proach LOS D B B ersection Summary EM 2000 Control Delay 15.4 HCM 2000 Level of Service B M4 2000 Volume to Capacity ratio 0.79 User of lost time (s) 12.0 usted Cycle Length (s) 90.0 Sum of lost time (s) 12.0 ersection Capacity Utilization 68.3% ICU Level of Service C alysis Period (min) 15	Delay (s)	42.4	32.5	13.4		46.1	10.5		
Proach LOS	_evel of Service	D	С	В		D	В		
### Presection Summary ### 2000 Control Delay	Approach Delay (s)	37.5		13.4			10.5		
XM 2000 Control Delay 15.4 HCM 2000 Level of Service B XM 2000 Volume to Capacity ratio 0.79 tuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 ersection Capacity Utilization 68.3% ICU Level of Service C alysis Period (min) 15 ICU Level of Service C	Approach LOS	D		В			В		
XM 2000 Control Delay 15.4 HCM 2000 Level of Service B XM 2000 Volume to Capacity ratio 0.79 tuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 ersection Capacity Utilization 68.3% ICU Level of Service C alysis Period (min) 15 ICU Level of Service C	ntersection Summary								
M 2000 Volume to Capacity ratio tuated Cycle Length (s) ersection Capacity Utilization description des	ICM 2000 Control Delay			15.4	Н	CM 2000	Level of Service	:	В
tuated Cycle Length (s) 90.0 Sum of lost time (s) 12.0 ersection Capacity Utilization 68.3% ICU Level of Service C alysis Period (min) 15		acity ratio							
ersection Capacity Utilization 68.3% ICU Level of Service C alysis Period (min) 15	Actuated Cycle Length (s)				S	um of los	t time (s)		2.0
alysis Period (min) 15		ation					(-)		
	Analysis Period (min)			15					

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Cumulative+PP AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	44		14	47		Jal.	44	ř*	1	41>	
Volume (vph)	166	83	166	535	230	360	150	683	255	168	768	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.90		1.00	0.91		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3185		1770	3215		1770	3539	1583	1770	3407	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3185		1770	3215		1770	3539	1583	1770	3407	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	90	180	582	250	391	163	742	277	183	835	278
RTOR Reduction (vph)	0	165	0	0	195	0	0	0	133	0	21	0
Lane Group Flow (vph)	180	105	0	582	446	0	163	742	144	183	1092	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	18.7	11.2		48.0	40.5		14.0	41.7	41.7	17.7	45.4	
Effective Green, g (s)	18.7	11.2		48.0	40.5		14.0	41.7	41.7	17.7	45.4	
Actuated g/C Ratio	0.14	0.08		0.35	0.30		0.10	0.30	0.30	0.13	0.33	
Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	241	260		619	949		180	1075	481	228	1127	
v/s Ratio Prot	0.10	0.03		c0.33	c0.14		c0.09	0.21		0.10	c0.32	
v/s Ratio Perm									0.09			
v/c Ratio	0.75	0.40		0.94	0.47		0.91	0.69	0.30	0.80	0.97	
Uniform Delay, d1	57.0	59.8		43.2	39.6		60.9	42.1	36.6	58.1	45.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	11.9	1.0		22.5	0.4		41.0	1.9	0.4	18.1	19.5	
Delay (s)	68.9	60.8		65.7	39.9		101.9	44.0	36.9	76.2	64.7	
Level of Service	Е	E		Е	D		F	D	D	Е	Е	
Approach Delay (s)		64.1			52.2			50.3			66.4	
Approach LOS		Е			D			D			Е	
Intersection Summary												
HCM 2000 Control Delay			57.4	Н	CM 2000	Level of	Service		Е			
HCM 2000 Volume to Capa	city ratio		0.91									
Actuated Cycle Length (s)			137.2	S	um of los	t time (s)			18.6			
Intersection Capacity Utiliza	ation		91.2%	10	CU Level	of Service)		F			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ď	4	71	Jal.	To-		14	10		1	4	#
Volume (vph)	143	175	449	140	82	12	822	436	75	52	352	471
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1827		1770	1822		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1827		1770	1822		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	155	190	488	152	89	13	893	474	82	57	383	512
RTOR Reduction (vph)	0	0	430	0	4	0	0	5	0	0	0	232
Lane Group Flow (vph)	155	190	58	152	98	0	893	551	0	57	383	280
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	11.0	15.4	15.4	11.0	15.4		64.0	80.9		7.0	23.9	23.9
Effective Green, g (s)	11.0	15.4	15.4	11.0	15.4		64.0	80.9		7.0	23.9	23.9
Actuated g/C Ratio	0.08	0.12	0.12	0.08	0.12		0.49	0.62		0.05	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	149	220	187	149	215		869	1131		95	341	290
v/s Ratio Prot	c0.09	c0.10		0.09	0.05		c0.50	0.30		0.03	c0.21	
v/s Ratio Perm			0.04									0.18
v/c Ratio	1.04	0.86	0.31	1.02	0.45		1.03	0.49		0.60	1.12	0.97
Uniform Delay, d1	59.7	56.4	52.6	59.7	53.5		33.2	13.4		60.3	53.2	52.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	84.8	27.7	0.9	79.1	1.5		37.8	0.3		9.8	86.3	43.1
Delay (s)	144.5	84.1	53.5	138.8	55.1		70.9	13.8		70.1	139.5	95.9
Level of Service	F	F	D	F	Е		Е	В		Е	F	F
Approach Delay (s)		77.4			105.2			49.0			111.9	
Approach LOS		Е			F			D			F	
Intersection Summary												
HCM 2000 Control Delay			77.1	Н	CM 2000	Level of	Service		E			
HCM 2000 Volume to Capa	acity ratio		1.03									
Actuated Cycle Length (s)			130.3	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		94.4%	IC	U Level	of Service	•		F			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 24: Silva Valley Pkwy. & Appian Way

Stop

0.92

WB 1

359

215

141

-0.08

7.9

0.78

449

33.9

33.9

103

0.92

112

NB 1

476

34

72

-0.04

7.4

0.98

476

64.0

64.0

62.4

67.9%

15

198

0.92

215

SB 1

516

48

29

0.02

1.09

485

94.9

94.9

7.6

43

0.92

47

EB 1

160

47

112

-0.33

8.6

0.38

388

16.9

16.9

С

Stop

0.92

2

2

ICU Level of Service

130

0.92

141

Lane Configurations

Sign Control

Volume (vph)

Peak Hour Factor

Direction, Lane #

Volume Total (vph)

Volume Left (vph)

Volume Right (vph)

Departure Headway (s)

Degree Utilization, x

Capacity (veh/h)

Control Delay (s)

Approach LOS

Delay Level of Service

Approach Delay (s)

Intersection Summary

Analysis Period (min)

Intersection Capacity Utilization

Hadj (s)

Hourly flow rate (vph)

Cumulative+PP AM Peak

1

Stop

0.92

27

0.92

29

44 404

48 439

0.92

4

66

72

0.92

Stop

0.92

31 341

0.92

34 371

Dixon Ranch
25: Site Dwy RIRO & Green Valley Rd.

(Cumulati	ve-	+PF
		ΔM	Peal

	→	\rightarrow	•	←	4	/	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1			ተ		₹"	Ī
Volume (veh/h)	377	39	0	930	0	21	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	410	42	0	1011	0	23	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)				796			
pX, platoon unblocked					0.59		
vC, conflicting volume			452		1442	431	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			452		1402	431	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		100	96	
cM capacity (veh/h)			1108		92	624	
Direction. Lane #	EB 1	WB 1	NB 1				
Volume Total	452	1011	23				_
			23				
Volume Left	0	0					
Volume Right	42	0	23				
cSH	1700	1700	624				
Volume to Capacity	0.27	0.59	0.04				
Queue Length 95th (ft)	0	0	3				
Control Delay (s)	0.0	0.0	11.0				
Lane LOS			В				
Approach Delay (s)	0.0	0.0	11.0				
Approach LOS			В				
Intersection Summary							
Average Delay			0.2				
Intersection Capacity Utiliza	ition		52.3%	IC	U Level	of Service	
Analysis Period (min)			15				

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c Critical Lane Group

Cumulative+PP PM Peak Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Se Sa	44	71	34	44	74	34.34	†1 3		1	4	7
Volume (vph)	485	999	353	195	671	98	348	264	19	123	227	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	3503		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3433	3503		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	527	1086	384	212	729	107	378	287	21	134	247	247
RTOR Reduction (vph)	0	0	247	0	0	75	0	6	0	0	0	200
Lane Group Flow (vph)	527	1086	137	212	729	32	378	302	0	134	247	47
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	14.0	28.8	28.8	11.0	25.8	25.8	11.8	21.0		7.0	16.2	16.2
Effective Green, g (s)	14.0	28.8	28.8	11.0	25.8	25.8	11.8	21.0		7.0	16.2	16.2
Actuated g/C Ratio	0.16	0.33	0.33	0.13	0.30	0.30	0.14	0.24		0.08	0.19	0.19
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7	5.7	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	558	1185	530	226	1061	474	471	855		144	350	298
v/s Ratio Prot	c0.15	c0.31		0.12	0.21		c0.11	0.09		0.08	c0.13	
v/s Ratio Perm			0.09			0.02						0.03
v/c Ratio	0.94	0.92	0.26	0.94	0.69	0.07	0.80	0.35		0.93	0.71	0.16
Uniform Delay, d1	35.6	27.4	20.8	37.2	26.5	21.5	36.0	26.9		39.3	32.7	29.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	24.9	11.0	0.3	42.5	1.9	0.1	9.5	0.3		54.3	6.4	0.2
Delay (s)	60.5	38.5	21.1	79.6	28.4	21.6	45.5	27.1		93.6	39.0	29.4
Level of Service	Е	D	С	Е	С	С	D	С		F	D	С
Approach Delay (s)		40.9			38.1			37.3			46.9	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			40.5	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capac	city ratio		0.87									
Actuated Cycle Length (s)			86.0	S	um of los	t time (s)			18.2			
Intersection Capacity Utilizat	tion		75.5%	IC	U Level	of Service	9		D			
Analysis Period (min)			15									
c Critical Lane Group												

	•	→	•	•	—	•	•	1	<i>></i>	-	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ď	To		Jal.	To-		,ht	10			4	#
Volume (vph)	138	1063	36	69	722	104	73	214	122	74	101	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (prot)	1770	1854		1770	1828		1770	1761			1824	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.98	1.00
Satd. Flow (perm)	1770	1854		1770	1828		1770	1761			1824	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	1155	39	75	785	113	79	233	133	80	110	142
RTOR Reduction (vph)	0	1	0	0	3	0	0	14	0	0	0	122
Lane Group Flow (vph)	150	1193	0	75	895	0	79	352	0	0	190	20
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	12.5	83.5		3.5	74.5		17.0	17.0			19.7	19.7
Effective Green, g (s)	12.5	83.5		3.5	74.5		17.0	17.0			19.7	19.7
Actuated g/C Ratio	0.09	0.59		0.02	0.52		0.12	0.12			0.14	0.14
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0			5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5			4.5	4.5
Lane Grp Cap (vph)	155	1084		43	954		210	209			251	218
v/s Ratio Prot	c0.08	c0.64		c0.04	0.49		0.04	c0.20			c0.10	
v/s Ratio Perm												0.01
v/c Ratio	0.97	1.10		1.74	0.94		0.38	1.68			0.76	0.09
Uniform Delay, d1	64.9	29.6		69.6	31.9		58.0	62.8			59.2	53.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	61.9	59.2		414.2	16.6		2.0	327.6			13.7	0.3
Delay (s)	126.8	88.8		483.8	48.5		59.9	390.5			72.9	54.0
Level of Service	F	F		F	D		Е	F			Е	D
Approach Delay (s)		93.1			82.1			331.8			64.8	
Approach LOS		F			F			F			Е	
Intersection Summary												
HCM 2000 Control Delay			120.9	Н	CM 2000	Level of S	Service		F			
HCM 2000 Volume to Capa	acity ratio		1.15									
Actuated Cycle Length (s)			142.7		um of los	. ,			19.0			
Intersection Capacity Utiliz	ation		106.3%	IC	U Level	of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

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Cumulative+PP

Dixon Ranch 4: Loch Way & Green Valley Rd

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Movement	EBL	EBT	EBR	₩BL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations	"	4	71)kj	14	WDIX	NO.	10	NDIX	ODL	4	ODI
Volume (vph)	10	952	382	118	554	6	349	20	197	2	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	5.7	4.0	5.7	1000	4.6	4.6	1000	1000	4.0	1000
ane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
-rt	1.00	1.00	0.85	1.00	1.00		1.00	0.86			0.97	
It Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1863	1583	1770	1860		1770	1609			1789	
It Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1770	1863	1583	1770	1860		1770	1609			1789	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	1035	415	128	602	7	379	22	214	2	10	4
RTOR Reduction (vph)	0	0	74	0	0	0	0	168	0	0	4	C
ane Group Flow (vph)	11	1035	341	128	609	0	379	68	0	0	12	C
Turn Type	Prot	NA	Perm	Prot	NA	-	Split	NA	-	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6									
Actuated Green, G (s)	1.5	76.9	76.9	7.0	82.4		28.5	28.5			2.7	
Effective Green, g (s)	1.5	76.9	76.9	7.0	82.4		28.5	28.5			2.7	
Actuated g/C Ratio	0.01	0.58	0.58	0.05	0.62		0.21	0.21			0.02	
Clearance Time (s)	4.0	5.7	5.7	4.0	5.7		4.6	4.6			4.0	
Vehicle Extension (s)	2.5	3.0	3.0	2.5	3.0		2.5	2.5			2.5	
ane Grp Cap (vph)	19	1073	912	92	1148		378	343			36	
//s Ratio Prot	0.01	c0.56		c0.07	0.33		c0.21	0.04			c0.01	
//s Ratio Perm			0.22									
/c Ratio	0.58	0.96	0.37	1.39	0.53		1.00	0.20			0.34	
Jniform Delay, d1	65.6	27.0	15.3	63.2	14.5		52.5	43.1			64.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
ncremental Delay, d2	30.5	19.3	0.3	229.5	0.5		47.0	0.2			4.0	
Delay (s)	96.2	46.3	15.5	292.7	15.0		99.4	43.3			68.5	
evel of Service	F	D	В	F	В		F	D			Е	
Approach Delay (s)		37.9			63.2			77.9			68.5	
Approach LOS		D			Е			Е			Е	
ntersection Summary												
HCM 2000 Control Delay			53.4	H	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.98									
Actuated Cycle Length (s)			133.4		um of los	. ,			18.3			
ntersection Capacity Utiliza	ition		94.6%	IC	U Level	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

	-	\rightarrow	•	←	1	1		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	1>			ৰ	1	ď		
Volume (veh/h)	1063	33	5	603	26	5		
Sign Control	Free			Free	Stop			
Grade	0%			0%	0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	1155	36	5	655	28	5		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None			None				
Median storage veh)								
Upstream signal (ft)								
pX, platoon unblocked								
vC, conflicting volume			1191		1840	1173		
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol			1191		1840	1173		
tC, single (s)			4.1		6.4	6.2		
tC, 2 stage (s)								
tF (s)			2.2		3.5	3.3		
p0 queue free %			99		66	98		
cM capacity (veh/h)			586		82	234		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2				
Volume Total	1191	661	28	5				
Volume Left	0	5	28	0				
Volume Right	36	0	0	5				
cSH	1700	586	82	234				
Volume to Capacity	0.70	0.01	0.34	0.02				
Queue Length 95th (ft)	0.70	1	33	0.02				
Control Delay (s)	0.0	0.3	70.3	20.8				
Lane LOS	0.0	0.5 A	70.5 F	20.0 C				
Approach Delay (s)	0.0	0.3	62.3	Ū				
Approach LOS	0.0	0.0	02.5 F					
Intersection Summary								
Intersection Summary Average Delay			1.2					
	tion		1.2 67.9%	IC	U Level	of Service	С	

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	D		44	
Volume (veh/h)	31	1069	606	12	8	19
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	1162	659	13	9	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	672				1895	665
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	672				1895	665
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				88	96
cM capacity (veh/h)	919				74	460
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	1196	672	29			
Volume Left	34	0	9			
Volume Right	0	13	21			
cSH	919	1700	180			
Volume to Capacity	0.04	0.40	0.16			
Queue Length 95th (ft)	3	0.40	14			
Control Delay (s)	1.3	0.0	28.8			
Lane LOS	1.5 A	0.0	20.0 D			
Approach Delay (s)	1.3	0.0	28.8			
Approach LOS	1.0	0.0	D			
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utiliz	ration		91.2%	IC	CU Level o	of Service
Analysis Period (min)	Lauon		15	IC	O LEVEL	JI JEI VICE
Analysis Period (IIIII)			10			

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	To.		gha		
Volume (veh/h)	15	1060	596	6	12	18	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	16	1152	648	7	13	20	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	654				1836	651	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	654				1836	651	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.3	
p0 queue free %	98				84	96	
cM capacity (veh/h)	933				82	468	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	1168	654	33				
Volume Left	16	0	13				
Volume Right	0	7	20				
cSH	933	1700	162				
Volume to Capacity	0.02	0.38	0.20				
Queue Length 95th (ft)	1	0	18				
Control Delay (s)	0.6	0.0	32.7				
Lane LOS	Α		D				
Approach Delay (s)	0.6	0.0	32.7				
Approach LOS			D				
Intersection Summary							
Average Delay			1.0				
Intersection Capacity Utilization	ation		77.8%	IC	CU Level	of Service	D
Analysis Period (min)			15				

6/17/2013 Synchro 8 - Report Kimley-Horn and Associates, Inc. Page 5

6/17/2013 Kimley-Horn and Associates, Inc.

Cumulative+PP PM Peak Dixon Ranch 8: Silver Springs Pkwy & Green Valley Rd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	35	T.		jh.	T.			4			4	
Volume (veh/h)	51	771	26	39	486	8	18	2	23	10	0	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	838	28	42	528	9	20	2	25	11	0	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	537			866			1599	1585	852	1592	1595	533
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	537			866			1599	1585	852	1592	1595	533
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			95			74	98	93	85	100	96
cM capacity (veh/h)	1031			777			75	97	359	73	96	547
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	55	866	42	537	47	34						
Volume Left	55	0	42	0	20	11						
Volume Right	0	28	0	9	25	23						
cSH	1031	1700	777	1700	133	176						
Volume to Capacity	0.05	0.51	0.05	0.32	0.35	0.19						
Queue Length 95th (ft)	4	0	4	0	36	17						
Control Delay (s)	8.7	0.0	9.9	0.0	46.1	30.2						
Lane LOS	Α		Α		Е	D						
Approach Delay (s)	0.5		0.7		46.1	30.2						
Approach LOS					Е	D						
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utiliza	ation		52.7%	IC	U Level	of Service			Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	1			4	Ala				
Volume (vph)	867	121	29	522	91	17			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0			4.0	4.0				
Lane Util. Factor	1.00			1.00	1.00				
Frt	0.98			1.00	0.98				
Flt Protected	1.00			1.00	0.96				
Satd. Flow (prot)	1832			1858	1750				
Flt Permitted	1.00			0.83	0.96				
Satd. Flow (perm)	1832			1554	1750				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	942	132	32	567	99	18			
RTOR Reduction (vph)	7	0	0	0	13	0			
Lane Group Flow (vph)	1067	0	0	599	104	0			
Turn Type	NA		Perm	NA	NA				
Protected Phases	4			8	2				
Permitted Phases			8						
Actuated Green, G (s)	34.6			34.6	8.4				
Effective Green, g (s)	34.6			34.6	8.4				
Actuated g/C Ratio	0.68			0.68	0.16				
Clearance Time (s)	4.0			4.0	4.0				
Vehicle Extension (s)	3.0			3.0	3.0				
Lane Grp Cap (vph)	1242			1054	288				
v/s Ratio Prot	c0.58				c0.06				
v/s Ratio Perm				0.39					
v/c Ratio	0.86			0.57	0.36				
Uniform Delay, d1	6.3			4.3	18.9				
Progression Factor	1.00			1.00	1.00				
Incremental Delay, d2	6.1			0.7	0.8				
Delay (s)	12.5			5.0	19.7				
Level of Service	В			Α	В				
Approach Delay (s)	12.5			5.0	19.7				
Approach LOS	В			Α	В				
Intersection Summary									
HCM 2000 Control Delay			10.4	Н	CM 2000	Level of Service	е	В	
HCM 2000 Volume to Capa	acity ratio		0.76						
Actuated Cycle Length (s)			51.0	S	um of lost	t time (s)		8.0	
Intersection Capacity Utiliz	ation		65.7%	IC	CU Level	of Service		С	
Analysis Period (min)			15						
c Critical Lane Group									

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6/17/2013 Kimley-Horn and Associates, Inc.

Cumulative+PP PM Peak Dixon Ranch
10: Cambridge Rd. & Green Valley Rd.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J,	To		Jal.	14			4	i"		4	
Volume (vph)	3	672	131	124	405	9	87	9	253	22	9	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Satd. Flow (prot)	1770	1817		1770	1857			1782	1583		1738	
Flt Permitted	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Satd. Flow (perm)	1770	1817		1770	1857			1782	1583		1738	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	730	142	135	440	10	95	10	275	24	10	17
RTOR Reduction (vph)	0	6	0	0	1	0	0	0	242	0	16	0
Lane Group Flow (vph)	3	866	0	135	449	0	0	105	33	0	35	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	0.7	47.9		8.1	55.3			10.4	10.4		4.7	
Effective Green, g (s)	0.7	47.9		8.1	55.3			10.4	10.4		4.7	
Actuated g/C Ratio	0.01	0.55		0.09	0.63			0.12	0.12		0.05	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	14	999		164	1179			212	189		93	
v/s Ratio Prot	0.00	c0.48		c0.08	0.24			c0.06			c0.02	
v/s Ratio Perm									0.02			
v/c Ratio	0.21	0.87		0.82	0.38			0.50	0.17		0.38	
Uniform Delay, d1	42.9	16.9		38.8	7.7			35.9	34.5		39.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	7.6	8.0		27.1	0.2			1.8	0.4		2.5	
Delay (s)	50.5	24.9		65.9	7.9			37.7	34.9		42.3	
Level of Service	D	С		Е	Α			D	С		D	
Approach Delay (s)		25.0			21.3			35.7			42.3	
Approach LOS		С			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			26.5	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capaci	ty ratio		0.77									
Actuated Cycle Length (s)			87.1	S	um of lost	time (s)			16.0			
Intersection Capacity Utilization	on		72.3%	IC	CU Level	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBI Lane Configurations T
Volume (vph) 31 772 190 49 400 9 121 5 79 8 5 14 Ideal Flow (vphpl) 1900
Volume (vph) 31 772 190 49 400 9 121 5 79 8 5 1- Ideal Flow (vphpl) 1900
Total Lost time (s) 4.0
Lane Util. Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.86 0.93 Flt Protected 0.95 1.00 0.95 1.00 0.95 1.00 0.98 Satd. Flow (prot) 1770 1807 1770 1856 1770 1599 1706 Flt Permitted 0.95 1.00 0.95 1.00 0.98
Frt 1.00 0.97 1.00 1.00 1.00 0.86 0.93 Flt Protected 0.95 1.00 0.95 1.00 0.95 1.00 0.98 Satd. Flow (prot) 1770 1807 1770 1856 1770 1599 1706 Flt Permitted 0.95 1.00 0.95 1.00 0.95 1.00
Fit Protected 0.95 1.00 0.95 1.00 0.95 1.00 0.98 Satd. Flow (prot) 1770 1807 1770 1856 1770 1599 1706 Flt Permitted 0.95 1.00 0.95 1.00 0.95 1.00
Satd. Flow (prot) 1770 1807 1770 1856 1770 1599 1706 Flt Permitted 0.95 1.00 0.95 1.00 0.95 1.00 0.98
Flt Permitted 0.95 1.00 0.95 1.00 0.95 0.95 0.98
Satd Flow (norm) 1770 1807 1770 1856 1770 1509 1706
Odia, Flow (point) 1770 1007 1770 1000 1770 1000 1770
Peak-hour factor, PHF 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
Adj. Flow (vph) 34 839 207 53 435 10 132 5 86 9 5 19
RTOR Reduction (vph) 0 6 0 0 1 0 0 75 0 0 14
Lane Group Flow (vph) 34 1040 0 53 444 0 132 16 0 0 15
Turn Type Prot NA Prot NA Split NA Split NA
Protected Phases 7 4 3 8 2 2 6 6
Permitted Phases
Actuated Green, G (s) 3.3 59.8 3.1 59.6 11.9 1.9 4.0
Effective Green, g (s) 3.3 59.8 3.1 59.6 11.9 1.9 4.0
Actuated g/C Ratio 0.03 0.63 0.03 0.63 0.13 0.13 0.04
Clearance Time (s) 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0
Lane Grp Cap (vph) 61 1139 57 1166 222 200 71
v/s Ratio Prot 0.02 c0.58 c0.03 0.24 c0.07 0.01 c0.01
v/s Ratio Perm
v/c Ratio 0.56 0.91 0.93 0.38 0.59 0.08 0.21
Uniform Delay, d1 45.0 15.2 45.7 8.6 39.2 36.6 43.9
Progression Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Incremental Delay, d2 10.6 11.1 92.7 0.2 4.2 0.2 1.4
Delay (s) 55.6 26.3 138.4 8.8 43.4 36.8 45.3
Level of Service E C F A D D D
Approach Delay (s) 27.2 22.6 40.7 45.3
Approach LOS C C D D
Intersection Summary
HCM 2000 Control Delay 27.9 HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio 0.83
Actuated Cycle Length (s) 94.8 Sum of lost time (s) 16.0
Intersection Capacity Utilization 72.2% ICU Level of Service C
Analysis Period (min) 15
c Critical Lane Group

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6/17/2013 Kimley-Horn and Associates, Inc.

Cumulative+PP

11: Cameron Park Dr. & Green Valley Rd.

PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J,	T.		Jal.	To-		14	10		19	1	
Volume (vph)	108	359	332	91	174	18	277	137	159	32	89	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.93		1.00	0.99		1.00	0.92		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1728		1770	1836		1770	1713		1770	1813	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1728		1770	1836		1770	1713		1770	1813	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	390	361	99	189	20	301	149	173	35	97	21
RTOR Reduction (vph)	0	34	0	0	4	0	0	49	0	0	10	0
Lane Group Flow (vph)	117	717	0	99	205	0	301	273	0	35	108	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	8.4	36.3		6.0	33.9		15.1	22.0		2.9	9.8	
Effective Green, g (s)	8.4	36.3		6.0	33.9		15.1	22.0		2.9	9.8	
Actuated g/C Ratio	0.10	0.44		0.07	0.41		0.18	0.26		0.03	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	178	753		127	748		321	452		61	213	
v/s Ratio Prot	c0.07	c0.41		0.06	0.11		c0.17	c0.16		0.02	0.06	
v/s Ratio Perm												
v/c Ratio	0.66	0.95		0.78	0.27		0.94	0.60		0.57	0.51	
Uniform Delay, d1	36.0	22.6		37.9	16.4		33.6	26.8		39.5	34.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.5	21.7		25.4	0.2		33.9	2.3		12.4	1.9	
Delay (s)	44.5	44.3		63.4	16.6		67.5	29.1		51.9	36.3	
Level of Service	D	D		Е	В		Е	С		D	D	
Approach Delay (s)		44.3			31.7			47.6			39.9	
Approach LOS		D			С			D			D	
Intersection Summary												
HCM 2000 Control Delay			43.0	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.91									
Actuated Cycle Length (s)			83.2	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		78.8%	IC	U Level	of Service)		D			
Analysis Period (min)			15									
c Critical Lane Group												

Synchro 8 - Report Page 11

Dixon Ranch 12: El Dorado Hills Blvd. & Francisco Dr. Cumulative+PP PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	71		4		jąć	10		18	1	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	41	497	28	36	43	535	401	24	9	220	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	540	30	39	47	582	436	26	10	239	2
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	45	540	116	582	462	10	241					
Volume Left (vph)	0	0	30	582	0	10	0					
Volume Right (vph)	0	540	47	0	26	0	2					
Hadj (s)	0.03	-0.57	-0.15	0.53	-0.01	0.53	0.03					
Departure Headway (s)	6.6	3.2	6.2	5.9	5.4	6.9	6.4					
Degree Utilization, x	0.08	0.48	0.20	0.95	0.69	0.02	0.43					
Capacity (veh/h)	512	1116	557	603	657	504	550					
Control Delay (s)	10.2	9.1	10.8	48.7	18.1	8.8	12.9					
Approach Delay (s)	9.2		10.8	35.2		12.7						
Approach LOS	Α		В	Е		В						
Intersection Summary												
Delay			23.3									
Level of Service			С									
Intersection Capacity Utilizat	ion		64.1%	IC	U Level	of Service			С			
Analysis Period (min)			15									

6/17/2013

Kimley-Horn and Associates, Inc.

Cumulative+PP PM Peak Dixon Ranch 14: El Dorado Hills Blvd. & Serrano Pkwy.

	•	•	†	/	\	↓			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	ň	7"	44	7"	14.4	十 十			
Volume (vph)	178	156	969	232	189	603			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	0.95	1.00	0.97	0.95			
Frt	1.00	0.85	1.00	0.85	1.00	1.00			
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00			
Satd. Flow (prot)	1770	1583	3539	1583	3433	3539			
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00			
Satd. Flow (perm)	1770	1583	3539	1583	3433	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Adj. Flow (vph)	193	170	1053	252	205	655			
RTOR Reduction (vph)	0	138	0	144	0	0			
Lane Group Flow (vph)	193	32	1053	108	205	655			
Turn Type	NA	Perm	NA	Perm	Prot	NA			
Protected Phases	8		2		1	6			
Permitted Phases		8		2					
Actuated Green, G (s)	7.6	7.6	17.4	17.4	3.5	24.9			
Effective Green, g (s)	7.6	7.6	17.4	17.4	3.5	24.9			
Actuated g/C Ratio	0.19	0.19	0.43	0.43	0.09	0.61			
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	332	297	1520	680	296	2175			_
v/s Ratio Prot	c0.11		c0.30		c0.06	0.19			
v/s Ratio Perm		0.02		0.07					
v/c Ratio	0.58	0.11	0.69	0.16	0.69	0.30			
Uniform Delay, d1	15.0	13.6	9.4	7.1	18.0	3.7			
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	2.6	0.2	1.4	0.1	6.8	0.1			
Delay (s)	17.6	13.8	10.8	7.2	24.8	3.8			
Level of Service	В	В	В	Α	С	Α			
Approach Delay (s)	15.8		10.1			8.8			
Approach LOS	В		В			Α			
Intersection Summary									
HCM 2000 Control Delay			10.5	Н	CM 2000	Level of Service	9	В	_
HCM 2000 Volume to Capa	acity ratio		0.66						
Actuated Cycle Length (s)	.,		40.5	S	um of los	t time (s)		12.0	
Intersection Capacity Utilization	ation		52.0%			of Service		A	
Analysis Period (min)			15						
c Critical Lane Group									

	•	_	•	•		-	``	ı	-	_	•	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	14		Jal.	4		jąć.	44	74	16	A D	
Volume (vph)	35	27	112	346	51	34	120	1612	720	38	1338	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	5.2	4.0	3.0	5.2	
Lane Util. Factor	1.00	1.00		0.95	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.88		1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1637		1681	1677		1770	3539	1583	1770	3518	
Flt Permitted	0.95	1.00		0.95	0.97		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1637		1681	1677		1770	3539	1583	1770	3518	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	29	122	376	55	37	130	1752	783	41	1454	61
RTOR Reduction (vph)	0	116	0	0	6	0	0	0	0	0	2	0
Lane Group Flow (vph)	38	35	0	233	229	0	130	1752	783	41	1513	0
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	. 7	7		. 8	8		5	2		1	6	
Permitted Phases									Free			
Actuated Green, G (s)	5.6	5.6		19.4	19.4		15.6	76.1	120.0	4.7	65.2	
Effective Green, g (s)	5.6	5.6		19.4	19.4		15.6	76.1	120.0	4.7	65.2	
Actuated g/C Ratio	0.05	0.05		0.16	0.16		0.13	0.63	1.00	0.04	0.54	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	5.2		3.0	5.2	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	82	76		271	271		230	2244	1583	69	1911	
v/s Ratio Prot	0.02	0.02		c0.14	0.14		0.07	c0.50		0.02	c0.43	
v/s Ratio Perm									c0.49			
v/c Ratio	0.46	0.46		0.86	0.85		0.57	0.78	0.49	0.59	0.79	
Uniform Delay, d1	55.7	55.7		49.0	48.8		49.0	15.9	0.0	56.7	22.0	
Progression Factor	1.00	1.00		1.00	1.00		0.65	0.22	1.00	1.00	1.00	
Incremental Delay, d2	1.5	1.6		22.0	20.1		1.2	1.7	0.7	8.8	3.5	
Delay (s)	57.2	57.3		71.0	68.9		33.3	5.3	0.7	65.5	25.4	
Level of Service	Е	Е		Е	Е		С	Α	Α	Е	С	
Approach Delay (s)		57.3			70.0			5.3			26.5	
Approach LOS		Е			Е			Α			С	
Intersection Summary												
HCM 2000 Control Delay			20.3	Н	CM 2000	Level of S	Service		С			
HCM 2000 Volume to Capa	acity ratio		0.80									
Actuated Cycle Length (s)			120.0		um of los				14.2			
Intersection Capacity Utiliza	ation		82.5%	IC	U Level	of Service			Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Cumulative+PP PM Peak Dixon Ranch
16: El Dorado Hills Blvd. & Saratoga Wy. (South)

Cumulative+PP PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	J.	ৰ্	71'	Jal.	7.		,te	ተተጉ		Ja.	41>	
Volume (vph)	86	27	210	53	22	377	295	1990	101	173	1561	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.91		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.86		1.00	0.99		1.00	0.99	
Flt Protected	0.95	0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1681	1724	1583	1770	1599		1770	5048		1770	3519	
Flt Permitted	0.95	0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1681	1724	1583	1770	1599		1770	5048		1770	3519	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	29	228	58	24	410	321	2163	110	188	1697	67
RTOR Reduction (vph)	0	0	214	0	217	0	0	3	0	0	2	0
Lane Group Flow (vph)	60	62	14	58	217	0	321	2270	0	188	1762	0
Turn Type	Split	NA	Prot	Split	NA	-	Prot	NA	-	Prot	NA	-
Protected Phases	7	7	7	8	8		1	6		5	2	
Permitted Phases	•	•	•	Ū	Ū			Ū			_	
Actuated Green, G (s)	7.6	7.6	7.6	18.6	18.6		12.0	66.1		10.0	64.1	
Effective Green, g (s)	7.6	7.6	7.6	18.6	18.6		12.0	67.8		10.0	65.8	
Actuated g/C Ratio	0.06	0.06	0.06	0.16	0.16		0.10	0.56		0.08	0.55	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.7		4.0	5.7	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	4.2		0.2	4.2	
Lane Grp Cap (vph)	106	109	100	274	247		177	2852		147	1929	
v/s Ratio Prot	0.04	c0.04	0.01	0.03	c0.14		c0.18	0.45		0.11	c0.50	
v/s Ratio Perm	0.01	00.01	0.01	0.00	00.11		00.10	0.10		0	00.00	
v/c Ratio	0.57	0.57	0.14	0.21	0.88		1.81	0.80		1.28	0.91	
Uniform Delay, d1	54.6	54.6	53.1	44.3	49.6		54.0	20.6		55.0	24.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.91	0.26		0.77	0.56	
Incremental Delay, d2	4.1	4.0	0.2	0.1	26.9		375.4	1.0		154.9	5.6	
Delay (s)	58.7	58.6	53.4	44.4	76.5		424.6	6.4		197.1	19.4	
Level of Service	E	E	D	D	Е		F	Α		F	В	
Approach Delay (s)		55.2			72.7			58.2			36.5	
Approach LOS		E			E			E			D	
••												
Intersection Summary			54.5		011 0000	Laurel of	0					
HCM 2000 Control Delay	alternativ		51.5	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	city ratio		0.99	_		L 41 (-)			10.0			
Actuated Cycle Length (s)	e		120.0		um of los				16.0			
Intersection Capacity Utiliza	ition		103.4%	10	CU Level	of Service	9		G			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3/2	4	74	jąį,	4	74	34 34	441		14	444	7
Volume (vph)	223	73	302	221	161	95	1077	2068	298	56	1320	448
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	0.97	0.91		1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1726	1583	1681	1755	1583	3433	4989		1770	5085	1583
Flt Permitted	0.95	0.98	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1681	1726	1583	1681	1755	1583	3433	4989		1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	242	79	328	240	175	103	1171	2248	324	61	1435	487
RTOR Reduction (vph)	0	0	0	0	0	87	0	14	0	0	0	0
Lane Group Flow (vph)	160	161	328	204	211	16	1171	2558	0	61	1435	487
Turn Type	Split	NA	Free	Split	NA	Perm	Prot	NA		Prot	NA	Free
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			Free			8						Free
Actuated Green, G (s)	14.7	14.7	120.0	19.1	19.1	19.1	40.8	65.0		5.2	29.4	120.0
Effective Green, g (s)	14.7	14.7	120.0	19.1	19.1	19.1	40.8	65.0		5.2	29.4	120.0
Actuated g/C Ratio	0.12	0.12	1.00	0.16	0.16	0.16	0.34	0.54		0.04	0.24	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		2.2	2.2	2.2	3.0	3.5		2.0	2.5	
Lane Grp Cap (vph)	205	211	1583	267	279	251	1167	2702		76	1245	1583
v/s Ratio Prot	c0.10	0.09		c0.12	0.12		c0.34	0.51		0.03	c0.28	
v/s Ratio Perm			0.21			0.01						0.31
v/c Ratio	0.78	0.76	0.21	0.76	0.76	0.07	1.00	0.95		0.80	1.15	0.31
Uniform Delay, d1	51.1	51.0	0.0	48.3	48.2	42.9	39.6	25.9		56.9	45.3	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.46		0.85	0.76	1.00
Incremental Delay, d2	17.3	15.0	0.3	11.3	10.2	0.1	16.7	3.7		24.1	73.7	0.3
Delay (s)	68.4	66.0	0.3	59.6	58.4	42.9	44.4	15.5		72.3	108.4	0.3
Level of Service	E	Е	Α	Е	Е	D	D	В		Е	F	Α
Approach Delay (s)		33.4			55.8			24.5			80.7	
Approach LOS		С			Е			С			F	
Intersection Summary												
HCM 2000 Control Delay			43.9	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	acity ratio		0.97									
Actuated Cycle Length (s)	•		120.0	S	um of los	t time (s)			16.0			
Intersection Capacity Utiliza	ation		88.0%	IC	U Level	of Service)		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			14.54			7*		ተተተ	i"	7	1111	
Volume (vph)	0	0	1718	0	0	1108	0	2335	619	674	1139	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1867	0	0	1204	0	2538	673	733	1238	0
RTOR Reduction (vph)	0	0	17	0	0	0	0	0	62	0	0	0
Lane Group Flow (vph)	0	0	1850	0	0	1204	0	2538	611	733	1238	0
Turn Type			custom			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases			1			Free			2			
Actuated Green, G (s)			94.7			120.0		59.0	59.0	53.0	70.3	
Effective Green, g (s)			94.7			120.0		59.0	59.0	53.0	70.3	
Actuated g/C Ratio			0.79			1.00		0.49	0.49	0.44	0.59	
Clearance Time (s)			4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			2292			1611		2500	778	781	3754	
v/s Ratio Prot			0.28					c0.50		c0.41	0.19	
v/s Ratio Perm			0.38			0.75			0.39			
v/c Ratio			0.81			0.75		1.02	0.79	0.94	0.33	
Uniform Delay, d1			7.3			0.0		30.5	25.3	31.9	12.8	
Progression Factor			1.00			1.00		1.00	1.00	0.43	0.45	
Incremental Delay, d2			2.2			3.2		21.9	7.8	8.9	0.1	
Delay (s)			9.5			3.2		52.4	33.1	22.7	5.8	
Level of Service			Α			Α		D	С	С	Α	
Approach Delay (s)		9.5			3.2			48.3			12.1	
Approach LOS		Α			Α			D			В	
Intersection Summary												
HCM 2000 Control Delay			24.3	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacity r	atio		0.98									
Actuated Cycle Length (s)			120.0	S	um of los	t time (s)			8.0			
Intersection Capacity Utilization			89.1%			of Service)		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3,1	4	54,				34 34	44			44	7
Volume (vph)	624	0	201	0	0	0	1024	1235	0	0	1413	866
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.91	0.95				0.97	0.95			0.95	1.00
Frt	1.00	0.99	0.85				1.00	1.00			1.00	0.85
Flt Protected	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1604	1504				3433	3539			3539	1583
Flt Permitted	0.95	0.96	1.00				0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1604	1504				3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	678	0	218	0	0	0	1113	1342	0	0	1536	941
RTOR Reduction (vph)	0	41	160	0	0	0	0	0	0	0	0	246
Lane Group Flow (vph)	353	306	36	0	0	0	1113	1342	0	0	1536	695
Turn Type	Split	NA	Perm				Prot	NA			NA	Perm
Protected Phases	4	4					5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	20.0	20.0	20.0				33.0	82.0			45.0	45.0
Effective Green, g (s)	20.0	20.0	20.0				33.0	82.0			45.0	45.0
Actuated g/C Ratio	0.18	0.18	0.18				0.30	0.75			0.41	0.41
Clearance Time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	305	291	273				1029	2638			1447	647
v/s Ratio Prot	c0.21	0.19					c0.32	0.38			0.43	
v/s Ratio Perm			0.02									c0.44
v/c Ratio	1.16	1.05	0.13				1.08	0.51			1.06	1.07
Uniform Delay, d1	45.0	45.0	37.7				38.5	5.7			32.5	32.5
Progression Factor	1.00	1.00	1.00				1.00	1.00			1.38	1.77
Incremental Delay, d2	101.2	67.0	0.2				52.8	0.7			29.5	36.8
Delay (s)	146.2	112.0	37.9				91.3	6.4			74.3	94.3
Level of Service	F	F	D				F	Α			Е	F
Approach Delay (s)		109.3			0.0			44.9			81.9	
Approach LOS		F			Α			D			F	
Intersection Summary												
HCM 2000 Control Delay			70.5	Н	CM 2000	Level of	Service		Е			
HCM 2000 Volume to Capa	acity ratio		1.09									
Actuated Cycle Length (s)			110.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utiliz	ation		97.6%	IC	CU Level	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

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Cumulative+PP PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				Jal.	4	79"	140	44			44	7
Volume (vph)	0	0	0	998	0	608	468	1391	0	0	1201	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.91	0.95	1.00	0.95			0.95	1.00
Frt				1.00	0.97	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1583	1504	1770	3539			3539	1583
Flt Permitted				0.95	0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1583	1504	1770	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1085	0	661	509	1512	0	0	1305	446
RTOR Reduction (vph)	0	0	0	0	35	35	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	597	565	514	509	1512	0	0	1305	446
Turn Type				Split	NA	Perm	Prot	NA			NA	Free
Protected Phases				8	8		5	2			6	
Permitted Phases						8						Free
Actuated Green, G (s)				34.0	34.0	34.0	27.0	68.0			37.0	110.0
Effective Green, g (s)				34.0	34.0	34.0	27.0	68.0			37.0	110.0
Actuated g/C Ratio				0.31	0.31	0.31	0.25	0.62			0.34	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				519	489	464	434	2187			1190	1583
v/s Ratio Prot				0.36	c0.36		c0.29	0.43			c0.37	
v/s Ratio Perm						0.34						0.28
v/c Ratio				1.15	1.16	1.11	1.17	0.69			1.10	0.28
Uniform Delay, d1				38.0	38.0	38.0	41.5	14.0			36.5	0.0
Progression Factor				1.00	1.00	1.00	0.77	1.00			0.81	1.00
Incremental Delay, d2				88.0	91.3	74.8	93.9	1.3			54.0	0.3
Delay (s)				126.0	129.3	112.8	125.9	15.3			83.7	0.3
Level of Service				F	F	F	F	В			F	Α
Approach Delay (s)		0.0			123.0			43.2			62.5	
Approach LOS		Α			F			D			Е	
Intersection Summary												
HCM 2000 Control Delay			74.6	Н	CM 2000	Level of	Service		E			
HCM 2000 Volume to Capacit	y ratio		1.14									
Actuated Cycle Length (s)			110.0		um of los				12.0			
Intersection Capacity Utilization	on		102.9%	IC	CU Level	of Service	•		G			
Analysis Period (min)			15									
c Critical Lane Group												

•	•	ı		*	+	
WBL	WBR	NBT	NBR	SBL	SBT	
J.	PF.	41 2		16	+ +	
49	320	1589	410	0	1562	
1900	1900	1900	1900	1900	1900	
4.0	4.0	4.0			4.0	
1.00	1.00	0.95			0.95	
1.00	0.85	0.97			1.00	
0.95	1.00	1.00			1.00	
1770	1583	3430			3539	
0.95	1.00	1.00			1.00	
1770	1583	3430			3539	
0.92	0.92	0.92	0.92	0.92	0.92	
53	348	1727	446	0	1698	
0	69	16	0	0	0	
53	279	2157	0	0	1698	
NA	Perm	NA		Prot	NA	
8		2		1	6	
	8					
21.6	21.6	80.4			80.4	
21.6	21.6	80.4			80.4	
0.20	0.20	0.73			0.73	
4.0	4.0	4.0			4.0	
3.0	3.0	3.0			3.0	
347	310	2507			2586	
0.03		c0.63			0.48	
	c0.18					
0.15	0.90	0.86			0.66	
36.6	43.1	10.7			7.7	
1.00	1.00	1.21			1.00	
0.2	26.9	2.3			1.3	
36.8	70.0	15.4			9.0	
D	Е	В			Α	
65.6		15.4			9.0	
Е		В			Α	
		17.5	H	CM 2000	Level of S	Service B
y ratio		0.90				
		110.0	Sı	um of lost	time (s)	12.0
n		83.5%	IC	U Level o	of Service	E
		15				
	49 1900 1.00 1.00 0.95 1770 0.92 53 NA 8 21.6 0.20 4.0 0.3 347 0.03 36.6 1.00 0.2 36.8 D 65.6 E	1900 1900 1900 1900 1900 1900 1900 1900 1,00 1,00 1,00 1,00 1,770 1583 0,95 1,00 1,770 1583 0,92 0,92 53 348 0 69 53 2,79 NA Perm 8 8 21.6 21.6 21.6 21.6 21.6 21.6 21.6 21.6 21.6 21.6 20.0 0,20 4.0 4.0 4.0 4.0 3.0 3.0 3.0 347 310 0,03 1,00 1,00 0,2 26.9 36.6 43.1 1,00 1,00 0,2 26.9 36.8 70.0 D E 65.6 E	1	1	1	15

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Cumulative+PP PM Peak

Dixon Ranch 23: Harvard Way & Silva Valley Pkwy. Cumulative+PP

1900

4.0

1.00

1.00

1.00

1863

1.00

1863

0.92

392

392

NA Perm

20.9

0.31

4.0

3.0

0.21

0.69

20.8

1.00

3.4

24.3

С

С

0

1900

1.00

1.00

0.95

1770

0.95

1770

0.92

0

Prot

0.7 20.9

4.0

3.0

18 570

33.7

1.00

131.9

165.7

0.01

0.01

105

1900

4.0

1.00

0.85

1.00

1583

1.00

79 35

20.9

0.31

4.0

3.0

484

0.02

1.00

0.1

16.9

	۶	-	•	•	•	•	•	†	~	>	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	35	ት Ъ		Jac.	47-		jąć.	44	je.	18	†1>	
Volume (vph)	197	237	186	439	116	151	200	970	460	232	619	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.93		1.00	0.92		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3306		1770	3239		1770	3539	1583	1770	3449	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3306		1770	3239		1770	3539	1583	1770	3449	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	214	258	202	477	126	164	217	1054	500	252	673	137
		106		4//	120		217	1054	186			137
RTOR Reduction (vph)	0		0			0				0	12	0
Lane Group Flow (vph)	214	354	0	477	168	U	217	1054	314	252	798	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	20.6	19.1		36.0	34.5		19.5	42.5	42.5	19.0	42.0	
Effective Green, g (s)	20.6	19.1		36.0	34.5		19.5	42.5	42.5	19.0	42.0	
Actuated g/C Ratio	0.15	0.14		0.27	0.26		0.14	0.31	0.31	0.14	0.31	
Clearance Time (s)	4.0	5.3		4.0	5.3		4.0	5.3	5.3	4.0	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	269	467		471	826		255	1112	497	248	1071	
v/s Ratio Prot	0.12	c0.11		c0.27	0.05		0.12	c0.30		c0.14	0.23	
v/s Ratio Perm									0.20			
v/c Ratio	0.80	0.76		1.01	0.20		0.85	0.95	0.63	1.02	0.75	
Uniform Delay, d1	55.3	55.8		49.6	39.6		56.4	45.3	39.6	58.1	41.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	14.9	7.0		44.7	0.1		22.8	15.9	2.6	61.4	2.9	
Delay (s)	70.2	62.8		94.3	39.7		79.3	61.1	42.2	119.5	44.7	
Level of Service	70.2 F	02.0 E		54.5 F	33.7 D		7 9.5 E	F	42.2 D	113.5	44.7 D	
Approach Delay (s)		65.1		г	73.6			58.0	U	Г	62.4	
		03.1 E			73.0 E			50.0 E			02.4 E	
Approach LOS												
Intersection Summary												
HCM 2000 Control Delay			63.0	H	CM 2000	Level of	Service		Е			
HCM 2000 Volume to Cap	acity ratio		0.95									
Actuated Cycle Length (s)	•		135.2	Sı	um of los	t time (s)			18.6			
Intersection Capacity Utiliz	zation		92.0%	IC	U Level	of Service	9		F			
Analysis Period (min)			15									
c Critical Lane Group												
ii Lanc Group												

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Dixon Ranch 24: Silva Valley Pkwy. & Appian Way Cumulative+PP PM Peak Dixon Ranch 25: Site Dwy RIRO & Green Valley Rd.

Cum	ulati	ive-	+PF
		PМ	Paa

	•	→	*	•	+	•	1	†	*	/	Ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	5	48	82	2	83	111	489	141	115	325	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	5	52	89	2	90	121	532	153	125	353	45
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	80	182	805	523								
Volume Left (vph)	23	89	121	125								
Volume Right (vph)	52	90	153	45								
Hadj (s)	-0.30	-0.17	-0.05	0.03								
Departure Headway (s)	7.4	7.0	5.8	5.9								
Degree Utilization, x	0.16	0.35	1.29	0.86								
Capacity (veh/h)	452	482	624	598								
Control Delay (s)	11.8	13.8	160.9	34.8								
Approach Delay (s)	11.8	13.8	160.9	34.8								
Approach LOS	В	В	F	D								
Intersection Summary												
Delay			95.1									
Level of Service			F									
Intersection Capacity Utiliza	ition		70.9%	IC	U Level	of Service			С			
Analysis Period (min)			15									

	-	\rightarrow	•	←	1	~
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			4		7*
Volume (veh/h)	924	117	0	623	0	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1004	127	0	677	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				836		
pX, platoon unblocked					0.85	
vC, conflicting volume			1132		1745	1068
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1132		1787	1068
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	94
cM capacity (veh/h)			617		76	269
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	1132	677	15			
Volume Left	0	0	0			
Volume Right	127	0	15			
cSH	1700	1700	269			
Volume to Capacity	0.67	0.40	0.06			
Queue Length 95th (ft)	0	0	4			
Control Delay (s)	0.0	0.0	19.2			
Lane LOS			С			
Approach Delay (s)	0.0	0.0	19.2			
Approach LOS			С			
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utili	zation		65.7%	IC	:III evel	of Service
Analysis Period (min)	Lation		15	ic	C LOVEI	OI OCIVICE
Alialysis Fellou (IIIII)			10			

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c Critical Lane Group

Dixon Ranch
2: El Dorado Hills Blvd. & Green Valley Rd.

Cumulative+PP AM Peak

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	۶	→	•	←	4	†	ţ	4	
	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR	
	35	434	132	1279	51	140	519	236	
	0.62	0.55	0.76	1.36	0.27	0.70	1.23	0.49	
	112.2	33.6	89.5	198.7	62.5	73.2	168.4	19.8	
	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	
	112.2	33.6	89.5	198.9	62.5	73.2	168.4	19.8	
	33	306	122	~1615	44	114	~614	59	
	#93	417	#210	#1885	89	190	#841	146	
		1935		786		1468	502		
	85		105		165				
	56	801	196	941	212	225	421	486	
	0	0	0	38	0	0	0	0	
	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	

0.67 1.42 0.24 0.62 1.23 0.49

Reduced v/c Ratio Intersection Summary

Lane Group
Lane Group Flow (vph)
v/c Ratio
Control Delay
Queue Delay
Total Delay
Queue Length 50th (ft)
Queue Length 95th (ft)
Internal Link Dist (ft)
Turn Bay Length (ft)
Base Capacity (vph)
Starvation Cap Reductn
Stillback Cap Reductn
Storage Cap Reductn

Queue shown is maximum after two cycles.

Dixon Ranch
3: Silva Valley Pkwy. & Green Valley Rd.

Cumulative+PP AM Peak

	•	→	\rightarrow	•	←	1	†	ţ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	
Lane Group Flow (vph)	3	358	282	207	962	504	177	65	
v/c Ratio	0.05	0.57	0.40	0.88	1.05	0.87	0.30	0.49	
Control Delay	66.7	39.7	6.7	90.8	77.8	57.9	28.2	68.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	66.7	39.7	6.7	90.8	77.8	57.9	28.2	68.3	
Queue Length 50th (ft)	3	250	12	173	~888	395	86	51	
Queue Length 95th (ft)	14	367	78	#357	#1314	#678	166	105	
Internal Link Dist (ft)		786			894		862	349	
Turn Bay Length (ft)	205		205	350		150			
Base Capacity (vph)	55	729	778	235	913	589	595	316	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.05	0.49	0.36	0.88	1.05	0.86	0.30	0.21	

Intersection Summary

Queue shown is maximum after two cycles.

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Dixon Ranch 18: Latrobe Rd. & US-50 EB Ramp Cumulative+PP AM Peak Dixon Ranch 19: Silva Valley Pkwy & EB US-50 Ramps Cumulative+PP AM Peak

	•	•	†	1	-	Ţ
Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1746	518	1846	266	787	2049
v/c Ratio	0.75	0.32	0.82	0.34	0.88	0.50
Control Delay	7.3	0.5	41.4	16.1	18.3	6.4
Queue Delay	0.0	0.0	0.0	0.0	1.5	0.0
Total Delay	7.3	0.5	41.4	16.1	19.8	6.4
Queue Length 50th (ft)	286	0	591	85	182	106
Queue Length 95th (ft)	266	0	689	165	m181	m106
Internal Link Dist (ft)			720			381
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	2338	1611	2249	772	967	4101
Starvation Cap Reductn	0	0	0	0	66	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.32	0.82	0.34	0.87	0.50
Intersection Summary						
m Volume for 95th perce	ntile queue i	is metere	d by upst	ream sig	nal.	

10. Oliva Valley I I				•			-
	•	\rightarrow	•	1	Ť	↓	4
Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	275	269	145	860	842	1496	674
v/c Ratio	0.92	0.80	0.38	0.98	0.32	0.98	0.71
Control Delay	74.2	46.9	8.9	60.6	4.6	23.1	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	18.9	2.4
Total Delay	74.2	46.9	8.9	60.6	4.6	41.9	7.4
Queue Length 50th (ft)	163	126	0	250	72	215	73
Queue Length 95th (ft)	#318	#267	52	#375	95	m174	m58
Internal Link Dist (ft)		797			881	399	
Turn Bay Length (ft)	400						
Base Capacity (vph)	298	335	386	877	2595	1533	943
Starvation Cap Reductn	0	0	0	0	0	102	155
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.80	0.38	0.98	0.32	1.05	0.86
Intersection Summary							
# 95th percentile volume	exceeds ca	pacity, qu	ieue may	be longe	r.		
Queue shown is maxim	um after two	cycles.	•				

m Volume for 95th percentile queue is metered by upstream signal.

Dixon Ranch 20: Silva Valley Pkwy & WB US-50 Ramps Cumulative+PP AM Peak

	•	←	•	4	†	↓	4
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	480	459	435	507	864	1408	740
v/c Ratio	1.17	1.08	0.84	1.12	0.37	1.09	0.47
Control Delay	133.0	98.1	33.5	110.4	4.3	73.1	0.7
Queue Delay	0.0	10.0	52.3	0.0	0.2	7.4	0.0
Total Delay	133.0	108.1	85.8	110.4	4.5	80.5	0.7
Queue Length 50th (ft)	~345	~293	137	~319	59	~482	0
Queue Length 95th (ft)	#543	#501	#314	m#479	m72	#605	0
Internal Link Dist (ft)		1051			399	84	
Turn Bay Length (ft)			360				
Base Capacity (vph)	410	424	518	452	2359	1297	1583
Starvation Cap Reductn	0	0	0	0	0	358	0
Spillback Cap Reductn	0	118	143	0	586	100	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.17	1.50	1.16	1.12	0.49	1.50	0.47

Intersection Summary

Dixon Ranch

Cumulative+PP

26: Site Dwy. Full/Site Dwy. & Green Valley Rd.

AM Peak

	→	•	←	†	/
Lane Group	EBT	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	432	25	778	233	47
v/c Ratio	0.45	0.06	0.80	0.60	0.10
Control Delay	7.9	5.8	16.0	22.5	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	5.8	16.0	22.5	6.1
Queue Length 50th (ft)	55	3	136	50	0
Queue Length 95th (ft)	119	12	291	125	19
Internal Link Dist (ft)	716		524	781	
Turn Bay Length (ft)		215			
Base Capacity (vph)	1354	629	1370	557	653
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.32	0.04	0.57	0.42	0.07
Intersection Summary					

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Dixon Ranch
2: El Dorado Hills Blvd. & Green Valley Rd.

Cumulative+PP PM Peak

Dixon Ranch 3: Silva Valley Pkwy. & Green Valley Rd. Cumulative+PP PM Peak

	•	-	•	•	←	4	†	ļ
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	11	1035	415	128	609	379	236	16
v/c Ratio	0.20	0.96	0.42	1.33	0.51	0.97	0.45	0.18
Control Delay	71.5	45.9	10.1	250.2	15.7	88.0	10.8	54.6
Queue Delay	0.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.5	65.5	10.1	250.2	15.7	88.0	10.8	54.6
Queue Length 50th (ft)	9	708	89	~130	206	300	14	9
Queue Length 95th (ft)	31	#1221	194	#286	443	#558	91	36
Internal Link Dist (ft)		786			894		862	349
Turn Bay Length (ft)	205		205	350		150		
Base Capacity (vph)	55	1079	990	96	1193	392	522	310
Starvation Cap Reductn	0	85	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	1.04	0.42	1.33	0.51	0.97	0.45	0.05

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lane Group EBL EBT WBL WBT NBL NBT SBT SBR Lane Group Flow (vph) 150 1194 75 898 79 366 190 142 v/c Ratio 0.97 1.10 1.74 0.94 0.38 1.64 0.76 0.42 Control Delay 128.7 88.7 455.0 50.1 64.4 342.6 78.6 12.0	-	∕ →	-	•	•	1	Ī	¥	4	
v/c Ratio 0.97 1.10 1.74 0.94 0.38 1.64 0.76 0.42	oup	EBL EB	. EBT	WBL	WBT	NBL	NBT	SBT	SBR	
	oup Flow (vph)	150 119	1194	75	898	79	366	190	142	
Control Delay 128.7 88.7 455.0 50.1 64.4 342.6 78.6 12.0)	0.97 1.1	1.10	1.74	0.94	0.38	1.64	0.76	0.42	
	Delay 1	128.7 88.	88.7	455.0	50.1	64.4	342.6	78.6	12.0	
Queue Delay 0.0 0.0 0.0 16.2 0.0 0.0 0.0 0.0	Delay	0.0 0.	0.0	0.0	16.2	0.0	0.0	0.0	0.0	
Total Delay 128.7 88.7 455.0 66.3 64.4 342.6 78.6 12.0	elay 1	128.7 88.	88.7	455.0	66.3	64.4	342.6	78.6	12.0	
Queue Length 50th (ft) 144 ~1289 ~105 780 70 ~489 172 0	ength 50th (ft)	144 ~128	~1289	~105	780	70	~489	172	0	
Queue Length 95th (ft)	ength 95th (ft) #	#291 #156	#1564	#215	#1094	126	#699	261	63	
Internal Link Dist (ft) 1935 786 1468 502	Link Dist (ft)	193	1935		786		1468	502		
Turn Bay Length (ft) 85 105 165	y Length (ft)	85	5	105		165				
Base Capacity (vph) 155 1085 43 957 210 223 281 364	pacity (vph)	155 108	1085	43	957	210	223	281	364	
Starvation Cap Reductn 0 0 0 80 0 0 0 0	on Cap Reductn	0) 0	0	80	0	0	0	0	
Spillback Cap Reductn 0 0 0 0 0 0 0	k Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn 0 0 0 0 0 0 0	Cap Reductn	0) 0	0	0	0	0	0	0	
Reduced v/c Ratio 0.97 1.10 1.74 1.02 0.38 1.64 0.68 0.39	d v/c Ratio	0.97 1.1	1.10	1.74	1.02	0.38	1.64	0.68	0.39	

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

Dixon Ranch 18: Latrobe Rd. & US-50 EB Ramp Cumulative+PP PM Peak

Dixon Ranch 19: Silva Valley Pkwy & EB US-50 Ramps Cumulative+PP PM Peak

	•	-	•	4	†	↓	1
Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	353	347	196	1113	1342	1536	941
v/c Ratio	1.16	1.05	0.45	1.08	0.51	1.06	1.05
Control Delay	142.2	99.9	9.2	90.2	6.5	72.3	57.0
Queue Delay	0.0	2.1	0.0	0.0	0.1	16.5	18.3
Total Delay	142.2	102.0	9.2	90.2	6.6	88.8	75.2
Queue Length 50th (ft)	~310	~258	0	~454	174	~617	~565
Queue Length 95th (ft)	#503	#461	65	#584	213	m476	m419
Internal Link Dist (ft)		797			881	399	
Turn Bay Length (ft)	400						
Base Capacity (vph)	305	332	433	1029	2638	1447	893
Starvation Cap Reductn	0	0	0	0	0	263	45
Spillback Cap Reductn	0	2	0	0	234	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	1.05	0.45	1.08	0.56	1.30	1.11

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

	•	•	†	/	>	ļ
Lane Group	EBR	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1867	1204	2538	673	733	1238
v/c Ratio	0.81	0.75	1.02	0.80	0.94	0.33
Control Delay	8.5	3.2	52.5	29.3	25.5	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	3.2	52.5	29.3	25.5	6.4
Queue Length 50th (ft)	165	0	~730	358	603	58
Queue Length 95th (ft)	221	0	#852	537	m579	m55
Internal Link Dist (ft)			720			392
Turn Bay Length (ft)				180	350	
Base Capacity (vph)	2471	1611	2500	840	781	3752
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.75	1.02	0.80	0.94	0.33

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Dixon Ranch 20: Silva Valley Pkwy & WB US-50 Ramps Cumulative+PP PM Peak

	•	←	•	4	†	↓	1
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	597	600	549	509	1512	1305	446
v/c Ratio	1.15	1.15	1.10	1.17	0.69	1.10	0.28
Control Delay	123.8	119.8	104.1	125.3	15.6	83.9	0.3
Queue Delay	4.2	11.5	11.8	0.0	0.6	2.5	0.0
Total Delay	128.0	131.3	115.9	125.3	16.2	86.4	0.3
Queue Length 50th (ft)	~523	~520	~437	~421	463	~553	0
Queue Length 95th (ft)	#750	#764	#663	m#540	m476	#692	0
Internal Link Dist (ft)		1051			399	84	
Turn Bay Length (ft)			360				
Base Capacity (vph)	519	523	499	434	2187	1190	1583
Starvation Cap Reductn	0	0	0	0	294	248	0
Spillback Cap Reductn	185	329	313	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.79	3.09	2.95	1.17	0.80	1.39	0.28

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.

 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Dixon Ranch 26: Site Dwy. Full/Site Dwy. & Green Valley Rd.

Cumulative+PP PM Peak

	-	•	←	†	1
Lane Group	EBT	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	1019	76	526	151	30
v/c Ratio	0.88	0.52	0.45	0.51	0.08
Control Delay	20.6	24.6	6.9	25.5	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	24.6	6.9	25.5	8.0
Queue Length 50th (ft)	202	10	66	45	0
Queue Length 95th (ft)	#570	#77	152	91	16
Internal Link Dist (ft)	756		524	781	
Turn Bay Length (ft)		215			
Base Capacity (vph)	1329	167	1349	454	530
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.46	0.39	0.33	0.06
Intersection Summary					

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Appendix I:

Analysis Worksheets for Mitigated Conditions Existing+PP MIT

AM Peak

	۶	→	\rightarrow	•	←	•	4	†	/	-	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	T.		Jal.	7.		Jac.	10		1	4	ř
Volume (vph)	23	302	17	157	805	53	36	63	60	108	229	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1848		1770	1845		1770	1726		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1848		1770	1845		1770	1726		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	328	18	171	875	58	39	68	65	117	249	173
RTOR Reduction (vph)	0	1	0	0	2	0	0	24	0	0	0	143
Lane Group Flow (vph)	25	345	0	171	931	0	39	109	0	117	249	30
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases												3
Actuated Green, G (s)	2.3	55.1		17.3	70.1		14.0	14.0		22.2	22.2	22.2
Effective Green, g (s)	2.3	55.1		17.3	70.1		14.0	14.0		22.2	22.2	22.2
Actuated g/C Ratio	0.02	0.43		0.14	0.55		0.11	0.11		0.17	0.17	0.17
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	31	798		239	1013		194	189		307	324	275
v/s Ratio Prot	0.01	0.19		c0.10	c0.50		0.02	c0.06		0.07	c0.13	
v/s Ratio Perm												0.02
v/c Ratio	0.81	0.43		0.72	0.92		0.20	0.58		0.38	0.77	0.11
Uniform Delay, d1	62.4	25.3		52.8	26.2		51.7	54.0		46.6	50.3	44.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	82.2	0.8		9.1	13.4		0.9	5.8		1.4	11.7	0.3
Delay (s)	144.6	26.1		61.9	39.6		52.6	59.8		48.0	61.9	44.7
Level of Service	F	С		Е	D		D	E		D	Е	D
Approach Delay (s)		34.1			43.1			58.2			53.4	
Approach LOS		С			D			Ε			D	
Intersection Summary												
HCM 2000 Control Delay			45.3	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capaci	ity ratio		0.85									
Actuated Cycle Length (s)			127.6	S	um of los	time (s)			19.0			
Intersection Capacity Utilizati	ion		80.5%	IC	CU Level	of Service			D			
Analysis Period (min)												
			15									

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Dixon Ranch 12: El Dorado Hills Blvd. & Francisco Dr. Existing+PP MIT

AM Peak

	۶	→	•	•	←	•	4	†	~	\	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ৰ	74		4		,tc	To-		16	D	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	49	453	45	63	42	361	150	37	125	345	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	53	492	49	68	46	392	163	40	136	375	3
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	55	492	163	392	203	136	378					
Volume Left (vph)	2	0	49	392	0	136	0					
Volume Right (vph)	0	492	46	0	40	0	3					
Hadj (s)	0.04	-0.57	-0.07	0.53	-0.10	0.53	0.03					
Departure Headway (s)	7.0	3.2	6.5	6.5	5.9	6.6	6.1					
Degree Utilization, x	0.11	0.44	0.29	0.71	0.33	0.25	0.64					
Capacity (veh/h)	438	1115	501	538	595	523	564					
Control Delay (s)	10.8	8.7	12.2	22.8	10.6	10.7	18.4					
Approach Delay (s)	8.9		12.2	18.6		16.3						
Approach LOS	Α		В	С		С						
Intersection Summary												
Delay			14.5									
Level of Service			В									
Intersection Capacity Utilization	on		64.8%	IC	U Level	of Service			С			
Analysis Period (min)			15									

Existing+PP MIT AM Peak

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd.

Z. Li Doiado i illio i	Diva. a	Orccii	vancy	i tu.								
	۶	→	•	•	←	•	4	†	/	/	↓	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	T.		Jel.	To-		34	10		1	4	7
Volume (vph)	114	864	24	93	523	81	55	153	163	55	70	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1855		1770	1825		1770	1719		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1855		1770	1825		1770	1719		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	124	939	26	101	568	88	60	166	177	60	76	102
RTOR Reduction (vph)	0	0	0	0	4	0	0	26	0	0	0	93
Lane Group Flow (vph)	124	965	0	101	652	0	60	317	0	60	76	9
Turn Type	Prot	NA	•	Prot	NA	-	Split	NA	-	Split	NA	Perm
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases		Ū			-			•			Ū	3
Actuated Green, G (s)	12.9	71.1		8.9	67.1		24.0	24.0		12.3	12.3	12.3
Effective Green, g (s)	12.9	71.1		8.9	67.1		24.0	24.0		12.3	12.3	12.3
Actuated g/C Ratio	0.10	0.53		0.07	0.50		0.18	0.18		0.09	0.09	0.09
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	168	974		116	905		313	304		160	169	143
v/s Ratio Prot	c0.07	c0.52		c0.06	0.36		0.03	c0.18		0.03	c0.04	
v/s Ratio Perm	00.01	00.02		00.00	0.00		0.00	00.10		0.00	00.01	0.01
v/c Ratio	0.74	0.99		0.87	0.72		0.19	1.04		0.38	0.45	0.06
Uniform Delay, d1	59.6	31.8		62.6	26.8		47.4	55.7		57.9	58.3	56.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	14.7	26.4		45.9	3.5		0.5	62.9		2.5	3.3	0.3
Delay (s)	74.3	58.2		108.5	30.3		47.9	118.5		60.4	61.6	56.6
Level of Service	Ε	E		F	C		D	F		E	E	E
Approach Delay (s)	_	60.0			40.7			108.0		_	59.1	
Approach LOS		E			D			F			E	
Intersection Summary												
HCM 2000 Control Delay			61.8	Н	CM 2000	Level of	Service		Е			
HCM 2000 Volume to Capa	acity ratio		0.94									
Actuated Cycle Length (s)	,		135.3	S	um of los	t time (s)			19.0			
Intersection Capacity Utiliza	ation		89.7%			of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

		→	*	*	-	_	7	I		*	*	*
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				Jel.	4	74	34.34	44			44	7
Volume (vph)	0	0	0	611	0	253	469	654	0	0	903	1273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.95	0.95	1.00	0.97	0.95			0.95	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1681	1583	3433	3539			3539	1583
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1681	1583	3433	3539			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	664	0	275	510	711	0	0	982	1384
RTOR Reduction (vph)	0	0	0	0	0	195	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	332	332	80	510	711	0	0	982	1384
Turn Type				Split	NA	Perm	Prot	NA			NA	Free
Protected Phases				8	8		5	2			6	
Permitted Phases						8						Free
Actuated Green, G (s)				28.4	28.4	28.4	18.6	93.6			71.0	130.0
Effective Green, g (s)				28.4	28.4	28.4	18.6	93.6			71.0	130.0
Actuated g/C Ratio				0.22	0.22	0.22	0.14	0.72			0.55	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				367	367	345	491	2548			1932	1583
v/s Ratio Prot				0.20	0.20		0.15	0.20			0.28	
v/s Ratio Perm						0.05						c0.87
v/c Ratio				0.90	0.90	0.23	1.04	0.28			0.51	0.87
Uniform Delay, d1				49.5	49.5	41.8	55.7	6.4			18.5	0.0
Progression Factor				1.00	1.00	1.00	0.97	0.81			0.76	1.00
Incremental Delay, d2				24.8	24.8	0.3	50.7	0.3			0.8	6.3
Delay (s)				74.3	74.3	42.2	104.9	5.4			14.9	6.3
Level of Service				Ε	Е	D	F	Α			В	Α
Approach Delay (s)		0.0			64.9			47.0			9.9	
Approach LOS		Α			Е			D			Α	
Intersection Summary												
HCM 2000 Control Delay			31.3	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capacity	y ratio		0.96									
Actuated Cycle Length (s)			130.0		um of los	(-)			12.0			
Intersection Capacity Utilizatio	n		65.3%	IC	U Level	of Service)		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch

Existing+PP MIT
PM Peak

12: El Dorado Hills Blvd. & Francisco Dr.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	71		4		Jal.	10		1	1>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	41	449	26	35	40	504	387	19	9	219	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	488	28	38	43	548	421	21	10	238	2
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	45	488	110	548	441	10	240					
Volume Left (vph)	0	0	28	548	0	10	0					
Volume Right (vph)	0	488	43	0	21	0	2					
Hadj (s)	0.03	-0.57	-0.15	0.53	0.00	0.53	0.03					
Departure Headway (s)	6.6	3.2	6.2	5.9	5.3	6.8	6.3					
Degree Utilization, x	0.08	0.43	0.19	0.89	0.65	0.02	0.42					
Capacity (veh/h)	514	1115	557	609	669	508	554					
Control Delay (s)	10.2	8.6	10.6	37.7	16.6	8.7	12.5					
Approach Delay (s)	8.8		10.6	28.3		12.4						
Approach LOS	Α		В	D		В						
Intersection Summary												
Delay			19.6									
Level of Service			С									
Intersection Capacity Utilizatio	n		62.0%	IC	U Level	of Service			В			
Analysis Period (min)			15									

Dixon Ranch
17: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB Ramp

Existing+PP MIT PM Peak

Lane Configurations Volume (vph) Ideal Flow (vphpl) 19 Total Lost time (s) Lane Util. Factor Frt Flt Protected Satd. Flow (prot) Flt Permitted Satd. Flow (perm)	0 900	EBT 0	EBR	WBL	WBT	WBR	NIDI	NIDT				
Volume (vph) Ideal Flow (vphpl) 19 Total Lost time (s) Lane Util. Factor Frt Fit Protected Satd. Flow (prot) Fit Permitted Satd. Flow (perm) Peak-hour factor, PHF 0. Adj. Flow (vph) Lane Group Flow (vph)		0			1101	WDK	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl) 19 Total Lost time (s) Lane Util. Factor Frt Fit Protected Satd. Flow (prot) Fit Permitted Satd. Flow (perm) Peak-hour factor, PHF 0. Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph)		0		,bc	4	74	34 40	44			44	f
Total Lost time (s) Lane Util. Factor Frt Fit Protected Satd. Flow (prot) Fit Permitted Satd. Flow (perm) Peak-hour factor, PHF 0. Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph)	900		0	303	1	265	1137	1826	0	0	619	561
Lane Util. Factor Frt Frt Fit Protected Satd. Flow (prot) Fit Permitted Satd. Flow (perm) Peak-hour factor, PHF Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph)		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Frt Fit Protected Satd. Flow (prot) Fit Permitted Satd. Flow (perm) Peak-hour factor, PHF 0. Adj. Flow (yph) Lane Group Flow (yph)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Fit Protected Satd. Flow (prot) Fit Permitted Satd. Flow (perm) Peak-hour factor, PHF 0. Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph)				0.95	0.95	1.00	0.97	0.95			0.95	1.00
Satd. Flow (prot) Fit Permitted Satd. Flow (perm) Peak-hour factor, PHF 0. Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph)				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Fit Permitted Satd. Flow (perm) Peak-hour factor, PHF 0. Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph)				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm) Peak-hour factor, PHF 0. Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph)				1681	1686	1583	3433	3539			3539	1583
Peak-hour factor, PHF 0. Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph)				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph)				1681	1686	1583	3433	3539			3539	1583
RTOR Reduction (vph) Lane Group Flow (vph)	.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph)	0	0	0	329	1	288	1236	1985	0	0	673	610
	0	0	0	0	0	39	0	0	0	0	0	241
Turn Type	0	0	0	164	166	249	1236	1985	0	0	673	369
ruiii rype				Split	NA	Perm	Prot	NA			NA	Perm
Protected Phases				8	8		5	2			6	
Permitted Phases						8						6
Actuated Green, G (s)				20.1	20.1	20.1	36.9	86.9			46.0	46.0
Effective Green, g (s)				20.1	20.1	20.1	36.9	86.9			46.0	46.0
Actuated g/C Ratio				0.17	0.17	0.17	0.32	0.76			0.40	0.40
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				293	294	276	1101	2674			1415	633
v/s Ratio Prot				0.10	0.10		c0.36	c0.56			0.19	
v/s Ratio Perm						c0.16						0.23
v/c Ratio				0.56	0.56	0.90	1.12	0.74			0.48	0.58
Uniform Delay, d1				43.4	43.4	46.5	39.1	7.8			25.6	27.0
Progression Factor				1.00	1.00	1.00	0.90	1.30			0.71	0.65
Incremental Delay, d2				2.3	2.5	30.2	65.2	1.5			1.1	3.8
Delay (s)				45.7	45.9	76.6	100.2	11.7			19.1	21.4
Level of Service				D	D	E	F	В			В	С
Approach Delay (s)		0.0			60.2			45.7			20.2	
Approach LOS		Α			Ε			D			С	
Intersection Summary												
HCM 2000 Control Delay			41.0	H	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacity rat	tio		0.93									
Actuated Cycle Length (s)			115.0	Sı	um of los	t time (s)			12.0			
Intersection Capacity Utilization			85.6%	IC	U Level	of Service)		Е			
Analysis Period (min)			15									
c Critical Lane Group			10									

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3/18/2013 Kimley-Horn and Associates, Inc.

Dixon Ranch
2: El Dorado Hills Blvd. & Green Valley Rd.

Existing+PP MIT AM Peak

	۶	→	•	←	4	†	-	↓	4
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	25	346	171	933	39	133	117	249	173
v/c Ratio	0.39	0.44	0.71	0.91	0.20	0.62	0.38	0.76	0.41
Control Delay	85.2	29.0	71.8	40.6	59.6	59.5	54.7	69.0	10.4
Queue Delay	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0
Total Delay	85.2	29.0	71.8	41.7	59.6	59.5	54.7	69.0	10.4
Queue Length 50th (ft)	23	210	156	748	34	96	99	226	0
Queue Length 95th (ft)	#63	319	233	#1083	72	170	165	#360	67
Internal Link Dist (ft)		1935		786		1468		502	
Turn Bay Length (ft)	85		105		165				
Base Capacity (vph)	64	948	345	1223	247	265	354	373	455
Starvation Cap Reductn	0	0	0	116	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.36	0.50	0.84	0.16	0.50	0.33	0.67	0.38

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Dixon Ranch
17: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB Ramp

Existing+PP MIT AM Peak

	€	•	•	1	†	ţ	4
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	332	332	275	510	711	982	1384
v/c Ratio	0.90	0.90	0.51	1.04	0.28	0.51	0.87
Control Delay	77.6	77.6	10.5	104.0	5.6	15.1	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.4	0.0
Total Delay	77.6	77.6	10.5	104.0	5.6	16.5	12.3
Queue Length 50th (ft)	284	284	17	~258	71	212	221
Queue Length 95th (ft)	#454	#454	95	#351	86	252	1252
Internal Link Dist (ft)		600			562	99	
Turn Bay Length (ft)	410		185	260			
Base Capacity (vph)	387	387	557	489	2547	1932	1583
Starvation Cap Reductn	0	0	0	0	0	704	0
Spillback Cap Reductn	0	0	6	0	94	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.86	0.50	1.04	0.29	0.80	0.87
Intersection Summary							

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd. Existing+PP MIT PM Peak

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EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
124	965	101	656	60	343	60	76	102	
0.74	0.99	0.87	0.72	0.19	1.04	0.38	0.45	0.43	
84.9	58.8	116.0	33.0	50.1	107.8	64.3	66.7	15.2	
0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
84.9	58.8	116.0	33.3	50.1	107.8	64.3	66.7	15.2	
107	812	89	447	45	~299	50	64	0	
#196	#1190	#208	639	92	#517	98	117	52	
	1935		786		1468		502		
85		105		165					
187	974	116	908	314	331	289	304	346	
0	0	0	36	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	

1.04

0.21

0.25 0.29

Reduced v/c Ratio

Lane Group
Lane Group Flow (vph)
v/c Ratio
Control Delay
Queue Delay
Total Delay
Queue Length 50th (ft)
Queue Length 95th (ft)
Internal Link Dist (ft)
Turn Bay Length (ft)
Base Capacity (vph)
Starvation Cap Reductn
Storage Cap Reductn
Storage Cap Reductn

0.87

0.75 0.19

Queue shown is maximum after two cycles.

Dixon Ranch
17: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB Ramp

	•	•	•	1	Ť	ţ	4	
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	
Lane Group Flow (vph)	164	166	288	1236	1985	673	610	
v/c Ratio	0.56	0.56	0.91	1.12	0.74	0.48	0.70	
Control Delay	51.2	51.3	72.3	99.2	12.3	19.3	10.6	
Queue Delay	0.0	0.0	1.8	0.0	3.2	23.1	2.1	
Total Delay	51.2	51.3	74.0	99.2	15.5	42.4	12.7	
Queue Length 50th (ft)	116	118	178	~557	537	150	89	
Queue Length 95th (ft)	192	194	#336	#694	657	164	107	
Internal Link Dist (ft)		600			562	99		
Turn Bay Length (ft)	410		185	260				
Base Capacity (vph)	306	307	327	1101	2674	1415	874	
Starvation Cap Reductn	0	0	0	0	339	753	143	
Spillback Cap Reductn	0	0	7	0	570	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.54	0.54	0.90	1.12	0.94	1.02	0.83	
Intersection Summary								

Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

Existing+PP MIT

PM Peak

[~] Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

EPAP+PP MIT AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	T.		146	T.		, bel	To		75	4	f
Volume (vph)	32	369	17	120	977	66	36	84	45	119	308	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0		4.0	5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1851		1770	1845		1770	1765		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1851		1770	1845		1770	1765		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	401	18	130	1062	72	39	91	49	129	335	196
RTOR Reduction (vph)	0	1	0	0	2	0	0	14	0	0	0	157
Lane Group Flow (vph)	35	418	0	130	1132	0	39	126	0	129	335	39
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases												4
Actuated Green, G (s)	3.0	69.8		14.2	81.0		7.1	19.9		14.4	25.7	25.7
Effective Green, q (s)	3.0	69.8		14.2	81.0		7.1	19.9		14.4	25.7	25.7
Actuated g/C Ratio	0.02	0.51		0.10	0.60		0.05	0.15		0.11	0.19	0.19
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0		4.0	5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		3.0	3.0		3.0	4.5	4.5
Lane Grp Cap (vph)	39	951		185	1100		92	258		187	352	299
v/s Ratio Prot	0.02	0.23		c0.07	c0.61		0.02	0.07		c0.07	c0.18	
v/s Ratio Perm												0.02
v/c Ratio	0.90	0.44		0.70	1.03		0.42	0.49		0.69	0.95	0.13
Uniform Delay, d1	66.2	20.7		58.8	27.4		62.4	53.3		58.5	54.4	45.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	102.8	0.7		10.7	34.9		3.1	1.5		10.1	35.8	0.3
Delay (s)	169.1	21.4		69.4	62.3		65.5	54.7		68.7	90.2	46.1
Level of Service	F	С		Е	E		E	D		E	F	D
Approach Delay (s)		32.8			63.1			57.1			72.9	
Approach LOS		С			Е			Е			Е	
Intersection Summary												
HCM 2000 Control Delay			59.8	Н	CM 2000	Level of	Service		E			
HCM 2000 Volume to Capa	acity ratio		1.00		OW 2000	LOVOI OI	0011100					
Actuated Cycle Length (s)	acity ratio		135.8	9	um of los	t time (e)			19.0			
Intersection Capacity Utiliz	ation		94.5%			of Service			F			
Analysis Period (min)	ulion		15	- 10	O LOVEI	or our vice						
c Critical Lane Group			13									
c offical Latte Group												

	-	•	•	•	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			4	19	S _{fL}
Volume (veh/h)	416	13	6	925	23	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	452	14	7	1005	25	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			466		1478	459
vC1, stage 1 conf vol					459	
vC2, stage 2 conf vol					1018	
vCu, unblocked vol			466		1478	459
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			99		92	99
cM capacity (veh/h)			1095		316	602
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	466	1012	25	7		
Volume Left	400	7	25	0		
	14	0	0	7		
Volume Right cSH	1700	1095	316	602		
Volume to Capacity	0.27	0.01	0.08	0.01		
Queue Length 95th (ft)	0	0.2	6 17.4	11.0		
Control Delay (s) Lane LOS	0.0	0.2 A	17.4 C			
	0.0			В		
Approach Delay (s)	0.0	0.2	16.1			
Approach LOS			С			
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utili	zation		63.5%	IC	U Level	of Service
Analysis Period (min)			15			

3/18/2013 Kimley-Horn and Associates, Inc.

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EPAP+PP MIT AM Peak Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	4	71					44	ř*	1, 1	44	
Volume (vph)	397	0	110	0	0	0	0	576	570	613	1002	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.91	0.95					0.95	1.00	0.97	0.95	
Frt	1.00	0.99	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1605	1504					3539	1583	3433	3539	
Flt Permitted	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1681	1605	1504					3539	1583	3433	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	432	0	120	0	0	0	0	626	620	666	1089	0
RTOR Reduction (vph)	0	56	89	0	0	0	0	0	264	0	0	0
Lane Group Flow (vph)	225	163	19	0	0	0	0	626	356	666	1089	0
Turn Type	Split	NA	Perm					NA	Perm	Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4						2			
Actuated Green, G (s)	14.3	14.3	14.3					32.4	32.4	21.3	57.7	
Effective Green, g (s)	14.3	14.3	14.3					32.4	32.4	21.3	57.7	
Actuated g/C Ratio	0.18	0.18	0.18					0.40	0.40	0.27	0.72	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	300	286	268					1433	641	914	2552	
v/s Ratio Prot	c0.13	0.10						0.18		c0.19	0.31	
v/s Ratio Perm			0.01						c0.22			
v/c Ratio	0.75	0.57	0.07					0.44	0.56	0.73	0.43	
Uniform Delay, d1	31.2	30.0	27.3					17.2	18.3	26.7	4.5	
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.70	0.16	
Incremental Delay, d2	10.1	2.7	0.1					1.0	3.4	1.1	0.2	
Delay (s)	41.2	32.8	27.4					18.2	21.7	19.8	0.9	
Level of Service	D	С	С					В	С	В	Α	
Approach Delay (s)		35.2			0.0			19.9			8.1	
Approach LOS		D			Α			В			Α	
Intersection Summary												
HCM 2000 Control Delay			16.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	acity ratio		0.65									
Actuated Cycle Length (s)			80.0		um of los				12.0			
Intersection Capacity Utiliz	ation		83.8%	IC	U Level	of Service)		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3,2	T.		Jal.	74		140	10		1	4	#
Volume (vph)	138	1063	24	69	630	96	55	214	122	65	101	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1857		1770	1826		1770	1761		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1857		1770	1826		1770	1761		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	1155	26	75	685	104	60	233	133	71	110	118
RTOR Reduction (vph)	0	0	0	0	4	0	0	14	0	0	0	104
Lane Group Flow (vph)	150	1181	0	75	785	0	60	352	0	71	110	14
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		4	7		8	3	
Permitted Phases												3
Actuated Green, G (s)	14.1	85.5		5.5	76.9		15.4	24.3		8.6	17.5	17.5
Effective Green, g (s)	14.1	85.5		5.5	76.9		15.4	24.3		8.6	17.5	17.5
Actuated g/C Ratio	0.10	0.60		0.04	0.54		0.11	0.17		0.06	0.12	0.12
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	174	1111		68	982		190	299		106	228	193
v/s Ratio Prot	c0.08	c0.64		c0.04	0.43		0.03	c0.20		c0.04	0.06	
v/s Ratio Perm												0.01
v/c Ratio	0.86	1.06		1.10	0.80		0.32	1.18		0.67	0.48	0.07
Uniform Delay, d1	63.4	28.7		68.7	26.8		58.9	59.3		65.8	58.5	55.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	32.6	45.3		140.1	5.3		1.7	108.9		17.6	2.8	0.3
Delay (s)	96.0	74.0		208.8	32.1		60.5	168.2		83.4	61.2	55.8
Level of Service	F	Е		F	С		Ε	F		F	Е	Е
Approach Delay (s)		76.5			47.4			153.0			64.4	
Approach LOS		Е			D			F			Е	
Intersection Summary												
HCM 2000 Control Delay			77.8	H	CM 2000	Level of S	Service		Е			
HCM 2000 Volume to Capac	city ratio		1.06									
Actuated Cycle Length (s)			142.9	S	um of lost	t time (s)			19.0			
Intersection Capacity Utilizat	tion		99.8%	IC	U Level	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

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Synchro 8 - Report Page 1 3/18/2013 Kimley-Horn and Associates, Inc.

EPAP+PP MIT PM Peak Dixon Ranch 19: Silva Valley Pkwy & EB US-50 Ramps

	-	•	•	←	•	/
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			41	75	St.
Volume (veh/h)	1044	27	4	592	21	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1135	29	4	643	23	4
Pedestrians			•			•
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1164		1802	1149
vC1, stage 1 conf vol					1149	
vC2, stage 2 conf vol					652	
vCu, unblocked vol			1164		1802	1149
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	0.2
tF (s)			2.2		3.5	3.3
p0 queue free %			99		91	98
cM capacity (veh/h)			600		264	241
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	20.	
Volume Total	1164	648	23	4		
Volume Left	0	4	23	0		
Volume Right	29	0	0	4		
cSH	1700	600	264	241		
	0.68	0.01	0.09	0.02		
Volume to Capacity						
Queue Length 95th (ft)	0	1	7	1		
Control Delay (s) Lane LOS	0.0	0.2	19.9 C	20.2 C		
	0.0	A		C		
Approach Delay (s)	0.0	0.2	19.9			
Approach LOS			С			
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utiliz	zation		66.6%	IC	U Level	of Service
Analysis Period (min)			15			

		→	*	*	-	_	7	ı		*	*	*
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3/2	4	71					44	i"	14 14	44	
Volume (vph)	528	0	184	0	0	0	0	919	743	866	1033	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.91	0.95					0.95	1.00	0.97	0.95	
Frt	1.00	0.99	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.96	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1603	1504					3539	1583	3433	3539	
Flt Permitted	0.95	0.96	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1681	1603	1504					3539	1583	3433	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	574	0	200	0	0	0	0	999	808	941	1123	0
RTOR Reduction (vph)	0	46	131	0	0	0	0	0	210	0	0	0
Lane Group Flow (vph)	298	250	49	0	0	0	0	999	598	941	1123	0
Turn Type	Split	NA	Perm					NA	Perm	Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4						2			
Actuated Green, G (s)	16.0	16.0	16.0					38.2	38.2	33.8	76.0	
Effective Green, g (s)	16.0	16.0	16.0					38.2	38.2	33.8	76.0	
Actuated g/C Ratio	0.16	0.16	0.16					0.38	0.38	0.34	0.76	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	268	256	240					1351	604	1160	2689	
v/s Ratio Prot	c0.18	0.16						0.28		c0.27	0.32	
v/s Ratio Perm			0.03						c0.38			
v/c Ratio	1.11	0.98	0.20					0.74	0.99	0.81	0.42	
Uniform Delay, d1	42.0	41.8	36.5					26.6	30.7	30.2	4.2	
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.92	0.58	
Incremental Delay, d2	88.4	49.0	0.4					3.7	34.2	1.6	0.2	
Delay (s)	130.4	90.8	36.9					30.3	64.9	29.3	2.6	
Level of Service	F	F	D					С	Е	С	Α	
Approach Delay (s)		93.5			0.0			45.8			14.8	
Approach LOS		F			Α			D			В	
Intersection Summary												
HCM 2000 Control Delay			40.0	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	acity ratio		0.94									
Actuated Cycle Length (s)			100.0		um of los				12.0			
Intersection Capacity Utiliza	ation		122.0%	IC	U Level	of Service	9		Н			
Analysis Period (min)			15									
c Critical Lane Group												

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Dixon Ranch 2: El Dorado Hills Blvd. & Green Valley Rd. EPAP+PP MIT AM Peak

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	35	419	130	1134	39	140	129	335	196	
v/c Ratio	0.69	0.44	0.70	1.02	0.35	0.53	0.68	0.94	0.43	
Control Delay	121.5	23.8	77.9	59.7	70.8	56.0	76.7	88.8	9.7	
Queue Delay	0.0	0.0	0.0	30.5	0.0	0.0	0.0	0.0	0.0	
Total Delay	121.5	23.8	77.9	90.1	70.8	56.0	76.7	88.8	9.7	
Queue Length 50th (ft)	32	231	114	~1098	34	103	112	301	1	
Queue Length 95th (ft)	#98	358	185	#1428	74	178	185	#506	70	
Internal Link Dist (ft)		1935		786		1468		502		
Turn Bay Length (ft)	85		105		165					
Base Capacity (vph)	51	951	250	1113	211	343	238	357	460	
Starvation Cap Reductn	0	0	0	92	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.69	0.44	0.52	1.11	0.18	0.41	0.54	0.94	0.43	

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Dixon Ranch **EPAP+PP MIT** 19: Silva Valley Pkwy & EB US-50 Ramps

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Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	225	219	108	626	620	666	1089	
v/c Ratio	0.75	0.64	0.30	0.44	0.69	0.73	0.43	
Control Delay	47.0	29.4	8.5	19.9	11.3	20.3	0.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.4	
Total Delay	47.0	29.4	8.5	19.9	11.3	20.3	1.3	
Queue Length 50th (ft)	110	73	0	120	59	98	1	
Queue Length 95th (ft)	#204	151	42	187	#217	m101	m1	
Internal Link Dist (ft)		797		881			399	
Turn Bay Length (ft)								
Base Capacity (vph)	336	375	387	1431	904	1373	2550	
Starvation Cap Reductn	0	0	0	0	0	0	816	
Spillback Cap Reductn	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.67	0.58	0.28	0.44	0.69	0.49	0.63	
Intersection Summary								
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95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

AM Peak

Dixon Ranch
2: El Dorado Hills Blvd. & Green Valley Rd.

EPAP+PP MIT

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PM Peak	

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	150	1181	75	789	60	366	71	110	118	
v/c Ratio	0.86	1.05	1.09	0.79	0.29	1.16	0.55	0.48	0.36	
Control Delay	101.4	71.0	197.3	34.3	61.3	150.6	80.9	67.2	7.0	
Queue Delay	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	
Total Delay	101.4	71.0	197.3	36.5	61.3	150.6	80.9	67.2	7.0	
Queue Length 50th (ft)	141	~1245	~81	602	51	~403	66	100	0	
Queue Length 95th (ft)	#264	#1515	#191	799	100	#611	121	163	34	
Internal Link Dist (ft)		1935		786		1468		502		
Turn Bay Length (ft)	85		105		165					
Base Capacity (vph)	185	1121	69	994	233	315	137	252	342	
Starvation Cap Reductn	0	0	0	100	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.81	1.05	1.09	0.88	0.26	1.16	0.52	0.44	0.35	

Intersection Summary

Queue shown is maximum after two cycles.

Dixon Ranch 19: Silva Valley Pkwy & EB US-50 Ramps EPAP+PP MIT PM Peak

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Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	298	296	180	999	808	941	1123
v/c Ratio	1.11	0.98	0.49	0.74	0.99	0.81	0.42
Control Delay	128.8	82.7	13.7	32.0	50.0	29.5	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	0.8
Total Delay	128.8	82.7	13.7	32.0	50.0	29.8	3.4
Queue Length 50th (ft)	~229	172	13	285	344	281	77
Queue Length 95th (ft)	#402	#360	78	#438	#665	m236	m75
Internal Link Dist (ft)		797		881			399
Turn Bay Length (ft)							
Base Capacity (vph)	268	302	371	1350	814	1441	2689
Starvation Cap Reductn	0	0	0	0	0	102	1142
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	0.98	0.49	0.74	0.99	0.70	0.73
Internation Comments							

Intersection Summar

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Volume exceeds capacity, queue is theoretically infinite.

Cumulative+PP MIT

AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	47.		Jal.	47		jąć	10		1	4	#
Volume (vph)	32	375	24	121	1108	69	47	84	45	147	330	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3507		1770	3508		1770	1765		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3507		1770	3508		1770	1765		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	408	26	132	1204	75	51	91	49	160	359	236
RTOR Reduction (vph)	0	4	0	0	4	0	0	20	0	0	0	178
Lane Group Flow (vph)	35	430	0	132	1275	0	51	120	0	160	359	58
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												8
Actuated Green, G (s)	1.8	25.3		10.5	34.0		9.4	16.1		14.2	20.9	20.9
Effective Green, g (s)	1.8	25.3		10.5	34.0		9.4	16.1		14.2	20.9	20.9
Actuated g/C Ratio	0.02	0.30		0.12	0.40		0.11	0.19		0.17	0.25	0.25
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	37	1042		218	1401		195	333		295	457	388
v/s Ratio Prot	0.02	0.12		c0.07	c0.36		0.03	0.07		c0.09	c0.19	
v/s Ratio Perm												0.04
v/c Ratio	0.95	0.41		0.61	0.91		0.26	0.36		0.54	0.79	0.15
Uniform Delay, d1	41.6	23.9		35.3	24.1		34.7	30.0		32.5	30.0	25.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	125.2	0.6		4.0	9.5		1.2	1.1		3.0	9.6	0.3
Delay (s)	166.8	24.5		39.3	33.6		35.9	31.2		35.5	39.6	25.4
Level of Service	F	С		D	С		D	С		D	D	С
Approach Delay (s)		35.1			34.1			32.4			34.3	
Approach LOS		D			С			С			С	
Intersection Summary												
HCM 2000 Control Delay			34.2	Н	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.83									
Actuated Cycle Length (s)			85.1		um of los				19.0			
Intersection Capacity Utiliza	ition		73.1%	IC	CU Level	of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	13			্ৰ	75	₽*	
Volume (veh/h)	448	16	7	940	29	7	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	487	17	8	1022	32	8	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	TWLTL			TWLTL			
Median storage veh)	2			2			
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			504		1533	496	
vC1, stage 1 conf vol					496		
vC2, stage 2 conf vol					1037		
vCu, unblocked vol			504		1533	496	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)					5.4		
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		90	99	
cM capacity (veh/h)			1060		307	574	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2			
Volume Total	504	1029	32	8			
Volume Left	0	8	32	0			
Volume Right	17	0	0	8			
cSH	1700	1060	307	574			
Volume to Capacity	0.30	0.01	0.10	0.01			
Queue Length 95th (ft)	0.30	1	9	1			
Control Delay (s)	0.0	0.2	18.1	11.4			
Lane LOS	0.0	0.2 A	10.1 C	11.4 B			
Approach Delay (s)	0.0	0.2	16.8	U			
Approach LOS	0.0	0.2	10.0				
Intersection Summary							
Average Delay			0.6				
Intersection Capacity Uti	lization		65.0%	IC	:III evel	of Service	С
Analysis Period (min)	nzation		15	ic	LOVE!	JI JUI VIUE	C
raidiyələ i orlou (illili)			10				

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Cumulative+PP MIT AM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	To.		ją,	14			4			4	
Volume (vph)	8	363	4	11	637	7	22	0	32	25	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			0.92			0.91	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1770	1860		1770	1860			1679			1673	
Flt Permitted	0.34	1.00		0.53	1.00			0.83			0.86	
Satd. Flow (perm)	640	1860		982	1860			1430			1456	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	395	4	12	692	8	24	0	35	27	0	47
RTOR Reduction (vph)	0	0	0	0	1	0	0	31	0	0	42	0
Lane Group Flow (vph)	9	399	0	12	699	0	0	28	0	0	32	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	25.8	25.8		25.8	25.8			3.9			3.9	
Effective Green, g (s)	25.8	25.8		25.8	25.8			3.9			3.9	
Actuated g/C Ratio	0.68	0.68		0.68	0.68			0.10			0.10	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	437	1272		672	1272			147			150	
v/s Ratio Prot		0.21			c0.38							
v/s Ratio Perm	0.01			0.01				0.02			c0.02	
v/c Ratio	0.02	0.31		0.02	0.55			0.19			0.21	
Uniform Delay, d1	1.9	2.4		1.9	3.0			15.5			15.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.1		0.0	0.5			0.6			0.7	
Delay (s)	1.9	2.5		1.9	3.5			16.1			16.2	
Level of Service	Α	Α		Α	Α			В			В	
Approach Delay (s)		2.5			3.5			16.1			16.2	
Approach LOS		Α			Α			В			В	
Intersection Summary												
HCM 2000 Control Delay			4.5	Н	CM 2000	Level of	Service		Α			
HCM 2000 Volume to Capa	city ratio		0.51									
Actuated Cycle Length (s)			37.7	S	um of los	t time (s)			8.0			
Intersection Capacity Utiliza	ation		45.6%	IC	U Level	of Service)		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Volume (vph)	43	1	103	198	2	130	31	341	66	44	404	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.91			0.95			0.98			0.99	
Flt Protected		0.99			0.97			1.00			1.00	
Satd. Flow (prot)		1662			1712			1818			1840	
Flt Permitted		0.85			0.77			0.95			0.93	
Satd. Flow (perm)		1437			1352			1729			1720	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	1	112	215	2	141	34	371	72	48	439	29
RTOR Reduction (vph)	0	71	0	0	42	0	0	11	0	0	3	0
Lane Group Flow (vph)	0	89	0	0	316	0	0	466	0	0	513	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.3			15.3			18.0			18.0	
Effective Green, g (s)		15.3			15.3			18.0			18.0	
Actuated g/C Ratio		0.37			0.37			0.44			0.44	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		532			500			753			749	
v/s Ratio Prot												
v/s Ratio Perm		0.06			c0.23			0.27			c0.30	
v/c Ratio		0.17			0.63			0.62			0.68	
Uniform Delay, d1		8.7			10.7			9.0			9.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			2.6			1.5			2.6	
Delay (s)		8.9			13.3			10.5			12.0	
Level of Service		Α			В			В			В	
Approach Delay (s)		8.9			13.3			10.5			12.0	
Approach LOS		Α			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			11.5	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capac	city ratio		0.66									
Actuated Cycle Length (s)			41.3		um of los				8.0			
Intersection Capacity Utilizat	ion		67.9%	IC	CU Level	of Service)		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	44		ja,	47		jąć,	10		1	4	7
Volume (vph)	138	1063	36	69	722	104	73	214	122	74	101	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3522		1770	3472		1770	1761		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3522		1770	3472		1770	1761		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	1155	39	75	785	113	79	233	133	80	110	142
RTOR Reduction (vph)	0	2	0	0	11	0	0	21	0	0	0	112
Lane Group Flow (vph)	150	1192	0	75	887	0	79	345	0	80	110	30
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												8
Actuated Green, G (s)	9.4	31.7		4.9	27.2		10.5	17.6		10.5	17.6	17.6
Effective Green, q (s)	9.4	31.7		4.9	27.2		10.5	17.6		10.5	17.6	17.6
Actuated g/C Ratio	0.11	0.38		0.06	0.32		0.13	0.21		0.13	0.21	0.21
Clearance Time (s)	3.5	6.0		3.5	6.0		4.0	4.0		5.5	5.5	5.5
Vehicle Extension (s)	2.5	5.0		2.5	5.0		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	198	1333		103	1128		222	370		222	391	332
v/s Ratio Prot	c0.08	c0.34		0.04	0.26		0.04	c0.20		c0.05	0.06	
v/s Ratio Perm												0.02
v/c Ratio	0.76	0.89		0.73	0.79		0.36	0.93		0.36	0.28	0.09
Uniform Delay, d1	36.0	24.4		38.7	25.6		33.5	32.5		33.5	27.7	26.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	14.5	8.6		21.2	4.3		1.7	30.5		1.7	0.7	0.2
Delay (s)	50.6	33.0		60.0	29.9		35.2	62.9		35.2	28.4	26.8
Level of Service	D	С		Е	С		D	Е		D	С	С
Approach Delay (s)		34.9			32.2			58.0			29.4	
Approach LOS		С			С			Е			С	
Intersection Summary												
HCM 2000 Control Delay			36.8	Н	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capa	acity ratio		0.83		OW LOOK	2010101	0011100					
Actuated Cycle Length (s)	acity ratio		83.7	S	um of los	t time (e)			19.0			
Intersection Capacity Utiliza	ation		73.4%			of Service	,		13.0 D			
Analysis Period (min)	audii		15.476	10	O LOVEI	0. 00. 100			J			
c Critical Lane Group			13									
o official Earle Group												

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1			4	7	ř	
Volume (veh/h)	1063	33	5	603	26	5	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	1155	36	5	655	28	5	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	TWLTL			TWLTL			
Median storage veh)	2			2			
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			1191		1840	1173	
vC1, stage 1 conf vol					1173		
vC2, stage 2 conf vol					666		
vCu, unblocked vol			1191		1840	1173	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)					5.4		
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		89	98	
cM capacity (veh/h)			586		257	234	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2			
Volume Total	1191	661	28	5			
Volume Left	0	5	28	0			
Volume Right	36	0	0	5			
cSH	1700	586	257	234			
Volume to Capacity	0.70	0.01	0.11	0.02			
Queue Length 95th (ft)	0	1	9	2			
Control Delay (s)	0.0	0.3	20.7	20.8			
Lane LOS		Α	С	С			
Approach Delay (s)	0.0	0.3	20.7				
Approach LOS			С				
Intersection Summary							
Average Delay			0.5				
Intersection Capacity Utiliz	zation		67.9%	IC	U Level	of Service	
Analysis Period (min)			15				
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Cumulative+PP MIT PM Peak

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3	7.		Jac.	7.			4			4	
Volume (vph)	51	771	26	39	486	8	18	2	23	10	0	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			0.93			0.91	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1770	1854		1770	1858			1693			1666	
Flt Permitted	0.46	1.00		0.28	1.00			1.00			1.00	
Satd. Flow (perm)	853	1854		524	1858			1729			1693	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	838	28	42	528	9	20	2	25	11	0	23
RTOR Reduction (vph)	0	1	0	0	1	0	0	24	0	0	22	0
Lane Group Flow (vph)	55	865	0	42	536	0	0	23	0	0	12	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.1	32.1		32.1	32.1			2.4			2.4	
Effective Green, g (s)	32.1	32.1		32.1	32.1			2.4			2.4	
Actuated g/C Ratio	0.76	0.76		0.76	0.76			0.06			0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	644	1400		395	1403			97			95	
v/s Ratio Prot		c0.47			0.29							
v/s Ratio Perm	0.06			0.08				c0.01			0.01	
v/c Ratio	0.09	0.62		0.11	0.38			0.24			0.13	
Uniform Delay, d1	1.4	2.4		1.4	1.8			19.2			19.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.8		0.1	0.2			1.3			0.6	
Delay (s)	1.4	3.2		1.5	2.0			20.5			19.7	
Level of Service	Α	Α		Α	Α			С			В	
Approach Delay (s)		3.1			1.9			20.5			19.7	
Approach LOS		Α			Α			С			В	
Intersection Summary												
HCM 2000 Control Delay			3.5	H	CM 2000	Level of	Service		Α			
HCM 2000 Volume to Capa	city ratio		0.59									
Actuated Cycle Length (s)	•		42.5	S	um of los	t time (s)			8.0			
Intersection Capacity Utiliza	ation		52.7%	IC	U Level	of Service	Э		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Volume (vph)	21	5	48	82	2	83	111	489	141	115	325	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.91			0.93			0.97			0.99	
Flt Protected		0.99			0.98			0.99			0.99	
Satd. Flow (prot)		1675			1696			1801			1819	
Flt Permitted		0.90			0.84			0.86			0.73	
Satd. Flow (perm)		1524			1453			1567			1338	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	5	52	89	2	90	121	532	153	125	353	45
RTOR Reduction (vph)	0	44	0	0	68	0	0	12	0	0	5	0
Lane Group Flow (vph)	0	36	0	0	113	0	0	794	0	0	518	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.7			7.7			31.9			31.9	
Effective Green, g (s)		7.7			7.7			31.9			31.9	
Actuated g/C Ratio		0.16			0.16			0.67			0.67	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		246			235			1050			896	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.08			c0.51			0.39	
v/c Ratio		0.15			0.48			0.76			0.58	
Uniform Delay, d1		17.1			18.1			5.3			4.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			1.6			3.2			0.9	
Delay (s)		17.4			19.7			8.4			5.1	
Level of Service		В			В			Α			Α	
Approach Delay (s)		17.4			19.7			8.4			5.1	
Approach LOS		В			В			Α			Α	
Intersection Summary												
HCM 2000 Control Delay			9.1	Н	CM 2000	Level of S	Service		Α			
HCM 2000 Volume to Capacit	y ratio		0.70									
Actuated Cycle Length (s)			47.6	S	um of los	t time (s)			8.0			
Intersection Capacity Utilizatio	n		70.9%			of Service			С			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	35	434	132	1279	51	140	160	359	236	
v/c Ratio	0.51	0.44	0.59	0.90	0.26	0.39	0.53	0.77	0.41	
Control Delay	70.2	27.2	47.1	34.6	39.2	29.3	39.1	42.2	6.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	70.2	27.2	47.1	34.6	39.2	29.3	39.1	42.2	6.2	
Queue Length 50th (ft)	19	98	69	348	26	55	82	183	0	
Queue Length 95th (ft)	#69	160	131	#550	62	117	142	#295	55	
Internal Link Dist (ft)		1935		786		1468		502		
Turn Bay Length (ft)	85		105		165					
Base Capacity (vph)	68	1016	287	1428	362	383	469	507	602	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.51	0.43	0.46	0.90	0.14	0.37	0.34	0.71	0.39	
Intersection Summary										
# 95th percentile volume (avenade es	nacity a	IOUG may	he longe	r					

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	150	1194	75	898	79	366	80	110	142	
v/c Ratio	0.76	0.89	0.73	0.79	0.36	0.94	0.36	0.28	0.31	
Control Delay	61.9	35.2	78.0	31.7	37.9	65.5	37.9	30.7	5.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	61.9	35.2	78.0	31.7	37.9	65.5	37.9	30.7	5.9	
Queue Length 50th (ft)	78	302	40	218	39	177	39	49	0	
Queue Length 95th (ft)	#179	#464	#116	#312	80	#364	81	98	37	
Internal Link Dist (ft)		1935		786		1468		502		
Turn Bay Length (ft)	85		105		165					
Base Capacity (vph)	201	1335	103	1139	360	390	466	501	544	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.75	0.89	0.73	0.79	0.22	0.94	0.17	0.22	0.26	
Intersection Summary										
# 95th percentile volume	en shaanva	nacity di	ielle may	he longe	r					

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Appendix J:

Traffic Signal Warrant Worksheets

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Scenario Report

Scenario: Existing AM

Command:

Volume:
Existing AM

Geometry:
Default Geometry

Impact Fee:
Default Impact Fee
Trip Generation:
Default Trip Generation
Trip Distribution:
Default Trip Distribution
Paths:
Default Path
Routes:
Default Route
Configuration:
Default Configuration

Existing AM Thu Mar 14, 2	2013 19:37:44	Page 2-1				
Signal Warrant	Summary Report					
Intersection	Base Met	Future Met				
	[Del / Vol]	[Del / Vol]				
# 4 Green Valley / Loch	No / No	??? / ???				
# 5 Green Valley / Wilson Connector	No / No	??? / ???				
# 6 Green Valley / Malcom Dixon	No / No	??? / ???				
# 7 Green Valley @ Deer Valley	No / No	??? / ???				
# 12 El Dorado Hills @ Francisco Dr.	Yes / Yes	??? / ???				
# 24 Silva Valley @ Appian Way	No / No	??? / ???				
# 25 Green Valley Rd / Site Dwy RIRO	No / No	??? / ???				
# 26 Green Valley @ Site Dwy Full	No / No	??? / ???				

Thu Mar 14, 2013 19:37:44 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 23 0 6 0 0 0 0 286 13 6 560 0
ApproachDel: 15.4 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=29] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=894] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:37:44 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----||------| Initial Vol: 23 0 6 0 0 0 0 286 13 6 560 0 -----||-----||-----| Major Street Volume: 865 Minor Approach Volume: Minor Approach Volume Threshold: 338 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:37:44

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a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Thu Mar 14, 2013 19:37:44 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 0 8 0 21 6 264 0 0 528 2 ApproachDel: xxxxxx 13.0 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=29] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=829] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:37:44 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #6 Green Valley / Malcom Dixon ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 8 0 21 6 264 0 0 528 2 -----||-----||-----| Major Street Volume: 800 Minor Approach Volume: Minor Approach Volume Threshold: 279 SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:37:45 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 12 0 10 21 0 28 7 245 2 4 491 6 ApproachDel: 14.1 14.5 xxxxxx xxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=22] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=826] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=49] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=826] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based

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signal warrant (such as the 4-hour or 8-hour warrants).

the scope of this software, may yield different results.

| Peak Hour Volume Signal Warrant Report [Urban] | Peak Hour Volume Signal Warrant Report [Urban] | Peak Hour Volume Signal Warrant Report [Urban] | Peak Hour Warrant NOT Met | Peak Hour Warrant NOT

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Thu Mar 14, 2013 19:37:45 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ************************ Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Stop Sign 0 0 1! 0 0 Initial Vol: 361 115 37 125 248 3 2 49 453 45 63 42 ApproachDel: xxxxxx xxxx 108.5 1236.8 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=15.2] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=504] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1543] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=51.5] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=150] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1543] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:37:45 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ************************ Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 361 115 37 125 248 3 2 49 453 45 63 42 -----||-----||-----| Major Street Volume: 889 Minor Approach Volume: 504 Minor Approach Volume Threshold: 325 SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:37:45 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 20 190 41 23 226 19 35 1 83 154 2 62 ApproachDel: xxxxxx xxxxx 12.3 20.4 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.4] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=119] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=856] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=1.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=218] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=856] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based

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| Page 3-14 | Page

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Thu Mar 14, 2013 19:37:46

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #26 Green Valley @ Site Dwy Full

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are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Thu Mar 14, 2013 19:38:09 Page 1-1

Scenario Report

Scenario: Existing PM

Command: Default Command

Volume: Existing PM

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Path

Routes: Default Route

Configuration: Default Configuration

Existing PM	Thu Mar 14, 2013 19:38:12 Page	2-1
S	gnal Warrant Summary Report	
Intersection	Base Met Future M	let
	[Del / Vol] [Del / V	ol]
# 4 Green Valley / Loch	No / No ??? / ?	??
# 5 Green Valley / Wilson	Connector No / No ??? / ?	??
# 6 Green Valley / Malcom	Dixon No / No ??? / ?	??
# 7 Green Valley @ Deer Va	lley No / No ??? / ?	??
# 12 El Dorado Hills @ Fran	cisco Dr. Yes / Yes ??? / ?	??
# 24 Silva Valley @ Appiar	Way No / No ??? / ?	??
# 25 Green Valley Rd / Site	Dwy RIRO No / No ??? / ?	??
# 26 Green Valley @ Site Dv	y Full No / No ??? / ?	??

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Thu Mar 14, 2013 19:38:12 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----| Initial Vol: 21 0 4 0 0 0 0 641 27 4 357 0 ApproachDel: 18.7 xxxxxx xxxxxx xxxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=25] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1054] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches. SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:13 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 21 0 4 0 0 0 0 641 27 4 357 0 -----||-----||-----| Major Street Volume: 1029 Minor Approach Volume: 25 Minor Approach Volume Threshold: 283 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:38:13 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 0 1 0 0 0 0 1 0 0 Initial Vol: 0 0 0 0 0 0 0 645 0 0 361 0
ApproachDel: xxxxxx xxxxxx xxxxx xxxxxx

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:13 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 0 1 0 0 0 0 1 0 0 Initial Vol: 0 0 0 0 0 0 645 0 0 361 0 -----||-----||-----| Major Street Volume: 1006 Minor Approach Volume: 0 Minor Approach Volume Threshold: 218 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

"indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:38:13 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 10 0 14 12 638 0 0 353 5
ApproachDel: xxxxxx 14.3 xxxxxx xxxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=24] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1032] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:13 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #6 Green Valley / Malcom Dixon ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 10 0 14 12 638 0 0 353 5 -----||-----||-----| Major Street Volume: 1008 Minor Approach Volume: 24 Minor Approach Volume Threshold: 217 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

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Thu Mar 14, 2013 19:38:13 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Initial Vol: 8 1 11 7 0 14 45 592 18 16 339 7 ApproachDel: 18.4 15.4 xxxxxx xxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=20] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1058] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=21] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1058] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

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a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Thu Mar 14, 2013 19:38:13 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 8 1 11 7 0 14 45 592 18 16 339 7 -----||-----||-----| Major Street Volume: 1017 Minor Approach Volume: 21 Minor Approach Volume Threshold: 215 SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:13 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ******************* Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 504 281 19 9 156 2 0 41 449 26 35 40 ApproachDel: xxxxxx xxxx 71.8 692.7 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=9.8] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=490] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1562] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=19.4] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=101] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1562] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:14 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ************************ Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 504 281 19 9 156 2 0 41 449 26 35 40 -----||-----||-----| Major Street Volume: 971 Minor Approach Volume: 490 Minor Approach Volume Threshold: 295 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

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Thu Mar 14, 2013 19:38:14 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 70 243 89 47 191 29 17 4 39 56 2 43
ApproachDel: xxxxxx xxxxx 13.1 17.2 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=60] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=830] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.5] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=101] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=830] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

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are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Thu Mar 14, 2013 19:38:14 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #24 Silva Valley @ Appian Way ************************* Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----| Initial Vol: 70 243 89 47 191 29 17 4 39 56 2 43 -----||-----||-----| Major Street Volume: 669 Minor Approach Volume: 101 Minor Approach Volume Threshold: 327 SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:14 Peak Hour Delay Signal Warrant Report ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 0 0 0 0 648 0 0 358 0
ApproachDel: xxxxxx xxxxxx xxxxx xxxxxx

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:15 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 0 0 0 648 0 0 358 0 -----||-----||-----| Major Street Volume: 1006
Minor Approach Volume: 0 Minor Approach Volume Threshold: 218 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:15 Peak Hour Volume Signal Warrant Report [Urban] ************************ Intersection #26 Green Valley @ Site Dwy Full *********************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| -----|----|-----| Major Street Volume: 1006
Minor Approach Volume: 0 Minor Approach Volume Threshold: 372 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:38:29 Page 1-1 Existing+PP AM

Scenario Report

Scenario: Scenario Report
Scenario: Existing+PP AM

Command: Default Command
Volume: Existing+PP AM
Geometry: Default Geometry
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Existing+PP AM Thu Mar 14,		2013 19:38:32		Page 2-1		
	Signal Warrant	Summary	Re			
Intersection		Base Met			Future	Met
		[Del	/	Vol]	[Del /	Vol]
# 4 Green Valley / Loc	h	No	/	No	??? /	???
# 5 Green Valley / Wil	son Connector	No	/	No	??? /	???
# 6 Green Valley / Mal	com Dixon	No	/	No	??? /	???
# 7 Green Valley @ Dee	r Valley	No	/	No	??? /	???
# 12 El Dorado Hills @ :	Francisco Dr.	Yes	/	Yes	??? /	???
# 24 Silva Valley @ Ap	oian Way	No	/	No	??? /	???
# 25 Green Valley Rd /	Site Dwy RIRO	No	/	No	??? /	???
# 26 Green Valley @ Site	e Dwy Full	No	/	No	??? /	???

Thu Mar 14, 2013 19:38:32 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Initial Vol: 23 0 6 0 0 0 0 364 13 6 774 0 ApproachDel: 20.7 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=29] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1186] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:32 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 0 0 0 0 0 370 0 0 780 0
ApproachDel: xxxxxx xxxxxx xxxxx xxxxx ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:38:32 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #5 Green Valley / Wilson Connector *********************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------|
 Control:
 Stop Sign
 Stop Sign
 Uncontrolled
 Uncontrolled

 Lanes:
 0 0 0 0 0 0 0 0 1! 0 0 0 0 1 0 0 0 0 1 0 0
 Initial Vol: 0 0 0 0 0 0 0 370 0 0 780 0 -----||-----||-----| Major Street Volume: 1150 Minor Approach Volume: 0 Minor Approach Volume Threshold: 182 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:38:32 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 0 8 0 21 6 342 0 0 742 2 ApproachDel: xxxxxx 16.4 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=29] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1121] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:32 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #6 Green Valley / Malcom Dixon ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 8 0 21 6 342 0 0 742 2 -----||-----||-----| Major Street Volume: 1092 Minor Approach Volume: 29 Minor Approach Volume Threshold: 196 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:38:32 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 12 0 10 21 0 28 7 309 2 4 514 6
ApproachDel: 15.4 15.6 xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=22] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=913] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=49] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=913] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

are probably more likely to meet one or more of the other volume based

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the scope of this software, may yield different results.

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Thu Mar 14, 2013 19:38:32 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 12 0 10 21 0 28 7 309 2 4 514 6 -----||-----||-----| Major Street Volume: 842 Minor Approach Volume: 49 Minor Approach Volume Threshold: 265 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. *********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Stop Sign 0 0 1! 0 0 Initial Vol: 361 150 37 125 345 3 2 49 453 45 63 42 ApproachDel: xxxxxx xxxx 204.2 2415.6 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=28.6] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=504] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1675] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=100.7] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=150] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1675] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Thu Mar 14, 2013 19:38:32

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:33 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #12 El Dorado Hills @ Francisco Dr. *********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----||------| Initial Vol: 361 150 37 125 345 3 2 49 453 45 63 42 -----||-----||-----| Major Street Volume: 1021 Minor Approach Volume: 504 Minor Approach Volume Threshold: 278 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 20 195 41 23 240 19 35 1 83 154 2 62 ApproachDel: xxxxxx xxxxx 12.5 21.2 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.4] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=119] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=875] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=1.3] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=218] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=875] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Thu Mar 14, 2013 19:38:33

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Thu Mar 14, 2013 19:38:33 Peak Hour Delay Signal Warrant Report ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Initial Vol: 0 0 21 0 0 0 0 311 39 0 744 0 ApproachDel: 10.2 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=21] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1115] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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| Page 3-14 | Page

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Thu Mar 14, 2013 19:38:33 Peak Hour Delay Signal Warrant Report ****************** Intersection #26 Green Valley @ Site Dwy Full ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=2.4] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=257] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1142] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:33 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #26 Green Valley @ Site Dwy Full ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 1 0 0 1 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0 Initial Vol: 214 0 43 0 0 0 0 293 39 23 530 0 -----||-----||-----| Major Street Volume: 885 Minor Approach Volume: Minor Approach Volume Threshold: 427 SIGNAL WARRANT DISCLAIMER

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Existing+PP PM Thu Mar 14, 2013 19:38:54 Page 1-1

Scenario Report

Scenario: Existing+PP PM Command: Default Command
Volume: Existing+PP PM
Geometry: Default Geometry
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Existing+PP PM Thu Mar 14,		2013 19:38:58		Page 2-1	
	Signal Warrant Su	ummary R	eport		
Intersection		Base	Met	Future Met	
		[Del /	Vol]	[Del / Vol]	
# 4 Green Valley / Loch		No /	No	??? / ???	
# 5 Green Valley / Wilso	n Connector	No /	No	??? / ???	
# 6 Green Valley / Malco	m Dixon	No /	No	??? / ???	
# 7 Green Valley @ Deer	Valley	No /	No	??? / ???	
# 12 El Dorado Hills @ Fr	ancisco Dr.	Yes /	Yes	??? / ???	
# 24 Silva Valley @ Appi	an Way	No /	No	??? / ???	
# 25 Green Valley Rd / Si	te Dwy RIRO	No /	No	??? / ???	
# 26 Green Valley @ Site	Dwy Full	No /	No	??? / ???	

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Thu Mar 14, 2013 19:38:58 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ***************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----| Initial Vol: 21 0 4 0 0 0 0 875 27 4 496 0 ApproachDel: 28.9 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=25] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1427] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:38:59 Peak Hour Volume Signal Warrant Report [Urban] ******************* Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Initial Vol: 0 0 0 0 0 0 879 0 0 500 0 -----||-----||-----| Major Street Volume: 1379 Minor Approach Volume: 0 Minor Approach Volume Threshold: 134 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

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are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Thu Mar 14, 2013 19:38:59 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 10 0 14 12 872 0 0 492 5
ApproachDel: xxxxxx 19.4 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=24] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1405] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:38:59 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #6 Green Valley / Malcom Dixon ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 10 0 14 12 872 0 0 492 5 -----||-----||-----| Major Street Volume: 1381 Minor Approach Volume: 24 Minor Approach Volume Threshold: 133 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

"indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:38:59 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 Initial Vol: 8 1 11 7 0 14 45 633 18 16 409 7
ApproachDel: 20.5 17.2 xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=20] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1169] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=21] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1169] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

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Thu Mar 14, 2013 19:38:59 Peak Hour Volume Signal Warrant Report [Urban] ******************* Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 8 1 11 7 0 14 45 633 18 16 409 7 -----||-----||-----| Major Street Volume: 1128 Minor Approach Volume: 21 Minor Approach Volume Threshold: 187 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. *********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Initial Vol: 504 387 19 9 219 2 0 41 449 26 35 40 ApproachDel: xxxxxx xxxx 142.7 1475.9 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=19.4] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=490] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1731] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Thu Mar 14, 2013 19:39:00

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=41.4]

SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=101]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1731]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

with four of more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:39:00 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #12 El Dorado Hills @ Francisco Dr. *********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 504 387 19 9 219 2 0 41 449 26 35 40 -----||-----||-----| Major Street Volume: 1140 Minor Approach Volume: 490 Minor Approach Volume Threshold: 240 SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:39:00 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Initial Vol: 70 258 89 47 200 29 17 4 39 56 2 43 ApproachDel: xxxxxx xxxxx 13.3 17.8 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=60] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=854] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.5] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=101] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=854] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:39:00 Peak Hour Volume Signal Warrant Report [Urban] ******************* Intersection #24 Silva Valley @ Appian Way ************************* Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 70 258 89 47 200 29 17 4 39 56 2 43 -----||-----||-----| Major Street Volume: 693 Minor Approach Volume: 101 Minor Approach Volume Threshold: 317 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Thu Mar 14, 2013 19:39:00 Peak Hour Delay Signal Warrant Report ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ************************ Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 14 0 0 0 0 765 117 0 497 0 ApproachDel: 14.9 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=14] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1393] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:39:00 Peak Hour Volume Signal Warrant Report [Urban] ******************* Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Initial Vol: 0 0 14 0 0 0 0 765 117 0 497 0 -----||-----||-----| Major Street Volume: 1379 Minor Approach Volume: 14 Minor Approach Volume Threshold: 134 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

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are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Thu Mar 14, 2013 19:39:00 Peak Hour Delay Signal Warrant Report ****************** Intersection #26 Green Valley @ Site Dwy Full ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 139 0 28 0 0 0 0 662 117 70 358 0 ApproachDel: 55.8 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=2.6] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=167] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1374] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Thu Mar 14, 2013 19:39:00 Peak Hour Volume Signal Warrant Report [Urban] ************************** Intersection #26 Green Valley @ Site Dwy Full *********************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----||------| -----|----|-----| Major Street Volume: 1207 Minor Approach Volume: 167 Minor Approach Volume Threshold: 293 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Scenario Report

Scenario: EPAP AM

Command: Default Command
Volume: EPAP AM
Geometry: EPAP and on
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

EPAP AM Mon Mar 18, 2	Page 2-1	
Signal Warrant	Summary Report	
Intersection	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
# 4 Green Valley / Loch	No / No	??? / ???
# 5 Green Valley / Wilson Connector	No / No	??? / ???
# 6 Green Valley / Malcom Dixon	No / No	??? / ???
# 7 Green Valley @ Deer Valley	No / No	??? / ???
# 12 El Dorado Hills @ Francisco Dr.	Yes / Yes	??? / ???
# 24 Silva Valley @ Appian Way	Yes / No	??? / ???
# 25 Green Valley Rd / Site Dwy RIRO	No / No	??? / ???
# 26 Green Valley @ Site Dwy Full	No / No	??? / ???

Mon Mar 18, 2013 17:33:53 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Initial Vol: 23 0 6 0 0 0 0 338 13 6 711 0
ApproachDel: 18.8 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=29] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1097] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:33:53 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #4 Green Valley / Loch ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 23 0 6 0 0 0 0 338 13 6 711 0 -----||-----||-----| Major Street Volume: 1068 Minor Approach Volume: Minor Approach Volume Threshold: 272 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:33:53 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 12 0 28 11 333 0 0 689 4
ApproachDel: xxxxxx 16.1 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=40] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1077] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:33:54 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----| Initial Vol: 0 0 0 8 0 21 6 316 0 0 679 2 ApproachDel: xxxxxx 15.2 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=29] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1032] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:33:54 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #6 Green Valley / Malcom Dixon ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 8 0 21 6 316 0 0 679 2 -----||-----||-----| Major Street Volume: 1003 Minor Approach Volume: Minor Approach Volume Threshold: 219 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:33:54 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0 Initial Vol: 12 0 32 21 0 28 7 286 2 11 614 6
ApproachDel: 13.7 17.9 xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=44] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1019] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=49] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1019] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

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a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based

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signal warrant (such as the 4-hour or 8-hour warrants).

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SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:33:54 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. *********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| 0 0 1! 0 0 Initial Vol: 407 146 37 125 355 3 2 49 485 45 64 42 ApproachDel: xxxxxx xxxxx 252.2 4768.4 Approach[eastbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=37.5] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=536] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1760] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=200.0] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=151] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1760] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based

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signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:33:54 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----||------| Initial Vol: 407 146 37 125 355 3 2 49 485 45 64 42 -----||-----||-----| Major Street Volume: 1073 Minor Approach Volume: 536 Minor Approach Volume Threshold: 344 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

"indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:33:55 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 20 236 56 44 285 19 35 1 83 198 2 130 ApproachDel: xxxxxx xxxxx 14.9 49.5 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.5] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=119] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1109] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=4.5] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.

SIGNAL WARRANT DISCLAIMER

Signal Warrant Rule #2: [approach volume=330]

with four or more approaches.

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SUCCEED - Total volume greater than or equal to 800 for intersection

Signal Warrant Rule #3: [approach count=4][total volume=1109]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

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Mon Mar 18, 2013 17:33:55 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #24 Silva Valley @ Appian Way ************************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 20 236 56 44 285 19 35 1 83 198 2 130 -----||-----||-----| Major Street Volume: 660 Minor Approach Volume: 330 Minor Approach Volume Threshold: 330

SIGNAL WARRANT DISCLAIMER

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SIGNAL WARRANT DISCLAIMER

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SIGNAL WARRANT DISCLAIMER

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Initial Vol: 0 0 0 0 0 0 0 313 0 0 653 0

Major Street Volume: 966
Minor Approach Volume Threshold: 389

SIGNAL WARRANT DISCLAIMER
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the scope of this software, may yield different results.

a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond

Mon Mar 18, 2013 17:33:56

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Lanes: 0 1 0 0 1 0 0 1! 0 0 1 0 0 1 0 0 1 0 0 1 0

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #26 Green Valley @ Site Dwy Full

Base Volume Alternative: Peak Hour Warrant NOT Met

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Scenario Report

Scenario: EPAP PM

Command: Default Command

Volume: EPAP PM

Geometry: EPAP and on

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Path

Routes: Default Route

Configuration: Default Configuration

EPAP PM Mon Ma	ar 18, 2013 17:34:26	Page 2-1
Signal V	Warrant Summary Report	
Intersection	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
# 4 Green Valley / Loch	No / No	??? / ???
# 5 Green Valley / Wilson Connec	ctor No / No	??? / ???
# 6 Green Valley / Malcom Dixon	No / No	??? / ???
# 7 Green Valley @ Deer Valley	No / No	??? / ???
# 12 El Dorado Hills @ Francisco	Dr. Yes / Yes	??? / ???
# 24 Silva Valley @ Appian Way	No / No	??? / ???
# 25 Green Valley Rd / Site Dwy F	RIRO No / No	??? / ???
# 26 Green Valley @ Site Dwy Full	No / No	??? / ???

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Mon Mar 18, 2013 17:34:26 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ***************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----| Initial Vol: 21 0 4 0 0 0 810 27 4 453 0 ApproachDel: 25.2 xxxxxx xxxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=25] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1319] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:26 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #4 Green Valley / Loch ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 21 0 4 0 0 0 810 27 4 453 0 -----||-----||-----| Major Street Volume: 1294 Minor Approach Volume: 25 Minor Approach Volume Threshold: 211 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:26 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 8 0 19 31 783 0 0 438 12
ApproachDel: xxxxxx 15.9 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=27] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1291] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:26 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 0 8 0 19 31 783 0 0 438 12 -----||-----||-----| Major Street Volume: 1264 Minor Approach Volume: 27 Minor Approach Volume Threshold: 157 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

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a traffic signal in the future. Intersections that exceed this warrant

are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Mon Mar 18, 2013 17:34:26 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 10 0 14 12 807 0 0 449 5
ApproachDel: xxxxxx 17.6 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=24] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1297] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:27 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0 Initial Vol: 8 1 23 7 0 14 45 730 18 39 416 7
ApproachDel: 21.4 20.4 xxxxxx xxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=32] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1308] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=21] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1308] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:27 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0 Initial Vol: 8 1 23 7 0 14 45 730 18 39 416 7 -----||-----||-----| Major Street Volume: 1255
Minor Approach Volume: 32 Minor Approach Volume Threshold: 207 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:27 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ******************* Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 535 371 19 9 202 2 0 41 497 26 36 40 ApproachDel: xxxxxx xxxxxx 176.1 2042.0 Approach[eastbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=26.3] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=538] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1778] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=57.9] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=102] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1778] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:34:27 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 535 371 19 9 202 2 0 41 497 26 36 40 -----||-----||-----| Major Street Volume: 1138 Minor Approach Volume: 538 Minor Approach Volume Threshold: 318 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

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a traffic signal in the future. Intersections that exceed this warrant

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signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:27 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 70 313 132 115 255 29 17 4 39 82 2 83 ApproachDel: xxxxxx xxxxx 18.3 36.7 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.3] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=60] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1141] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=1.7] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=167] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1141] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

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signal warrant (such as the 4-hour or 8-hour warrants).

Mon Mar 18, 2013 17:34:27 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #24 Silva Valley @ Appian Way ************************ Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----||-------| Initial Vol: 70 313 132 115 255 29 17 4 39 82 2 83 -----||-----||-----| Major Street Volume: 914 Minor Approach Volume: 167 Minor Approach Volume Threshold: 243 SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:34:28 Peak Hour Delay Signal Warrant Report ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 0 0 0 0 778 0 0 435 0
ApproachDel: xxxxxx xxxxxx xxxxx xxxxxx

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:34:28 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 0 0 0 0 778 0 0 435 0 -----||-----||-----| Major Street Volume: 1213
Minor Approach Volume: 0 Minor Approach Volume Threshold: 168 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

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a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:34:28 Peak Hour Volume Signal Warrant Report [Urban] ************************ Intersection #26 Green Valley @ Site Dwy Full *********************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----|------| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| -----|----|-----| Major Street Volume: 1213
Minor Approach Volume: 0 Minor Approach Volume Threshold: 291 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Scenario Report

Scenario: EPAP+PP AM

Command: Default Command
Volume: EPAP+PP AM
Geometry: EPAP and on
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

EPAP+PP AM Mon Mar 18,	2013 17:34:48	Page 2-
Signal Warrant	Summary Report	
Intersection	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
# 4 Green Valley / Loch	No / No	??? / ???
# 5 Green Valley / Wilson Connector	No / No	??? / ???
# 6 Green Valley / Malcom Dixon	No / No	??? / ???
# 7 Green Valley @ Deer Valley	No / No	??? / ???
# 12 El Dorado Hills @ Francisco Dr.	Yes / Yes	??? / ???
# 24 Silva Valley @ Appian Way	Yes / Yes	??? / ???
# 25 Green Valley Rd / Site Dwy RIRO	No / No	??? / ???
# 26 Green Valley @ Site Dwy Full	No / No	??? / ???

Mon Mar 18, 2013 17:34:48 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 23 0 6 0 0 0 0 416 13 6 925 0 ApproachDel: 26.3 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=29] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1389] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:34:49 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 12 0 28 11 411 0 0 903 4
ApproachDel: xxxxxx 21.4 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=40] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1369] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:49 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 8 0 21 6 394 0 0 893 2
ApproachDel: xxxxxx 19.7 xxxxxx xxxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=29] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1324] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:49 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0 Initial Vol: 12 0 32 21 0 28 7 350 2 11 637 6
ApproachDel: 14.8 19.5 xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=44] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1106] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.3] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=49] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1106] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:34:50 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. *********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| 0 0 1! 0 0 Initial Vol: 407 156 37 125 383 3 2 49 485 45 64 42 ApproachDel: xxxxxx xxxxx xxxxx xxxxx 6465.6 Approach[eastbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=OVERFLOW] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=536] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1798] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=271.2] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=151] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1798] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:34:50 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ******************* Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 407 156 37 125 383 3 2 49 485 45 64 42 -----||-----||-----| Major Street Volume: 1111 Minor Approach Volume: 536 Minor Approach Volume Threshold: 329 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:34:50 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ************************* Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 20 266 56 44 368 19 35 1 83 198 2 130 ApproachDel: xxxxxx xxxxx 17.2 87.0 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.6] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=119] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1222] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=8.0]

SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

SIGNAL WARRANT DISCLAIMER

Signal Warrant Rule #2: [approach volume=330]

with four or more approaches.

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SUCCEED - Total volume greater than or equal to 800 for intersection

Signal Warrant Rule #3: [approach count=4][total volume=1222]

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Mon Mar 18, 2013 17:34:50 Peak Hour Delay Signal Warrant Report ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 21 0 0 0 0 352 39 0 867 0 ApproachDel: 10.5 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=21] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1279] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:34:50 Peak Hour Delay Signal Warrant Report ****************** Intersection #26 Green Valley @ Site Dwy Full ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 214 0 43 0 0 0 0 334 39 23 653 0 ApproachDel: 59.1 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=4.2] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=257] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1306] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Scenario Report

Scenario: EPAP+PP PM

Command: Default Command
Volume: EPAP+PP PM
Geometry: EPAP and on
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

EPAP+PP PM	Mon Mar 18, 2	013 17:35	:06	Page 2-1
	Signal Warrant	Summary R	eport	
Intersection		Base	Met	Future Met
		[Del /	Vol]	[Del / Vol]
# 4 Green Valley / Loch		No /	No	??? / ???
# 5 Green Valley / Wils	on Connector	No /	No	??? / ???
# 6 Green Valley / Malo	om Dixon	No /	No	??? / ???
# 7 Green Valley @ Deer	Valley	No /	No	??? / ???
# 12 El Dorado Hills @ F	rancisco Dr.	Yes /	Yes	??? / ???
# 24 Silva Valley @ App	ian Way	No /	No	??? / ???
# 25 Green Valley Rd / S	ite Dwy RIRO	No /	No	??? / ???
# 26 Green Valley @ Site	Dwy Full	Yes /	No	??? / ???

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Mon Mar 18, 2013 17:35:06 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ******************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----| Initial Vol: 21 0 4 0 0 0 0 01044 27 4 592 0 ApproachDel: 41.6 xxxxxx xxxxxx xxxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.3] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=25] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1692] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches. SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:35:06 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #4 Green Valley / Loch ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 21 0 4 0 0 0 0 1044 27 4 592 0 -----||-----||-----| Major Street Volume: 1667 Minor Approach Volume: 25 Minor Approach Volume Threshold: 132 [less than minimum of 150] SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond

a traffic signal in the future. Intersections that exceed this warrant

are probably more likely to meet one or more of the other volume based

the scope of this software, may yield different results.

Mon Mar 18, 2013 17:35:06 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 8 0 19 31 1017 0 0 577 12
ApproachDel: xxxxxx 21.9 xxxxxx xxxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=27] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1664] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:35:06 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 8 0 19 31 1017 0 0 577 12 -----||-----||-----| Major Street Volume: 1637 Minor Approach Volume: 27 Minor Approach Volume Threshold: 88 [less than minimum of 100] SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

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are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 10 0 14 12 1041 0 0 588 5
ApproachDel: xxxxxx 25.4 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=24] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1670] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches. SIGNAL WARRANT DISCLAIMER

Mon Mar 18, 2013 17:35:07

Peak Hour Delay Signal Warrant Report

Intersection #6 Green Valley / Malcom Dixon

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Mon Mar 18, 2013 17:35:07

Major Street Volume: 1646 Minor Approach Volume: 24

Minor Approach Volume Threshold: 86 [less than minimum of 100]

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Mon Mar 18, 2013 17:35:07 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0 Initial Vol: 8 1 23 7 0 14 45 771 18 39 486 7
ApproachDel: 24.1 23.4 xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=32] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1419] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=21] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1419] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:35:07 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0 Initial Vol: 8 1 23 7 0 14 45 771 18 39 486 7 -----||-----||-----| Major Street Volume: 1366 Minor Approach Volume: 32 Minor Approach Volume Threshold: 177

SIGNAL WARRANT DISCLAIMER

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Mon Mar 18, 2013 17:35:07 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ******************* Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 535 401 19 9 220 2 0 41 497 26 36 40 ApproachDel: xxxxxx xxxxx 206.2 2659.9 Approach[eastbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=30.8] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=538] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1826] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=75.4] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=102] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1826] SUCCEED - Total volume greater than or equal to 800 for intersection

SIGNAL WARRANT DISCLAIMER

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with four or more approaches.

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Mon Mar 18, 2013 17:35:07 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 70 404 132 115 309 29 17 4 39 82 2 83 ApproachDel: xxxxxx xxxxx 22.1 59.5 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.4] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=60] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1286] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=2.8] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=167] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1286] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:35:07 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #24 Silva Valley @ Appian Way ************************ Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 70 404 132 115 309 29 17 4 39 82 2 83 -----||-----||-----| Major Street Volume: 1059 Minor Approach Volume: 167 Minor Approach Volume Threshold: 204 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

"indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ************************ Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 14 0 0 0 0 895 117 0 574 0 ApproachDel: 16.9 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=14] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1600] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches. SIGNAL WARRANT DISCLAIMER

Mon Mar 18, 2013 17:35:08

Peak Hour Delay Signal Warrant Report

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Mon Mar 18, 2013 17:35:08 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 14 0 0 0 0 895 117 0 574 0 -----||-----||-----| Major Street Volume: 1586 Minor Approach Volume: 14 Minor Approach Volume Threshold: 96 [less than minimum of 100] SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

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are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Mon Mar 18, 2013 17:35:08 Peak Hour Delay Signal Warrant Report ****************** Intersection #26 Green Valley @ Site Dwy Full ****************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=5.4] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=167] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1581] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Mar 18, 2013 17:35:08 Peak Hour Volume Signal Warrant Report [Urban] ************************ Intersection #26 Green Valley @ Site Dwy Full *********************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----|------| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----||------| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Lanes: 0 1 0 0 1 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0
Initial Vol: 139 0 28 0 0 0 0 792 117 70 435 0 -----|----|-----| Major Street Volume: 1414 Minor Approach Volume: 167 Minor Approach Volume Threshold: 225 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Scenario Report

Scenario: Cumulative AM

Command: Default Command
Volume: Cumulative AM
Geometry: EPAP and on
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Cumulative AM Mon Jun 17,	2013 14:41:26	Page 2-1
Signal Warrant	Summary Report	
Intersection	Base Met	Future Met
	[Del / Vol]	[Del / Vol]
# 4 Green Valley / Loch	No / No	??? / ???
# 5 Green Valley / Wilson Connector	No / No	??? / ???
# 6 Green Valley / Malcom Dixon	No / No	??? / ???
# 7 Green Valley @ Deer Valley	No / No	??? / ???
# 12 El Dorado Hills @ Francisco Dr.	Yes / Yes	333 / 333
# 24 Silva Valley @ Appian Way	Yes / Yes	333 / 333
# 25 Green Valley Rd / Site Dwy RIRO	No / No	333 / 333
# 26 Green Valley @ Site Dwy Full	No / No	??? / ???

Mon Jun 17, 2013 14:41:26 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| ApproachDel: 20.5 xxxxxx xxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=36] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1155] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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| Page 3-2 | Page 3-2 | Page 3-2 | Peak Hour Volume Signal Warrant Report [Urban] | Peak Hour Volume Signal Warrant Report [Urban] | Peak Hour Volume Signal Warrant Report [Urban] | Peak Hour Warrant NoT Met | Peak Hour Warran

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:41:26 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 12 0 28 11 377 0 0 733 4
ApproachDel: xxxxxx 17.2 xxxxxx xxxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=40] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1165] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:41:26 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 12 0 28 11 377 0 0 733 4 -----||-----||-----| Major Street Volume: 1125 Minor Approach Volume: 40 Minor Approach Volume Threshold: 188 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

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a traffic signal in the future. Intersections that exceed this warrant

are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Mon Jun 17, 2013 14:41:26 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 10 0 25 7 341 0 0 685 2
ApproachDel: xxxxxx 15.7 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=35] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1070] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:41:26 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #6 Green Valley / Malcom Dixon ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 10 0 25 7 341 0 0 685 2 -----||-----||-----| Major Street Volume: 1035
Minor Approach Volume: 35 Minor Approach Volume Threshold: 210 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:41:26 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0 Initial Vol: 22 0 32 25 0 43 8 299 4 11 614 7
ApproachDel: 16.6 18.3 xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=54] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1065] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.3] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=68] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1065] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting

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a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 22 0 32 25 0 43 8 299 4 11 614 7 -----||-----||-----| Major Street Volume: 943 Minor Approach Volume: Minor Approach Volume Threshold: 305 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:41:26 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ************************ Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| 0 0 1! 0 0 Initial Vol: 407 146 42 129 355 5 2 51 485 48 66 46 ApproachDel: xxxxxx xxxxx xxxxx 5967.6 Approach[eastbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=OVERFLOW] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=538] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1782] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=265.2] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=160] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1782] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based

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signal warrant (such as the 4-hour or 8-hour warrants).

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This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:41:26 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 31 311 66 44 321 27 43 1 103 198 2 130 ApproachDel: xxxxxx xxxx 18.7 118.3 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.8] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=147] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1277] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=10.8] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=330] SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

SIGNAL WARRANT DISCLAIMER

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SUCCEED - Total volume greater than or equal to 800 for intersection

Signal Warrant Rule #3: [approach count=4][total volume=1277]

with four or more approaches.

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IGNAL WARRANT DISCLAIMER

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Scenario Report

Scenario: Cumulative PM

Command: Default Command

Volume: Cumulative PM

Geometry: EPAP and on

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Path

Routes: Default Route

Configuration: Default Configuration

Cumu	ilative PM Mon Jun 17, 2	2013 14:48:03	Page 2-1
	Signal Warrant	Summary Report	
Inte	ersection	Base Met	Future Met
		[Del / Vol]	[Del / Vol]
# 4	Green Valley / Loch	No / No	??? / ???
# 5	Green Valley / Wilson Connector	No / No	??? / ???
# 6	Green Valley / Malcom Dixon	No / No	??? / ???
# 7	Green Valley @ Deer Valley	No / No	??? / ???
# 12	P El Dorado Hills @ Francisco Dr.	Yes / Yes	??? / ???
# 24	Silva Valley @ Appian Way	No / No	??? / ???
# 25	Green Valley Rd / Site Dwy RIRO	No / No	??? / ???
# 26	Green Valley @ Site Dwy Full	No / No	??? / ???

Mon Jun 17, 2013 14:48:03 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 26 0 5 0 0 0 829 33 5 464 0 ApproachDel: 27.0 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=31] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1362] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #4 Green Valley / Loch ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------|
 Control:
 Stop Sign
 Stop Sign
 Uncontrolled
 Uncontrolled

 Lanes:
 1 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 1 0 0 1 0 0 0

 Initial Vol:
 26 0 5 0 0 0 0 829 33 5 464 0

-----||-----||-----|

Mon Jun 17, 2013 14:48:03

Major Street Volume: 1331
Minor Approach Volume: 31

Minor Approach Volume Threshold: 202

SIGNAL WARRANT DISCLAIMER

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Mon Jun 17, 2013 14:48:03 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 0 8 0 19 31 835 0 0 467 12
ApproachDel: xxxxxx 16.9 xxxxxx xxxxxx xxxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=27] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1372] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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| Peak Hour Volume Signal Warrant Report [Urban] | Peak Hour Volume Signal Warrant Report [Urban] | Peak Hour Volume Signal Warrant Report [Urban] | Peak Hour Warrant NOT Met | Peak Hour Warrant NOT

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Mon Jun 17, 2013 14:48:03 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 12 0 18 15 826 0 0 457 6
ApproachDel: xxxxxx 18.1 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=30] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1334] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Jun 17, 2013 14:48:03 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #6 Green Valley / Malcom Dixon ******************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 12 0 18 15 826 0 0 457 6 -----||-----||-----| Major Street Volume: 1304 Minor Approach Volume: 30 Minor Approach Volume Threshold: 149 SIGNAL WARRANT DISCLAIMER

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Mon Jun 17, 2013 14:48:03 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 18 2 23 10 0 21 51 730 26 39 416 8
ApproachDel: 29.2 21.2 xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.3] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=43] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1344] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=31] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1344] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:48:03 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. ************************ Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 535 371 24 9 202 2 0 41 497 28 36 43 ApproachDel: xxxxxx xxxxx 178.2 2223.0 Approach[eastbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=26.6] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=538] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1788] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=66.1] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=107] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1788] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:48:03 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Stop Sign 0 0 1! 0 0 Initial Vol: 111 398 141 115 271 41 21 5 48 82 2 83 ApproachDel: xxxxxx xxxxx 25.3 78.7 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.5] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=74] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1318] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=3.7] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=167] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1318] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:48:03 Peak Hour Delay Signal Warrant Report ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 0 0 0 0 0 807 0 0 484 0
ApproachDel: xxxxxx xxxxxx xxxxx xxxxxx ______

SIGNAL WARRANT DISCLAIMER

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Mon Jun 17, 2013 14:48:03 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ******************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 0 0 0 0 807 0 0 484 0 -----||-----||-----| Major Street Volume: 1291
Minor Approach Volume: 0 Minor Approach Volume Threshold: 151 SIGNAL WARRANT DISCLAIMER

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SIGNAL WARRANT DISCLAIMER

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Mon Jun 17, 2013 14:48:03

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #26 Green Valley @ Site Dwy Full

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are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Cumulative+PP AM Mon Jun 17, 2013 14:43:08 Page 1-1

Scenario Report

Scenario: Cumulative+PP AM

Command: Default Command
Volume: Cumulative+PP AM
Geometry: EPAP and on
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Cumulative+PP AM	Mon Jun 17, 2	2013 14:43:08	Page 2-1
	Signal Warrant	Summary Report	
Intersection		Base Met	Future Met
		[Del / Vol]	[Del / Vol]
# 4 Green Valley /	Loch	No / No	??? / ???
# 5 Green Valley /	Wilson Connector	No / No	??? / ???
# 6 Green Valley /	Malcom Dixon	No / No	??? / ???
# 7 Green Valley @	Deer Valley	No / No	??? / ???
# 12 El Dorado Hills	s @ Francisco Dr.	Yes / Yes	??? / ???
# 24 Silva Valley @	Appian Way	Yes / Yes	??? / ???
# 25 Green Valley Ro	d / Site Dwy RIRO	No / No	??? / ???
# 26 Green Valley @	Site Dwy Full	Yes / No	??? / ???

Mon Jun 17, 2013 14:43:08 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| ApproachDel: 29.4 xxxxxx xxxxx xxxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.3] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=36] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1447] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Jun 17, 2013 14:43:08 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #4 Green Valley / Loch ********************* Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 29 0 7 0 0 0 0 448 16 7 940 0 -----||-----||-----| Major Street Volume: 1411
Minor Approach Volume: 36 Minor Approach Volume Threshold: 184 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:08 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 12 0 28 11 455 0 0 947 4
ApproachDel: xxxxxx 23.2 xxxxxx xxxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.3] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=40] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1457] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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"indicator" of the likelihood of an unsignalized intersection warranting

a traffic signal in the future. Intersections that exceed this warrant

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jurisdiction. Consideration of the other signal warrants, which is beyond

are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

the scope of this software, may yield different results.

Mon Jun 17, 2013 14:43:08

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Green Valley / Wilson Connector

Major Street Volume: 1417 Minor Approach Volume: 40

Minor Approach Volume Threshold: 126

SIGNAL WARRANT DISCLAIMER

Base Volume Alternative: Peak Hour Warrant NOT Met

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Lanes: 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0

Initial Vol: 0 0 0 12 0 28 11 455 0 0 947 4

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R

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Mon Jun 17, 2013 14:43:08 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 10 0 25 7 419 0 0 899 2 ApproachDel: xxxxxx 20.7 xxxxxx xxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=35] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1362] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Jun 17, 2013 14:43:08 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 10 0 25 7 419 0 0 899 2 -----||-----||-----| Major Street Volume: 1327 Minor Approach Volume: 35 Minor Approach Volume Threshold: 144 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

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Mon Jun 17, 2013 14:43:08 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 22 0 32 25 0 43 8 363 4 11 637 7
ApproachDel: 18.4 19.9 xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.3] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=54] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1152] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.4] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=68] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1152] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:08 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 22 0 32 25 0 43 8 363 4 11 637 7 -----||-----||-----| Major Street Volume: 1030 Minor Approach Volume: Minor Approach Volume Threshold: 275 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

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Mon Jun 17, 2013 14:43:08 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. *********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 407 156 42 129 383 5 2 51 485 48 66 46 ApproachDel: xxxxxx xxxxx xxxxx xxxxx 8545.8 Approach[eastbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=OVERFLOW] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=538] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1820] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=379.8] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=160] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1820] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:08 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ***************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 31 341 66 44 404 27 43 1 103 198 2 130 ApproachDel: xxxxxx xxxx 22.5 201.2 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.9] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=147] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1390] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=18.4] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=330] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1390] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:08 Peak Hour Delay Signal Warrant Report ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 21 0 0 0 0 377 39 0 930 0
ApproachDel: 10.7 xxxxxx xxxxx xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=21] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1367] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:09 Peak Hour Delay Signal Warrant Report ****************** Intersection #26 Green Valley @ Site Dwy Full ****************** Base Volume Alternative: Peak Hour Warrant Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 214 0 43 0 0 0 0 359 39 23 716 0
ApproachDel: 84.3 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=6.0] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=257] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1394] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Cumulative+PP PM Mon Jun 17, 2013 14:43:58 Page 1-1

Scenario Report

Scenario: Cumulative+PP PM

Command: Default Command

Volume: Cumulative+PP PM

Geometry: EPAP and on

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Path

Routes: Default Route

Configuration: Default Configuration

Cumulative+PP PM N	, 2013 14:43:58 Page 2
Sic	unt Summary Report
Intersection	Base Met Future Met
	[Del / Vol] [Del / Vol
# 4 Green Valley / Loch	No / No ??? / ???
5 Green Valley / Wilson (No / No ??? / ???
# 6 Green Valley / Malcom I	No / No ??? / ???
# 7 Green Valley @ Deer Val	No / No ??? / ???
# 12 El Dorado Hills @ Franc	Yes / Yes ??? / ???
# 24 Silva Valley @ Appian	Yes / Yes ??? / ???
# 25 Green Valley Rd / Site	No / No ??? / ???
# 26 Green Valley @ Site Dw	Yes / No ??? / ???

Mon Jun 17, 2013 14:43:58 Peak Hour Delay Signal Warrant Report ****************** Intersection #4 Green Valley / Loch ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 26 0 5 0 0 0 01063 33 5 603 0 ApproachDel: 46.2 xxxxxx xxxxx xxxxxx Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.4] FAIL - Vehicle-hours less than 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=31] FAIL - Approach volume less than 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1735] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Approach: North Bound South Bound East Bound West Bound Movement: L - T - R

Mon Jun 17, 2013 14:43:58

Peak Hour Volume Signal Warrant Report [Urban]

SIGNAL WARRANT DISCLAIMER

Intersection #4 Green Valley / Loch

Base Volume Alternative: Peak Hour Warrant NOT Met

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:58 Peak Hour Delay Signal Warrant Report ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 8 0 19 31 1069 0 0 606 12
ApproachDel: xxxxxx 23.8 xxxxxx xxxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=27] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1745] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Jun 17, 2013 14:43:58 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #5 Green Valley / Wilson Connector ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 8 0 19 31 1069 0 0 606 12 -----||-----||-----| Major Street Volume: 1718 Minor Approach Volume: 27 Minor Approach Volume Threshold: 75 [less than minimum of 100] SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

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are probably more likely to meet one or more of the other volume based

signal warrant (such as the 4-hour or 8-hour warrants).

Mon Jun 17, 2013 14:43:58 Peak Hour Delay Signal Warrant Report ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 Initial Vol: 0 0 0 12 0 18 15 1060 0 0 596 6
ApproachDel: xxxxxx 26.5 xxxxxx xxxxxx Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=30] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1707] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:58 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #6 Green Valley / Malcom Dixon ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 0 12 0 18 15 1060 0 0 596 6 -----||-----||-----| Major Street Volume: 1677 Minor Approach Volume: 30 Minor Approach Volume Threshold: 82 [less than minimum of 100] SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:58 Peak Hour Delay Signal Warrant Report ****************** Intersection #7 Green Valley @ Deer Valley Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 18 2 23 10 0 21 51 771 26 39 486 8
ApproachDel: 34.5 24.5 xxxxxx xxxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.4] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=43] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1455] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[southbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=31] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1455] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #7 Green Valley @ Deer Valley ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Control: Stop Sign Stop Sign Uncontrolled Uncontrolled Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0 1 0 0 1 0 Initial Vol: 18 2 23 10 0 21 51 771 26 39 486 8 -----||-----||-----| Major Street Volume: 1381 Minor Approach Volume: 43 Minor Approach Volume Threshold: 174 SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an

"indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:58 Peak Hour Delay Signal Warrant Report ****************** Intersection #12 El Dorado Hills @ Francisco Dr. *********************** Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| 0 0 1! 0 0 Initial Vol: 535 401 24 9 220 2 0 41 497 28 36 43 ApproachDel: xxxxxx xxxx 208.5 2902.1 Approach[eastbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=31.2] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=538] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1836] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=86.3] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=107] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1836] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Mon Jun 17, 2013 14:43:58 Peak Hour Delay Signal Warrant Report ****************** Intersection #24 Silva Valley @ Appian Way ******************* Base Volume Alternative: Peak Hour Warrant Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Stop Sign 0 0 1! 0 0 Initial Vol: 111 489 141 115 325 41 21 5 48 82 2 83 ApproachDel: xxxxxx xxxxx 33.0 148.8 Approach[eastbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.7] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=74] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1463] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=6.9] SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach. Signal Warrant Rule #2: [approach volume=167] SUCCEED - Approach volume greater than or equal to 100 for one lane approach. Signal Warrant Rule #3: [approach count=4][total volume=1463] SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches. SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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a traffic signal in the future. Intersections that exceed this warrant

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signal warrant (such as the 4-hour or 8-hour warrants).

Mon Jun 17, 2013 14:43:58 Peak Hour Delay Signal Warrant Report ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Initial Vol: 0 0 14 0 0 0 0 924 117 0 623 0
ApproachDel: 17.4 xxxxxx xxxxx xxxxx Approach[northbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=14] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1678] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Mon Jun 17, 2013 14:43:58 Peak Hour Volume Signal Warrant Report [Urban] ****************** Intersection #25 Green Valley Rd / Site Dwy RIRO ****************** Base Volume Alternative: Peak Hour Warrant NOT Met Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----|------| Initial Vol: 0 0 14 0 0 0 0 924 117 0 623 0 -----||-----||-----| Major Street Volume: 1664 Minor Approach Volume: 14 Minor Approach Volume Threshold: 84 [less than minimum of 100] SIGNAL WARRANT DISCLAIMER This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant

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signal warrant (such as the 4-hour or 8-hour warrants).

Mon Jun 17, 2013 14:43:58 Peak Hour Delay Signal Warrant Report ****************** Intersection #26 Green Valley @ Site Dwy Full ****************** Base Volume Alternative: Peak Hour Warrant Met -----|----|-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R -----|----|-----| Approach[northbound][lanes=2][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=7.1] SUCCEED - Vehicle-hours >= 5 for two or more lane approach. Signal Warrant Rule #2: [approach volume=167] SUCCEED - Approach volume >= 150 for two or more lane approach. Signal Warrant Rule #3: [approach count=3][total volume=1659] SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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