



# HEXAGON TRANSPORTATION CONSULTANTS, INC.



## Summit School

### Final Transportation Impact Analysis



Prepared for:

**City of Sunnyvale**

July 2, 2018



### Hexagon Transportation Consultants, Inc.

Hexagon Office: 4 North Second Street, Suite 400

San Jose, CA 95113

Hexagon Job Number: 17OZ05

Phone: 408.971.6100

Client Name: Mr. Ralph Garcia

San Jose • Gilroy • Pleasanton • Phoenix

[www.hextrans.com](http://www.hextrans.com)

Areawide Circulation Plans Corridor Studies Pavement Delineation Plans Traffic Handling Plans Impact Fees Interchange Analysis Parking  
Transportation Planning Traffic Calming Traffic Control Plans Traffic Simulation Traffic Impact Analysis Traffic Signal Design Travel Demand Forecasting



## Table of Contents

---

|                                      |    |
|--------------------------------------|----|
| Executive Summary .....              | vi |
| 1. Introduction .....                | 1  |
| 2. Existing Conditions .....         | 12 |
| 3. Background Conditions .....       | 31 |
| 4. Project Conditions .....          | 38 |
| 5. Other Transportation Issues ..... | 59 |
| 6. Conclusions.....                  | 75 |

## Appendices

|            |  |
|------------|--|
| Appendix A | Traffic Counts                             |
| Appendix B | Volume Summary Tables                      |
| Appendix C | Intersection Level of Service Calculations |
| Appendix D | Signal Warrant Checks                      |

## List of Tables

|   |     |
|---|-----|
| Table ES-1 Project Trip Generation Estimates.....   | vii |
| Table ES-2 Intersection Levels of Service Summary – Signalized Intersections.....               | ix  |
| Table ES-3 Intersection Levels of Service Summary – Unsignalized Intersections.....             | x   |
| Table 1 Signalized Intersection Level of Service Definitions Based on Delay .....               | 7   |
| Table 2 Unsignalized Intersection Level of Service Definitions Based on Delay .....             | 7   |
| Table 3 Freeway Segment Level of Service Definitions .....                                      | 9   |
| Table 4 Existing Intersection Level of Service Summary – Signalized Study Intersections .....   | 20  |
| Table 5 Existing Intersection Level of Service Summary – Unsignalized Study Intersections ..... | 21  |
| Table 6 Existing Freeway Level of Service Summary .....   | 26  |
| Table 7 Existing Freeway Ramp Capacity Analysis Summary.....                                    | 27  |
| Table 8 Background Intersection Level of Service Summary – Signalized Intersections .....       | 36  |
| Table 9 Background Intersection Level of Service Summary – Unsignalized Intersections.....      | 37  |
| Table 10 Project Trip Generation Rates Comparison with ITE Rates .....                          | 39  |
| Table 11 Project Trip Generation Estimates.....   | 40  |
| Table 12 Background plus Project Level of Service Summary – Signalized Intersections .....      | 51  |
| Table 13 Background plus Project Level of Service Summary – Unsignalized Intersections .....    | 52  |
| Table 14 Existing plus Project Level of Service Summary – Signalized Intersections.....         | 53  |
| Table 15 Existing plus Project Level of Service Summary – Unsignalized Intersections.....       | 54  |
| Table 16 Project Conditions Freeway Analysis Summary.....                                       | 55  |
| Table 17 Project Conditions Freeway Ramp Analysis .....   | 56  |
| Table 18 Project Conditions Freeway On-Ramp Queuing Analysis .....                              | 57  |
| Table 19 AM Peak Hour Queuing Analysis .....  | 62  |
| Table 20 PM school Peak Hour Queuing Analysis .....   | 63  |
| Table 21 PM commute Peak Hour Queuing Analysis .....  | 64  |
| Table 22 Transit Travel Time Delay Analysis .....   | 66  |

## List of Figures

|           |   |    |
|-----------|---|----|
| Figure 1  | Site Location and Study Intersections .....                               | 2  |
| Figure 2  | Project Site Plan.....  | 3  |
| Figure 3  | Existing Bicycle Facilities .....   | 15 |
| Figure 4  | Existing Pedestrian Facilities.....                                       | 16 |
| Figure 5  | Existing Transit Services .....   | 18 |
| Figure 6  | Existing Intersection Lane Configurations .....                           | 22 |
| Figure 7  | Existing Traffic Volumes.....   | 24 |
| Figure 8  | Approved project Locations.....   | 32 |
| Figure 9  | Background Traffic Volumes .....  | 33 |
| Figure 10 | Project Trip Distribution – Parent/Student Trips.....                     | 42 |
| Figure 11 | Project Trip Distribution – School Staff and Light Industrial Trips ..... | 43 |
| Figure 12 | Project Trip Assignment .....   | 44 |
| Figure 13 | Background Plus Project Traffic Volumes .....                             | 46 |
| Figure 14 | Existing Plus Project Traffic Volumes.....                                | 48 |
| Figure 15 | Recommended School Safety Improvements.....                               | 73 |

# AUTO TRIP REDUCTION STATEMENT

UPDATED: October 2014



|   |                         |                               |                    |
|---|-------------------------|-------------------------------|--------------------|
| <b>PROJECT INFORMATION</b>  |                         | <i>Relevant TIA Section:</i>  |                    |
| Project Name:   |                         |                               |                    |
| Location:   |                         |                               |                    |
| Description:  |                         |                               |                    |
| Size (net new):   | <i>D.U. Residential</i> | <i>Sq. Ft. Comm.</i>          | <i>Acres (Gr.)</i> |
| Density:  | <i>D.U. / Acre</i>      | <i>Floor Area Ratio (FAR)</i> |                    |
| Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop? |                         |                               |                    |

|                                     |                              |  |                      |
|-------------------------------------|------------------------------|--|----------------------|
| <b>PROJECT AUTO TRIP GENERATION</b> |                              | <i>Relevant TIA Section:</i>                           |                      |
| Auto Trips Generated:               | <i>AM Pk Hr</i>              | <i>PM Pk Hr</i>  | <i>Total Weekday</i> |
| Methodology (check one)             | <input type="checkbox"/> ITE | <input type="checkbox"/> Other (Please describe below) |                      |
|                                     |                              |  |                      |

|  |  |  |                                     |
|--|--|--|-------------------------------------|
| <b>AUTO TRIP REDUCTION APPROACH</b>                                |  | <i>Relevant TIA Section:</i>   |                                     |
| <input type="checkbox"/> Standard<br><i>Complete Table A below</i> | <input type="checkbox"/> Peer/Study-Based<br><i>Complete Table B below</i> | <input type="checkbox"/> Target-Based<br><i>Complete Table C below</i> | <input type="checkbox"/> None Taken |

|   |  |                              |  |
|---|--|------------------------------|--|
| <b>TRIP REDUCTION REQUIREMENTS</b>  |  | <i>Relevant TIA Section:</i> |  |
| Is the project required to meet any trip reduction requirements or targets? |  | If so, specify percent:      |  |
| Reference code or requirement:  |  |                              |  |

## TRIP REDUCTION APPROACHES

| <b>A. STANDARD APPROACH</b>  |                               | <i>Relevant TIA Section:</i>            |                         |       |
|--|-------------------------------|---|-------------------------|-------|
| Type of Reduction<br><i>Specify reduction. See Table 2 in TIA Guidelines</i> | % Reduction<br>from ITE Rates | Total Trips<br>Reduced<br>(AM/PM/Daily) | TOTAL REDUCTION CLAIMED |       |
|  |                               |   | %                       | Trips |
| Transit  |                               |   |                         |       |
| Mixed-Use  |                               |   |                         |       |
| Financial Incentives   |                               |   |                         |       |
| Shuttle  |                               |   |                         |       |

| <b>B. PEER/STUDY-BASED APPROACH</b> |  | <i>Relevant TIA Section:</i> |                         |       |
|-------------------------------------|--|------------------------------|-------------------------|-------|
| Basis of Reduction                  |  |                              | TOTAL REDUCTION CLAIMED |       |
|                                     |  |                              | %                       | Trips |
|                                     |  |                              |                         |       |

Last updated 11/4/2014



| C. TARGET-BASED APPROACH                  |   |                                       | Relevant TIA Section:                   |                         |       |
|---|---|---------------------------------------|---|-------------------------|-------|
| Type of Reduction (check all that apply)  |   |                                       |   | TOTAL REDUCTION CLAIMED |       |
| <input type="checkbox"/> % Trip Reduction | <input type="checkbox"/> % SOV mode share | <input type="checkbox"/> Trip Cap     |   | %                       | Trips |
| Description                               |   |                                       |   |                         |       |
| Time period for reduction                 |   | Peak Hour<br><input type="checkbox"/> | Peak Period<br><input type="checkbox"/> |                         |       |

| OTHER TDM/REDUCTION MEASURES |  |                       |  |
|------------------------------|--|-----------------------|--|
| Bicycle/Pedestrian           |  | Relevant TIA Section: |  |
|                              |  |                       |  |
| Parking Management           |  | Relevant TIA Section: |  |
|                              |  |                       |  |
| Transit                      |  | Relevant TIA Section: |  |
|                              |  |                       |  |
| Site Planning and Design     |  | Relevant TIA Section: |  |
|                              |  |                       |  |
| TDM Program                  |  | Relevant TIA Section: |  |
|                              |  |                       |  |

| IMPLEMENTATION  |  | Relevant TIA Section: |
|---|--|-----------------------|
| Have the project sponsor and Lead Agency agreed to any of the following measures? |  |                       |
| <input type="checkbox"/> Monitoring   |  |                       |
| <input type="checkbox"/> Enforcement  |  |                       |
| <input type="checkbox"/> Data Sharing   |  |                       |

## Executive Summary

---

This report presents the results of the Transportation Impact Analysis (TIA) prepared for the proposed Summit high school located at 824 San Aleso Avenue in Sunnyvale, CA. The project proposes to re-purpose the existing building on-site into a 17-classroom high school with a 400-student capacity and 25 full-time staff. The project would be accessed via the existing driveways on site.

This study was conducted for the purpose of identifying the potential near-term transportation impacts related to the proposed high school project. Because the project is consistent with the recently-adopted Peery Park Specific Plan (PPSP), potential long-term traffic impacts have already been studied in the PPSP TIA report dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc.

### Project Trip Estimates

Summit Public Schools (the project applicant) conducted a traffic survey in January 2016 of its other schools within the Bay Area and found that on average, for every 100 students:

- 67 cars arrive each morning, bringing 85 students to school
  - 7 of these cars are driven by students and remain parked at school
  - The remaining 60 cars are driven by parents/guardians and depart the school after drop off
- 59 cars leave the school in the afternoon, taking 77 students

Using the trip generation rates derived from the applicant survey, the project with 400 students is estimated to generate 508 student trips (268 in and 240 out) during the AM peak hour, 332 student trips (156 in and 176 out) during the PM school peak hour, and 112 student trips (53 in and 59 out) during the PM commute peak hour. As a conservative approach, it is assumed that each staff would generate one inbound trip during the AM peak hour and one outbound trip during the PM commute peak hour. The project with 25 staff is estimated to generate 25 inbound trips during the AM peak hour and 25 outbound trips during the PM commute peak hour. Therefore, the project is estimated to generate a gross 533 trips (293 in and 240 out) during the AM peak hour, 332 trips (156 in and 176 out) during the PM school peak hour, and 137 trips (53 in and 84 out) during the PM commute peak hour.

The existing project site is occupied by a 25,100 s.f. light industrial building. After accounting for the trips generated by the existing building on-site, the project is expected to generate a net 510 trips (273 in and 237 out) during the AM peak hour, 315 trips (154 in and 161 out) during the PM school peak hour, and 113 trips (50 in and 63 out) during the PM commute peak hour (see Table ES-1).

**Table ES-1**  
**Project Trip Generation Estimates**

| Land Use                                   | Size | Unit     | Daily |              |      | AM Peak Hour |            |            | PM School Peak Hour |            |            | PM Commute Peak Hour |       |           |           |            |
|--|------|----------|-------|--------------|------|--------------|------------|------------|---------------------|------------|------------|----------------------|-------|-----------|-----------|------------|
|  |      |          | Rate  | Trips        |      | Rate         | In         | Out        | Total               | Rate       | In         | Out                  | Total | Rate      | In        | Out        |
| <b><i>Proposed Land Use (P)</i></b>        |      |          |       |              |      |              |            |            |                     |            |            |                      |       |           |           |            |
| High School <sup>1</sup>                   | 400  | students |       |              | 1.27 | 268          | 240        | 508        | 0.83                | 156        | 176        | 332                  | 0.28  | 53        | 59        | 112        |
|  | 25   | staff    |       |              | 1.00 | 25           | 0          | 25         | 0.00                | 0          | 0          | 0                    | 1.00  | 0         | 25        | 25         |
|  |      | Total    |       | 2,132        |      | 293          | 240        | 533        |                     | 156        | 176        | 332                  |       | 53        | 84        | 137        |
| <b><i>Existing Land Use (E)</i></b>        |      |          |       |              |      |              |            |            |                     |            |            |                      |       |           |           |            |
| Light Industrial <sup>2</sup>              | 25.1 | ksf      | 6.97  | 175          | 0.92 | 20           | 3          | 23         | 0.68                | 2          | 15         | 17                   | 0.97  | 3         | 21        | 24         |
| <b>Net Project Trip Generation (P - E)</b> |      |          |       | <b>1,957</b> |      | <b>273</b>   | <b>237</b> | <b>510</b> |                     | <b>154</b> | <b>161</b> | <b>315</b>           |       | <b>50</b> | <b>63</b> | <b>113</b> |

**Notes:**

1. Trip generation for the proposed high school is based on survey results conducted at other Summit schools. The survey was conducted by Summit Public Schools, dated January 2016. Daily trip generation is assumed to be 4 times the AM peak hour trip generation, according to the Institute of Transportation Engineers Trip Generation, 9th Edition.

2. Daily, AM and PM commute peak hour trip generations are based on the average trip generation rates published in the Institute of Transportation Engineers Trip Generation, 9th Edition (Land Use Code: 110). PM school peak hour trip generation is estimated based on intersection volumes at the Mathilda Ave/San Aleso Ave intersection and the PM commute peak hour trip generation rates.

## Intersection Level of Service Results

The intersection level of service analysis (see Tables ES-2 and ES-3) concluded that based on City of Sunnyvale intersection impact criteria, the project would not generate a significant intersection impact at any study intersections.

## Freeway Impacts

The results of the CMP freeway analysis show that the freeway segments currently operating at acceptable levels of service would continue to operate at acceptable levels of service under project conditions. For freeway segments currently operating at unacceptable LOS F, the project generated freeway traffic would not exceed 1%, thus the project freeway impacts would be less than significant.

## Freeway Ramp Impacts

The results of the ramp analysis show that the study freeway ramps currently have sufficient capacity to service the existing traffic volumes and the ramps would continue to have sufficient capacity to serve the project traffic volumes under project conditions.

A ramp queuing analysis was conducted for the US 101 southbound on-ramp from northbound Mathilda Avenue, which is metered during the PM peak hour. The analysis found that under project conditions the maximum vehicle queue due to the ramp meter would be contained within the existing ramp storage area.

## PPSP Cumulative Impact Fair Share Contribution

The proposed project is estimated to generate a net 510 AM peak hour trips. Since this is a school project, the PPSP cumulative impact fee would apply only to student/parent trips generated outside of the City, as well as to staff trips. Based on the trip generation and distribution assumptions discussed in Chapter 4, the PPSP cumulative impact fee would apply to 231 net AM peak hour trips. According to the ITE *Trip Generation, 9<sup>th</sup> Edition*, the AM peak hour average trip generation rate for an office building is 1.56 trips per 1,000 s.f. The 231 net peak hour project trips would be equivalent to a 148,077 s.f. office building in terms of peak hour trip generation. Therefore, the project shall pay a fair share contribution for this square footage towards mitigating the PPSP cumulative impacts.

## Other Transportation Issues

Hexagon conducted a site plan review, queuing analysis, pedestrian, bicycle and transit facility analysis, school safety assessment and parking analysis for the proposed project. Our recommendations and potential improvements are listed below.

### Recommendations

- The project applicant should coordinate with City staff to improve the sidewalk on the east side of San Aleso Avenue fronting the project site to the standards outlined in the *Peery Park Specific Plan*.
- The project applicant shall install a yellow high-visibility ladder crosswalk across the south leg of the intersection at San Aleso Avenue and Ahwanee Avenue. The project applicant shall coordinate with City staff to ensure the crosswalk is installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). Currently, the pedestrian curb ramps at either side of the proposed crosswalk are not ADA compliant. The project applicant shall upgrade the curb ramps to meet ADA standards.
- The project applicant shall prohibit on-street parking along the east side of San Aleso Avenue within 20 feet south of the project outbound-only driveway. The project applicant shall install red curb or install “No Stopping Any Time” R26(S) (CA) signs. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards. The project applicant should ensure that there would not be tall vegetation or objects that could block a driver’s view 150 feet down the road as they exit the project site.
- The project applicant shall install yellow high-visibility ladder crosswalks across all legs of the intersection at Mathilda Avenue and San Aleso Avenue. The project applicant shall coordinate with City staff to ensure the crosswalks are installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). The project applicant shall coordinate with City staff to upgrade the pedestrian push buttons for the north leg crosswalk with APS push buttons. The project applicant shall coordinate with City staff to upgrade the curb ramps to meet ADA standards, if necessary.

- Per the most recent edition of CA MUTCD (2014 Edition, Revision 3) at the time of this report, streets with a 25-mph speed limit that are contiguous to a school building shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. Since San Aleso Avenue has a speed limit of 25 mph, the project applicant shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards and City’s standards and guidelines.
- Hexagon recommends the school implement a 5-car drop-off system, where 5 cars drive up to the drop-off zone and drop off at the same time. Staff members need to be stationed at the front end of the drop-off zone and direct the cars to leave the drop-off zone only when all 5 vehicles have finished dropping off. As soon as the vehicles leave, the next set of 5 cars would enter the drop-off zone. This system could allow the drop-off zone to serve approximately 10.5 vehicles per minute. It is recommended that the school dedicate a 125-foot space along the east side of the building as the drop-off zone. To ensure an efficient vehicular flow, it is recommended that the school block off all parking spaces in the east parking lot. Further, it is recommended that the school discourage parents from dropping off students while waiting in queue as oncoming vehicles may not be aware of such student crossings.
- It is recommended that the school discourage parents from parking off-site to pick up students or arriving prior to school dismissal to pick up students. It is recommended that the school prohibit parents from driving into any parking stalls on-site during the pick-up peak period. It is recommended that pick up operations occur exclusively along the east side of the building.
- It is recommended that the school discourage parents from cutting through parking lots of private properties to access the project site.
- It is recommended that the school dedicate staff to direct vehicular traffic at the inbound driveway as well as at the on-site marked walkway to ensure driver awareness of crossing students.
- Prior to final design, the project applicant should ensure that all parking dimensions meet the City requirements.
- The project applicant should ensure that all car lift spaces are adequately sized to accommodate all passenger car types. It is recommended that the car lift operations be prohibited during the main school drop-off and pick-up periods.
- Prior to final design, the project applicant should ensure that adequate garbage truck access and circulation is provided, if garbage trucks need to access the project site.
- It is recommended that the school monitor student activities and prohibit students who do not receive a parking lottery to drive to school, even if they are parking off site.

### Potential Improvements

- Fair Oaks Avenue south of Maude Avenue could be restriped to accommodate a longer northbound left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.
- Wolfe Road south of the Central Expressway ramps could be modified to accommodate a longer northbound left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.

**Table ES-2  
Intersection Level of Service Summary – Signalized Intersections**

| #  | Intersection                           | Peak Hour | Count    | Date | LOS Std. | Existing         |     | Existing plus Project |     |                            |                    | Background       |     | Background plus Project |     |                            |                    |
|----|--|-----------|----------|------|----------|------------------|-----|-----------------------|-----|----------------------------|--------------------|------------------|-----|-------------------------|-----|----------------------------|--------------------|
|    |  |           |          |      |          | Avg. Delay (sec) | LOS | Avg. Delay (sec)      | LOS | Incr. In Crit. Delay (sec) | Incr. In Crit. V/C | Avg. Delay (sec) | LOS | Avg. Delay (sec)        | LOS | Incr. In Crit. Delay (sec) | Incr. In Crit. V/C |
| 1  | Mathilda Ave & SR 237 WB Ramps         | AM*       | 11/00/15 |      | E        | 23.8             | C   | 24.3                  | C   | 0.3                        | 0.010              | 61.4             | E   | 62.6                    | E   | 0.0                        | 0.000              |
|    |  | School PM | 05/16/17 |      |          | 19.8             | B-  | 20.0                  | B-  | 0.2                        | 0.003              | 17.0             | B   | 17.2                    | B   | 0.1                        | 0.003              |
|    |  | PM*       | 11/00/15 |      |          | 20.7             | C+  | 20.8                  | C+  | 0.4                        | 0.000              | 51.2             | D-  | 51.3                    | D-  | 0.5                        | 0.000              |
| 2  | Mathilda Ave & SR 237 EB Ramps         | AM*       | 11/00/15 |      | E        | 21.9             | C+  | 22.2                  | C+  | 0.8                        | 0.010              | 48.0             | D   | 48.3                    | D   | -0.3                       | 0.000              |
|    |  | School PM | 05/16/17 |      |          | 17.7             | B   | 17.7                  | B   | 0.1                        | 0.005              | 25.1             | C   | 25.3                    | C   | 0.8                        | 0.004              |
|    |  | PM*       | 11/00/15 |      |          | 68.2             | E   | 67.2                  | E   | -1.7                       | 0.000              | 53.6             | D-  | 53.8                    | D-  | 0.2                        | 0.010              |
| 3  | Mathilda Ave & Ross Dr                 | AM*       | 11/00/15 |      | E        | 11.9             | B+  | 12.0                  | B+  | 0.4                        | 0.010              | 11.7             | B+  | 12.0                    | B+  | 0.5                        | 0.010              |
|    |  | School PM | 05/16/17 |      |          | 16.7             | B   | 16.9                  | B   | 0.3                        | 0.004              | 14.3             | B   | 14.5                    | B   | 0.2                        | 0.005              |
|    |  | PM*       | 11/00/15 |      |          | 39.1             | D   | 39.1                  | D   | 0.0                        | 0.000              | 54.9             | D-  | 55.0                    | D-  | 0.0                        | 0.000              |
| 4  | Mathilda Ave & Almanor Ave             | AM        | 11/00/15 |      | E        | 24.0             | C   | 29.4                  | C   | 5.5                        | 0.053              | 26.6             | C   | 31.9                    | C   | 6.5                        | 0.053              |
|    |  | School PM | 05/16/17 |      |          | 21.9             | C+  | 20.9                  | C+  | -3.4                       | 0.016              | 30.9             | C   | 30.9                    | C   | -0.1                       | 0.008              |
|    |  | PM        | 11/00/15 |      |          | 27.2             | C   | 27.3                  | C   | 0.0                        | 0.002              | 41.1             | D   | 41.2                    | D   | 0.1                        | 0.002              |
| 5  | Mathilda Ave & San Aleso Ave           | AM        | 11/00/15 |      | E        | 9.6              | A   | 14.2                  | B   | 7.8                        | 0.064              | 14.0             | B   | 18.6                    | B-  | 7.9                        | 0.063              |
|    |  | School PM | 05/16/17 |      |          | 9.8              | A   | 10.0                  | B+  | 0.0                        | 0.007              | 9.8              | A   | 10.2                    | B+  | 0.1                        | 0.006              |
|    |  | PM        | 11/00/15 |      |          | 12.9             | B   | 13.5                  | B   | 0.0                        | 0.002              | 16.3             | B   | 17.9                    | B   | 15.0                       | 0.040              |
| 6  | Mathilda Ave & Maude Ave               | AM        | 11/00/15 |      | E        | 41.6             | D   | 43.2                  | D   | 2.2                        | 0.044              | 50.1             | D   | 54.0                    | D-  | 4.1                        | 0.030              |
|    |  | School PM | 05/16/17 |      |          | 30.2             | C   | 29.6                  | C   | -0.7                       | -0.001             | 34.0             | C-  | 34.1                    | C-  | 0.0                        | 0.006              |
|    |  | PM        | 11/00/15 |      |          | 44.9             | D   | 45.0                  | D   | 6.3                        | 0.011              | 63.1             | E   | 63.5                    | E   | 0.5                        | 0.003              |
| 7  | Mathilda Ave & Indio Ave               | AM        | 11/00/15 |      | E        | 29.6             | C   | 31.2                  | C   | 2.1                        | 0.033              | 41.6             | D   | 45.6                    | D   | 5.7                        | 0.032              |
|    |  | School PM | 05/16/17 |      |          | 10.4             | B+  | 10.4                  | B+  | 0.0                        | 0.008              | 10.6             | B+  | 10.7                    | B+  | 0.1                        | 0.009              |
|    |  | PM        | 11/00/15 |      |          | 23.7             | C   | 23.7                  | C   | 0.0                        | 0.003              | 26.2             | C   | 26.4                    | C   | 0.2                        | 0.003              |
| 8  | Mathilda Ave & California Ave          | AM        | 11/00/15 |      | E        | 25.4             | C   | 25.2                  | C   | -0.2                       | 0.007              | 30.4             | C   | 30.3                    | C   | 0.1                        | 0.008              |
|    |  | School PM | 05/16/17 |      |          | 17.6             | B   | 17.4                  | B   | -0.1                       | 0.005              | 19.1             | B-  | 19.0                    | B-  | -0.1                       | 0.005              |
|    |  | PM        | 11/00/15 |      |          | 28.5             | C   | 28.4                  | C   | 0.0                        | 0.001              | 35.7             | D+  | 35.7                    | D+  | 0.2                        | 0.002              |
| 12 | Sunnyvale Ave/Borregas Ave & Maude Ave | AM        | 05/16/17 |      | D        | 41.1             | D   | 40.8                  | D   | -0.5                       | 0.050              | 40.7             | D   | 40.7                    | D   | 0.0                        | 0.050              |
|    |  | School PM | 05/16/17 |      |          | 32.7             | C-  | 32.9                  | C-  | 0.4                        | 0.007              | 32.4             | C-  | 32.6                    | C-  | 0.4                        | 0.006              |
|    |  | PM        | 05/16/17 |      |          | 29.3             | C   | 29.4                  | C   | 0.2                        | 0.003              | 29.8             | C   | 29.9                    | C   | 0.2                        | 0.003              |
| 16 | Fair Oaks Ave & Weddell Dr             | AM        | 04/04/17 |      | D        | 17.2             | B   | 17.2                  | B   | 0.0                        | 0.006              | 20.4             | C+  | 20.3                    | C+  | 0.1                        | 0.003              |
|    |  | School PM | 12/02/15 |      |          | 20.0             | C+  | 19.9                  | B-  | 0.0                        | 0.003              | 19.5             | B-  | 19.4                    | B-  | 0.0                        | 0.003              |
|    |  | PM        | 04/04/17 |      |          | 16.5             | B   | 16.5                  | B   | 0.1                        | 0.001              | 18.2             | B-  | 18.2                    | B-  | 0.1                        | 0.001              |
| 17 | Fair Oaks Ave & US 101 NB Ramps        | AM        | 04/04/17 |      | E        | 23.4             | C   | 23.3                  | C   | 0.0                        | 0.000              | 37.8             | D+  | 37.7                    | D+  | 0.0                        | 0.000              |
|    |  | School PM | 12/02/15 |      |          | 20.0             | C+  | 19.9                  | B-  | 0.0                        | 0.003              | 22.2             | C+  | 22.1                    | C+  | 0.1                        | 0.002              |
|    |  | PM        | 04/04/17 |      |          | 27.4             | C   | 27.4                  | C   | 0.0                        | 0.001              | 46.3             | D   | 46.4                    | D   | 0.3                        | 0.000              |
| 18 | Fair Oaks Ave & Ahwanee Ave            | AM        | 04/04/17 |      | D        | 22.3             | C+  | 23.3                  | C   | 1.2                        | 0.014              | 21.7             | C+  | 22.8                    | C+  | 1.4                        | 0.015              |
|    |  | School PM | 12/02/15 |      |          | 18.2             | B-  | 19.2                  | B-  | 0.8                        | 0.012              | 17.4             | B   | 18.4                    | B-  | 0.8                        | 0.012              |
|    |  | PM        | 04/04/17 |      |          | 13.9             | B   | 14.4                  | B   | 0.4                        | 0.005              | 14.8             | B   | 15.2                    | B   | 0.4                        | 0.004              |
| 19 | Fair Oaks Ave & Duane Ave              | AM        | 04/04/17 |      | D        | 34.6             | C-  | 34.7                  | C-  | 0.8                        | 0.009              | 33.6             | C-  | 33.9                    | C-  | 0.9                        | 0.009              |
|    |  | School PM | 12/02/15 |      |          | 30.5             | C   | 30.7                  | C   | 0.4                        | 0.006              | 29.9             | C   | 30.2                    | C   | 0.5                        | 0.006              |
|    |  | PM        | 04/04/17 |      |          | 31.4             | C   | 31.6                  | C   | 0.2                        | 0.005              | 34.5             | C-  | 34.7                    | C-  | 0.2                        | 0.002              |
| 20 | Fair Oaks Ave & Wolfe Rd               | AM        | 04/04/17 |      | D        | 16.0             | B   | 15.8                  | B   | 0.0                        | 0.000              | 17.3             | B   | 17.1                    | B   | 0.0                        | 0.000              |
|    |  | School PM | 12/02/15 |      |          | 13.4             | B   | 13.1                  | B   | 0.2                        | 0.004              | 14.0             | B   | 13.8                    | B   | 0.1                        | 0.004              |
|    |  | PM        | 04/04/17 |      |          | 14.1             | B   | 14.1                  | B   | 0.0                        | 0.002              | 15.6             | B   | 15.5                    | B   | 0.0                        | 0.002              |
| 21 | Fair Oaks Ave & Maude Ave              | AM        | 05/16/17 |      | D        | 27.1             | C   | 27.6                  | C   | 0.6                        | 0.033              | 32.6             | C-  | 33.1                    | C-  | 0.9                        | 0.042              |
|    |  | School PM | 12/02/15 |      |          | 29.0             | C   | 29.3                  | C   | 0.7                        | 0.021              | 29.1             | C   | 29.5                    | C   | 0.8                        | 0.022              |
|    |  | PM        | 05/16/17 |      |          | 31.2             | C   | 31.4                  | C   | 0.3                        | 0.006              | 32.6             | C-  | 32.9                    | C-  | 0.4                        | 0.007              |
| 23 | Wolfe Rd & Arques Ave                  | AM        | 04/04/17 |      | D        | 40.5             | D   | 40.3                  | D   | -0.1                       | 0.000              | 41.7             | D   | 41.8                    | D   | 0.2                        | -0.009             |
|    |  | School PM | 12/02/15 |      |          | 39.3             | D   | 39.1                  | D   | 0.0                        | 0.000              | 38.8             | D+  | 38.6                    | D+  | -0.1                       | 0.002              |
|    |  | PM        | 04/04/17 |      |          | 40.4             | D   | 40.3                  | D   | -0.1                       | 0.001              | 41.0             | D   | 40.9                    | D   | -0.1                       | 0.001              |
| 24 | Wolfe Rd & Central Expwy Ramps         | AM        | 04/04/17 |      | E        | 37.9             | D+  | 36.7                  | D+  | 16.7                       | 0.071              | 39.6             | D   | 40.4                    | D   | 1.0                        | 0.018              |
|    |  | School PM | 12/02/15 |      |          | 41.3             | D   | 41.7                  | D   | 0.1                        | 0.011              | 42.8             | D   | 41.0                    | D   | -3.4                       | 0.010              |
|    |  | PM        | 04/04/17 |      |          | 62.8             | E   | 63.1                  | E   | 0.4                        | 0.004              | 73.9             | E   | 74.5                    | E   | 0.7                        | 0.004              |

**Notes:**

\* Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

**Table ES-3**  
**Intersection Level of Service Summary – Unsignalized Intersections**

| #  | Intersection                | Control           | Peak Hour | Count Date | Existing    |          |                                 | Existing plus Project |              |              |                                 | Background  |               |                                 | Background plus Project |               |              |                                 |              |
|----|-----------------------------|-------------------|-----------|------------|-------------|----------|---------------------------------|-----------------------|--------------|--------------|---------------------------------|-------------|---------------|---------------------------------|-------------------------|---------------|--------------|---------------------------------|--------------|
|    |                             |                   |           |            | Delay (sec) | LOS      | Signal Warrant Met <sup>3</sup> | Delay (sec)           | Incr. in LOS | Incr. in V/C | Signal Warrant Met <sup>3</sup> | Delay (sec) | LOS           | Signal Warrant Met <sup>3</sup> | Delay (sec)             | Incr. in LOS  | Incr. in V/C | Signal Warrant Met <sup>3</sup> |              |
| 9  | San Aleso Ave & Ahwanee Ave | Side-Street       | AM        | 05/16/17   | 9.7         | A        | -                               | 14.0                  | B            | 4.3          | 0.356                           | -           | 9.7           | A                               | -                       | 14.7          | B            | 5.0                             | 0.370        |
|    |                             | Stop <sup>1</sup> | School PM | 05/16/17   | 9.3         | A        | -                               | 11.0                  | B            | 1.7          | 0.205                           | -           | 9.4           | A                               | -                       | 11.2          | B            | 1.8                             | 0.209        |
|    |                             |                   | PM        | 05/16/17   | 10.5        | B        | -                               | 11.7                  | B            | 1.2          | 0.099                           | -           | 10.7          | B                               | -                       | 12.0          | B            | 1.3                             | 0.103        |
| 10 | Borregas Ave & Ahwanee Ave  | All-Way           | AM        | 05/16/17   | 9.0         | A        | -                               | 9.4                   | A            | 0.4          | 0.015                           | -           | 9.2           | A                               | -                       | 9.6           | A            | 0.4                             | 0.016        |
|    |                             | Stop <sup>2</sup> | School PM | 05/16/17   | 7.9         | A        | -                               | 8.2                   | A            | 0.3          | 0.078                           | -           | 7.9           | A                               | -                       | 8.3           | A            | 0.4                             | 0.078        |
|    |                             |                   | PM        | 05/16/17   | 9.2         | A        | -                               | 9.4                   | A            | 0.2          | 0.028                           | -           | 9.4           | A                               | -                       | 9.6           | A            | 0.2                             | 0.028        |
| 11 | Borregas Ave & Duane Ave    | Side-Street       | AM        | 05/16/17   | 11.6        | B        | -                               | 11.9                  | B            | 0.3          | 0.008                           | -           | 11.7          | B                               | -                       | 12.0          | B            | 0.3                             | 0.008        |
|    |                             | Stop <sup>1</sup> | School PM | 05/16/17   | 10.7        | B        | -                               | 10.9                  | B            | 0.2          | 0.002                           | -           | 10.9          | B                               | -                       | 11.1          | B            | 0.2                             | 0.002        |
|    |                             |                   | PM        | 05/16/17   | 12.0        | B        | -                               | 12.1                  | B            | 0.1          | 0.001                           | -           | 12.2          | B                               | -                       | 12.3          | B            | 0.1                             | 0.001        |
| 13 | Morse Ave & Ahwanee Ave     | Side-Street       | AM        | 05/16/17   | 18.5        | C        | -                               | 21.9                  | C            | 3.4          | 0.058                           | -           | 19.3          | C                               | -                       | 23.0          | C            | 3.7                             | 0.060        |
|    |                             | Stop <sup>1</sup> | School PM | 05/16/17   | 11.3        | B        | -                               | 11.9                  | B            | 0.6          | 0.017                           | -           | 11.4          | B                               | -                       | 12.1          | B            | 0.7                             | 0.018        |
|    |                             |                   | PM        | 05/16/17   | 11.7        | B        | -                               | 11.9                  | B            | 0.2          | 0.003                           | -           | 11.8          | B                               | -                       | 12.1          | B            | 0.3                             | 0.004        |
| 14 | Morse Ave & Duane Ave       | All-Way           | AM        | 05/16/17   | 10.4        | B        | -                               | 10.5                  | B            | 0.1          | 0.007                           | -           | 10.5          | B                               | -                       | 10.7          | B            | 0.2                             | 0.007        |
|    |                             | Stop <sup>2</sup> | School PM | 05/16/17   | 8.8         | A        | -                               | 8.9                   | A            | 0.1          | 0.004                           | -           | 9.0           | A                               | -                       | 9.1           | A            | 0.1                             | 0.005        |
|    |                             |                   | PM        | 05/16/17   | 8.6         | A        | -                               | 8.6                   | A            | 0.0          | 0.002                           | -           | 8.8           | A                               | -                       | 8.8           | A            | 0.0                             | 0.002        |
| 15 | Morse Ave & Maude Ave       | Side-Street       | AM        | 05/16/17   | 14.5        | B        | -                               | 15.7                  | C            | 1.2          | 0.035                           | -           | 15.8          | C                               | -                       | 17.3          | C            | 1.5                             | 0.038        |
|    |                             | Stop <sup>1</sup> | School PM | 05/16/17   | 13.2        | B        | -                               | 13.7                  | B            | 0.5          | 0.014                           | -           | 14.2          | B                               | -                       | 14.6          | B            | 0.4                             | 0.015        |
|    |                             |                   | PM        | 05/16/17   | 16.2        | C        | -                               | 16.4                  | C            | 0.2          | 0.000                           | -           | 17.8          | C                               | -                       | 17.9          | C            | 0.1                             | 0.001        |
| 22 | Wolfe Rd & Maude Ave        | Side-Street       | AM        | 05/25/17   | 26.5        | D        | No                              | 28.8                  | D            | 2.3          | 0.008                           | No          | <b>50.3</b>   | <b>F</b>                        | <b>No</b>               | <b>56.1</b>   | <b>F</b>     | <b>5.8</b>                      | <b>0.016</b> |
|    |                             | Stop <sup>1</sup> | School PM | 05/25/17   | 20.4        | C        | -                               | 21.4                  | C            | 1.0          | 0.003                           | -           | 25.4          | D                               | -                       | 26.7          | C            | 1.3                             | 0.004        |
|    |                             |                   | PM        | 05/25/17   | <b>50.4</b> | <b>F</b> | <b>Yes</b>                      | <b>51.7</b>           | <b>F</b>     | <b>1.3</b>   | <b>0.003</b>                    | <b>Yes</b>  | <b>&gt;60</b> | <b>F</b>                        | <b>Yes</b>              | <b>&gt;60</b> | <b>F</b>     | <b>2.6</b>                      | <b>0.003</b> |

**Notes:**

- Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
- Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections represent intersection average.
- The CAMUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

**BOLD** indicates unacceptable level of service

# 1. Introduction

---

This report presents the results of the Transportation Impact Analysis (TIA) prepared for the proposed Summit high school located at 824 San Aleso Avenue in Sunnyvale, CA (see Figure 1). The project proposes to re-purpose the existing building on-site into a 17-classroom high school with a 400-student capacity and 25 full-time staff. The project would be accessed via the existing driveways on site (see Figure 2).

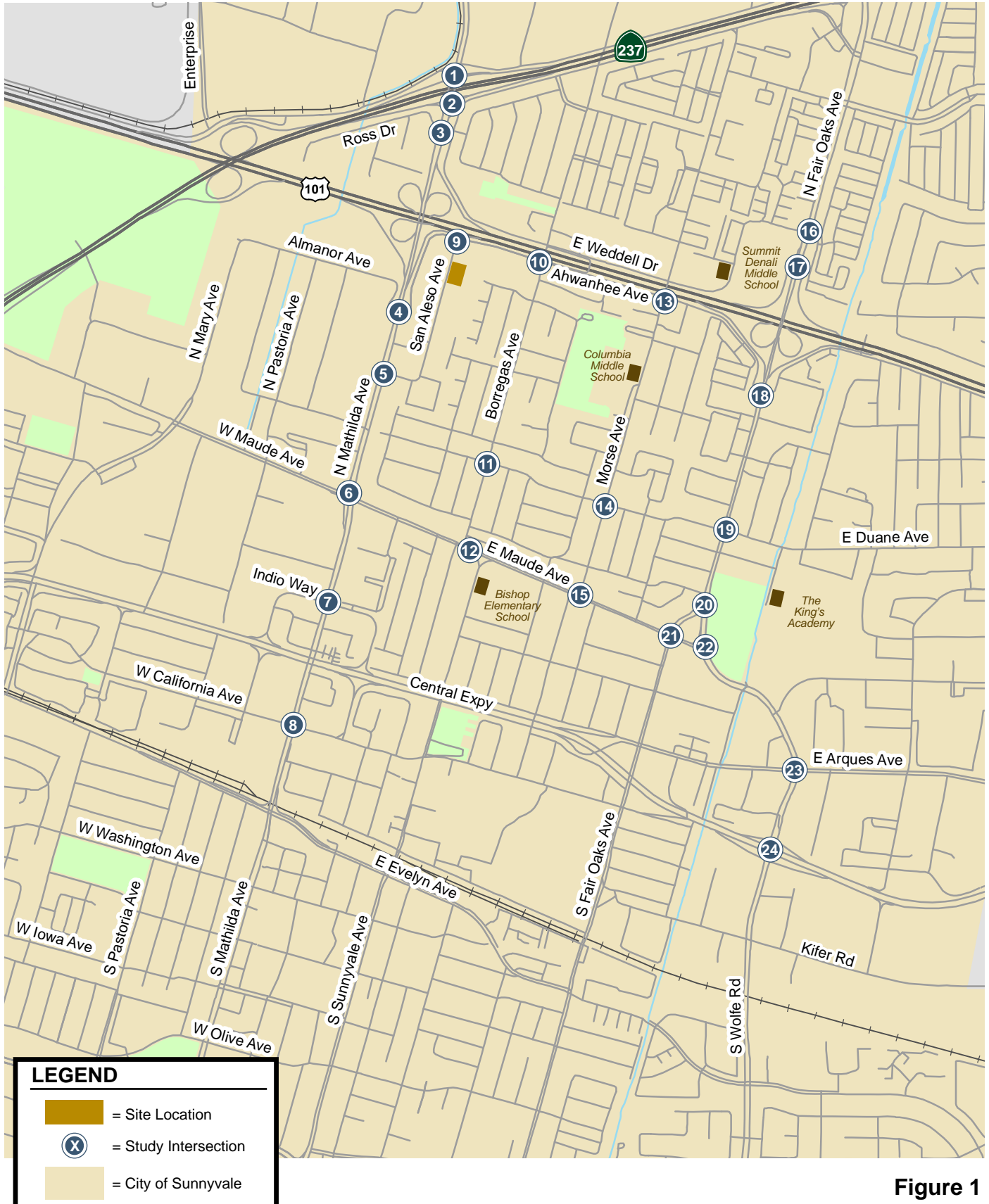
## Scope of Study

This study was conducted for the purpose of identifying the potential near-term transportation impacts related to the proposed high school project. Because the project is consistent with the recently-adopted Peery Park Specific Plan (PPSP), potential long-term traffic impacts have already been studied in the PPSP TIA report dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc.

Since the project is estimated to generate more than 100 peak hour trips, the potential impacts of the project were evaluated following the standards and methodologies set forth by the City of Sunnyvale and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP). The traffic study included an analysis of AM (7-9 AM), PM school (2-4 PM), and PM commute (4-6 PM) peak hour traffic conditions for 24 intersections in the vicinity of the project site. One of the study intersections is a CMP intersection, and seven of the study intersections are unsignalized intersections. The study intersections were selected to include locations where the proposed project is expected to generate 10 or more peak-hour trips per lane.

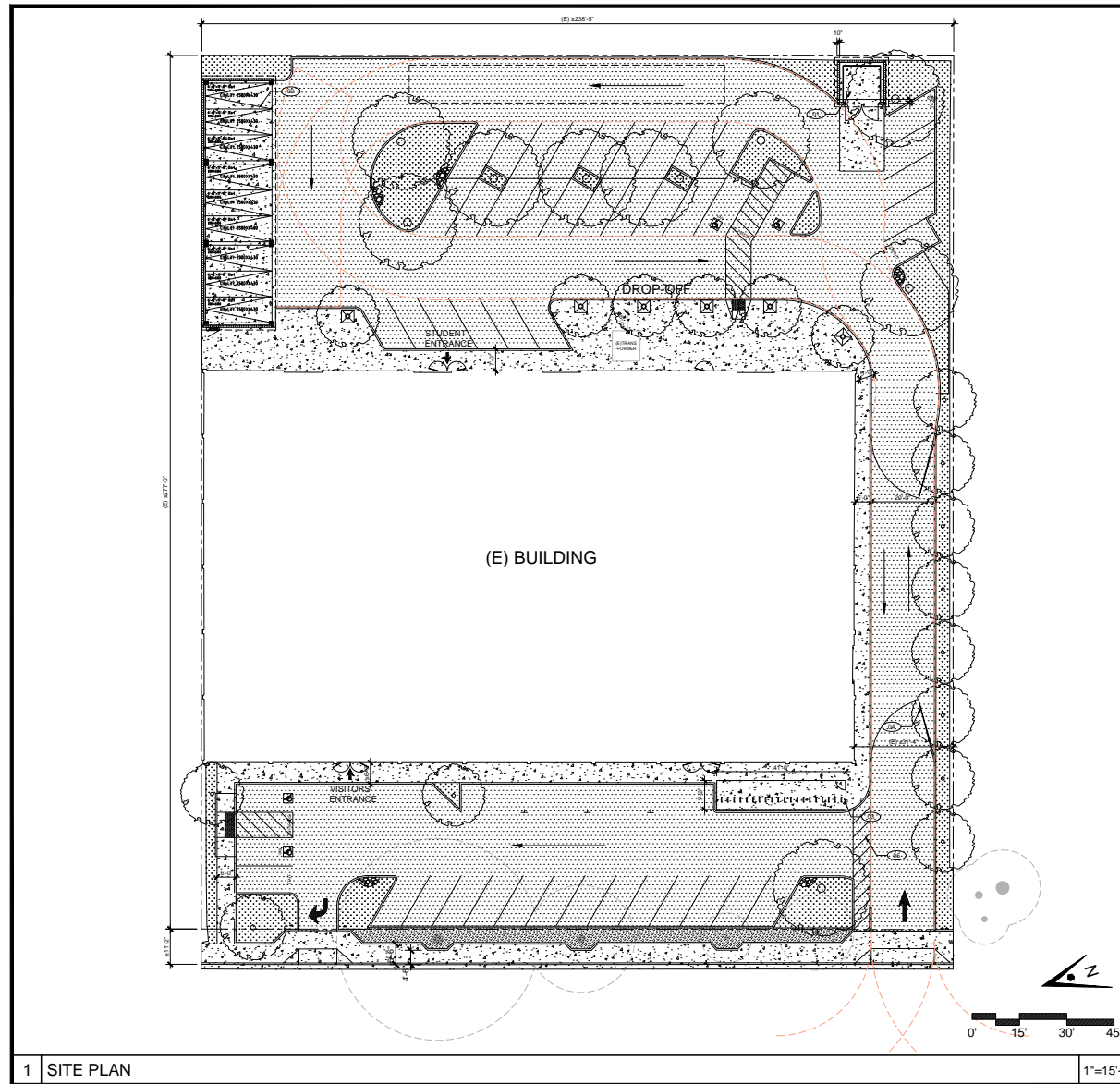
The Santa Clara County VTA CMP guidelines require that freeway segments be evaluated to determine the impact of added traffic for projects that generate trips equal to or greater than one percent of the freeway segment's capacity. Within the project vicinity, six freeway segments and eight nearby freeway ramps were analyzed following the CMP guidelines.





**Figure 1**  
Site Location and Study Intersections

824 San Aleso Ave. Summit High School



PROJECT DATA

| PROJECT DATA                |                    |                            |             |
|-----------------------------|--------------------|----------------------------|-------------|
| ITEM                        | ALLOWABLE / REQ'D. | EXISTING                   | PROPOSED    |
| ZONING                      |                    | PP-NEIGHBORHOOD TRANSITION |             |
| LOT SIZE                    |                    | 1.52 ACRE                  | 1.52 ACRE   |
| LOT COVERAGE (40%)          |                    | 25,416 S.F.                | 27,383 S.F. |
| LOT IMPERVIOUS SURFACE AREA |                    | 40,470 S.F.                | 36,425 S.F. |
| LOT PERVIOUS SURFACE AREA   |                    | 0 S.F.                     | 4,045 S.F.  |
| F.A.R.                      | .35                | .41                        | .41         |
| BUILDING AREA (GROSS)       | 23,174 S.F.        | 26,815 S.F.                | 25,070 S.F. |
| BUILDING AREA (NET)         | -                  | 21,751 S.F.                | 21,751 S.F. |
| CAR PARKING                 | 84*                | 50                         | 76          |
| BICYCLE PARKING             | 5                  | 0                          | 40          |

\* PER CITY OF SUNNYVALE PARKING REQUIREMENTS, PARKING REQ'D. FOR HIGH SCHOOL = 0.26 STUDENT NUMBER OF STUDENTS PER GRADE x 150.  
 TOTAL NUMBER OF STUDENTS OF SUNNYVALE = 800 (5TH, 11TH, AND 12TH GRADES)  
 ASSUMED PARKING REQUIREMENT FOR 8TH GRADE = 3 CLASSROOM (AS REQ'D. FOR K-8 GRADES)

**ARTIK**  
 ART & ARCHITECTURE  
 394-A Umbarger Rd  
 San Jose, CA 95111  
 Phone 408.224.9890  
 Fax 408.224.9891  
 www.Artika3.com

Legend

- CONCRETE, REFER TO GRADING PLAN.
- AC PAVING, REFER TO GRADING PLAN.
- PLANTING, REFER TO PLANTING PLAN.
- COBBLE STONES, REFER TO SITE STORM WATER CONTROL PLAN.
- ASSUMED PROPERTY LINE

KEYNOTES

- (1) SOLID WASTE/RECYCLING ENCLOSURE 15'-4" X 14'-0" WITH (2) 30-GD GARBAGE BIN, (1) 30-YD RECYCLING BIN, AND (1) PAPER RECYCLING CART.
- (2) CITY/IFT THREE LEVEL 'PUZZLE' AUTOMATED PARKING LIFT.
- (3) BICYCLE CORRAL 41'-0" X 9'-2" WITH 'WELLE SERIES' BICYCLE RACKS (40) BICYCLE CAPACITY TOTAL.
- (4) 20'-0" WIDE SWING GATES, WITH KNOX BOX
- (5) 5'-0" WIDE PEDESTRIAN CROSS-WALK

Key Plan

Project Title

**SUMMIT SAN ALESO**

824 SAN ALESO AVENUE  
 SUNNYVALE, CA 94085

SUMMIT PUBLIC SCHOOLS

|     |                       |      |
|-----|-----------------------|------|
| No. | Revisions/Submissions | Date |
|     |                       |      |
|     |                       |      |
|     |                       |      |

Drawing Title

**PROPOSED SITE PLAN**

|                            |                |
|----------------------------|----------------|
| Regulatory Agency Approval | Architect Seal |
|                            |                |
| File Number                | Drawing No.    |
| Application Number         |                |
| Project No.                | <b>A1.11</b>   |
| Date                       | XX.XX.XX       |

1 SITE PLAN

1"=15'-0"

Figure 2  
 Project Site Plan



The study intersections, freeway segments and freeway ramps are listed below.

### Study Intersections

1. Mathilda Avenue & SR 237 Westbound Ramps
2. Mathilda Avenue & SR 237 Eastbound Ramps
3. Mathilda Avenue & Ross Drive
4. Mathilda Avenue & Almanor Avenue
5. Mathilda Avenue & San Aleso Avenue
6. Mathilda Avenue & Maude Avenue (CMP)
7. Mathilda Avenue & Indio Avenue
8. Mathilda Avenue & California Avenue
9. San Aleso Avenue & Ahwanee Avenue (unsignalized)
10. Borregas Avenue & Ahwanee Avenue (unsignalized)
11. Borregas Avenue & Duane Avenue (unsignalized)
12. Sunnyvale Avenue/Borregas Avenue & Maude Avenue
13. Morse Avenue & Ahwanee Avenue (unsignalized)
14. Morse Avenue & Duane Avenue (unsignalized)
15. Morse Avenue & Maude Avenue (unsignalized)
16. Fair Oaks Avenue & Weddell Drive
17. Fair Oaks Avenue & US 101 Northbound Ramps
18. Fair Oaks Avenue & Ahwanee Avenue
19. Fair Oaks Avenue & Duane Avenue
20. Fair Oaks Avenue & Wolfe Road
21. Fair Oaks Avenue & Maude Avenue
22. Wolfe Road & Maude Avenue (unsignalized)
23. Wolfe Road & Arques Avenue
24. Wolfe Road & Central Expressway Ramps

### Study Freeway Segments

1. US 101, between Lawrence Expressway & Fair Oaks Avenue
2. US 101, between Fair Oaks Avenue & Mathilda Avenue
3. US 101, between Mathilda Avenue & SR 237
4. SR 237, between Lawrence Expressway & Fair Oaks Avenue
5. SR 237, between Fair Oaks Avenue & Mathilda Avenue
6. SR 237, between Mathilda Avenue & US 101

### Study Freeway Ramps

1. US 101 & Mathilda Avenue, southbound on-ramp from northbound Mathilda Avenue
2. US 101 & Mathilda Avenue, northbound on-ramp from northbound Mathilda Avenue
3. US 101 & Mathilda Avenue, southbound off-ramp
4. US 101 & Mathilda Avenue, northbound off-ramp to southbound Mathilda Avenue
5. SR 237 & Mathilda Avenue, eastbound on-ramp
6. SR 237 & Mathilda Avenue, westbound on-ramp
7. SR 237 & Mathilda Avenue, eastbound off-ramp
8. SR 237 & Mathilda Avenue, westbound off-ramp

Traffic conditions at the study intersections, freeway segments and freeway ramps were analyzed for the weekday AM and PM peak hours of commute traffic. The study intersections were also analyzed for the PM school peak hour of pick-up activities. In the study area, the AM peak hour is typically between 7:00 AM and 9:00 AM, while the PM commute peak hour is typically between 4:00 PM and 6:00 PM. The PM school peak hour is typically between 2:00 PM and 4:00 PM.

Traffic conditions were evaluated for the following scenarios:

- Scenario 1:** *Existing Conditions.* Existing traffic volumes are based on recent traffic counts conducted between 2016 and 2017 when school was in session and based on Caltrans counts for freeways.
- Scenario 2:** *Background Conditions.* Background traffic volumes were estimated by adding to existing peak-hour volumes the projected volumes from approved but not yet constructed or occupied developments in the study area. Approved project trips and approved project information were obtained from the City of Sunnyvale. In addition, roadway improvements associated with approved developments were assumed as directed by City staff.
- Scenario 3:** *Existing Plus Project Conditions.* Existing plus project conditions were estimated by adding to existing traffic volumes the traffic generated by the project. Trips generated by the existing land uses on the project site were credited based on ITE trip generation rates. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects the project would have on the existing roadway network.
- Scenario 4:** *Background Plus Project Conditions.* Background plus project conditions were estimated by adding to background traffic volumes the traffic generated by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.

According to VTA's CMP TIA guidelines, a scenario analyzing project impacts under cumulative conditions is also required. Because the project is consistent with the recently-adopted Peery Park Specific Plan (PPSP), the cumulative project impacts are included in the PPSP TIA document dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc. The project's contribution to the cumulative impacts of the PPSP is discussed in this report.

## Methodology

This section describes the methodologies used to determine the traffic conditions for each scenario as described above. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

### Data Requirements

The data required for the analysis were obtained from new traffic counts, previous traffic studies, the City of Sunnyvale, Caltrans records for freeways, field observations, and the Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition*. The following data were collected from these sources:

- Existing traffic volumes;
- Existing lane configurations;
- Signal timing and phasing, list of approved projects; and,
- Applicable trip generation rates.

## **Analysis Methodologies and Level of Service Standards**

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The various analysis methods are described below.

### **Signalized Study Intersections**

The City of Sunnyvale level of service analysis methodology for signalized intersections is the *Highway Capacity Manual* (HCM) 2000 operations method. This method is applied using the TRAFFIX software. The HCM 2000 operations method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated traffic impact analysis tool, the City of Sunnyvale employs the CMP default values for the analysis parameters within the software.

The Mathilda Avenue intersections at the SR 237 ramps and at Ross Drive are closely-spaced intersections with multiple turning movements that operate as a single coordinated signal system during the AM and PM commute peak hours. These intersections experience operational issues beyond what is reflected in the typical HCM level of service calculations by TRAFFIX. Therefore, Synchro software was used to provide a more accurate assessment of the Mathilda Avenue corridor operational issues. Synchro software was used to analyze these three intersections under all study scenarios during the AM and PM commute peak periods. During the PM school peak hour, traffic conditions are typically better than the AM and PM commute peak hours, and Synchro software was not necessary to accurately assess the operation conditions at these intersections.

The City of Sunnyvale General Plan level of service standard for signalized intersections is LOS D or better, except for intersections on roadways considered to be “regionally significant”, which have a standard of LOS E. In the study area, signalized intersections within Sunnyvale along Mathilda Avenue and ramp junctions at Central Expressway and at US 101 are considered regionally significant.

The correlation between average control delay and level of service is shown in Table 1.

### **CMP Intersections**

The designated level of service analysis methodology for the CMP is also the HCM 2000 operations method for signalized intersections, using TRAFFIX. The CMP level of service standard for signalized intersections within Sunnyvale is LOS E or better.

### **Unsignalized Study Intersections**

The level of service for the unsignalized intersections was evaluated using the HCM 2000 methodology. Level of service for unsignalized (side-street stop-controlled) intersections is evaluated based on the delay experienced by vehicles on the stop-controlled approaches. For two-way or T-intersections, the level of service is reported based on the average delay for the worst approach. For all-way stop-controlled intersections, the level of service is reported based on the average delay for all approaches. The City of Sunnyvale General Plan level of service standard for unsignalized intersections is LOS D or better.

The correlation between delay and level of service for unsignalized intersections is shown in Table 2.



**Table 1**  
**Signalized Intersection Level of Service Definitions Based on Delay**

| Level of Service | Description  | Average Control Delay Per Vehicle (sec.) |
|------------------|--|--|
| A                | Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.  | 10.0 or less                             |
| B+               | Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.  | 10.1 to 12.0                             |
| B                |  | 12.1 to 18.0                             |
| B-               |  | 18.1 to 20.0                             |
| C+               | Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though many still pass through the   | 20.1 to 23.0                             |
| C                |  | 23.1 to 32.0                             |
| C-               |  | 32.1 to 35.0                             |
| D+               | The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and   | 35.1 to 39.0                             |
| D                |  | 39.1 to 51.0                             |
| D-               |  | 51.1 to 55.0                             |
| E+               | This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.  | 55.1 to 60.0                             |
| E                |  | 60.1 to 75.0                             |
| E-               |  | 75.1 to 80.0                             |
| F                | This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major-contributing causes of such delay levels. | greater than 80.0                        |

Source: Transportation Research Board, *Highway Capacity Manual 2000* (Washington, D.C., 2000) p10-16.

**Table 2**  
**Unsignalized Intersection Level of Service Definitions Based on Delay**

| Level of Service | Description                | Average Control Delay Per Vehicle (sec.) |
|------------------|----------------------------|--|
| A                | Little or no traffic delay | 10.0 or less                             |
| B                | Short Traffic delays       | 10.1 to 15.0                             |
| C                | Average traffic delays     | 15.1 to 25.0                             |
| D                | Long traffic delays        | 25.1 to 35.0                             |
| E                | Very long traffic delays   | 35.1 to 50.0                             |
| F                | Extreme traffic delays     | greater than 50.0                        |

Source: Transportation Research Board, *Highway Capacity Manual 2000* (Washington, D.C., 2000) p17-2.

### **Traffic Signal Warrant**

An assessment of the need for signalization was conducted for the unsignalized intersections. For this study, the need for signalization is assessed on the basis of the peak hour volume signal warrant (Warrant #3) described in the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD). This method provides an indication of whether traffic conditions and peak-hour traffic levels are, or would be, sufficient to justify the installation of a traffic signal. It should be noted that it is just one of the factors/warrants used to indicate whether installation of a traffic control signal is justified.

### **Freeway Segments**

As prescribed in the Santa Clara County CMP technical guidelines, the level of service for freeway segments is estimated based on vehicle density. Density is calculated by the following formula:

$$D = V / (N * S)$$

Where:

D = density, in vehicles per mile per lane (vpmpl)

V = peak hour volume, in vehicle per hour (vph)

N = number of travel lanes

S = average travel speed, in miles per hour (mph)

The vehicle density on a segment is correlated to level of service as shown in Table 3. The CMP requires that mixed-flow lanes and auxiliary lanes be analyzed separately from high-occupancy vehicle (HOV) lanes (otherwise known as carpool lanes). The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for segments three lanes or wider in one direction, and a capacity of 2,200 vphpl be used for segments two lanes wide in one direction. HOV lanes are specified as having a capacity of 1,650 vphpl. The CMP defines an acceptable level of service for freeway segments as LOS E or better.

### **Freeway Ramps**

A freeway ramp analysis was performed in order to verify that the freeway ramps would have sufficient capacity to serve the expected traffic volumes with and without the project. This analysis consisted of a volume-to-capacity ratio evaluation of the freeway ramps at the study interchanges. The ramp capacities were obtained from the *Highway Capacity Manual 2000*, and considered the free-flow speed, number of lanes on the ramp, and the ramp metering. Hexagon observed the study freeway ramps in May 2017 and observed that some on-ramps are metered during certain peak periods. For the metered on-ramps during the metered periods, a queuing analysis was performed to determine the adequacy of ramp queue space under project conditions.

**Table 3**  
**Freeway Segment Level of Service Definitions**

| Level of Service | Description   | Density (vehicles/mile/lane) |
|------------------|---|------------------------------|
| A                | Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.   | 11.0 or less                 |
| B                | Speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. | 11.0 to 18.0                 |
| C                | Speeds at or near the free-flow speed of the freeway prevail. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more vigilance on the part of the driver.                              | 18.0 to 26.0                 |
| D                | Speeds begin to decline slightly with increased flows at this level. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.          | 26.0 to 46.0                 |
| E                | At this level, the freeway operates at or near capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream, leaving little room to maneuver within the traffic stream.          | 46.0 to 58.0                 |
| F                | Vehicular flow breakdowns occurs. Large queues form behind breakdown points.  | greater than 58.0            |

Source: Santa Clara County Valley Transportation Authority, Transportation Impact Analysis Guidelines, Updated March 2009 (Based on the *Highway Capacity Manual (2000)*, Washington, D.C.)

## Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis, the criteria used to determine significant impacts on signalized and unsignalized intersections as well as freeway facilities are based on the City of Sunnyvale and VTA's CMP level of service standards.

The effects of the project on other transportation facilities, such as bicycle facilities and transit service, were determined on the basis of engineering judgment.



## Definition of Significant Intersection Impacts

The project is said to create a significant adverse impact on traffic conditions at a signalized intersection in the City of Sunnyvale if for the study peak hour:

1. The level of service at the intersection drops below its respective level of service standard when project traffic is added; or,
2. An intersection that operates below its level of service standard under no project conditions experiences an increase in critical-movement delay of four (4) or more seconds, *and* the critical volume-to-capacity ratio (V/C) is increased by 0.01 or more when project traffic is added.

The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements are negative. In this case, the threshold is when the project increases the critical V/C value by 0.01 or more.

The operation of principal arterials and state highways located within urbanized Santa Clara County is measured by the level of service at CMP Intersections. CMP intersections are generally high-volume intersections located along these thoroughfares. The definition of a significant impact at a CMP intersection is the same as for the City of Sunnyvale, except that the standard for acceptable level of service for all CMP and regional intersections is LOS E or better.

A significant impact by the City of Sunnyvale and CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection conditions to its LOS standard *or* to an average delay that eliminates the project impact.

## Unsignalized Intersections

Level of service analysis at unsignalized intersections is generally used to determine the need for modification in type of intersection control (i.e. all-way stop or signalization). As part of this evaluation, traffic volumes, delays, and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

Per City of Sunnyvale guidelines, for determining the level of service for unsignalized intersections, the average intersection delay is used for all-way stop controlled intersections, and the worst movement delay is used for side-street stop-controlled intersections. Project impacts at City's unsignalized intersections would be considered significant if the intersection satisfies the CA MUTCD peak-hour volume signal warrant under project conditions and one of the following criteria is met:

1. If an intersection operates at an acceptable LOS (i.e. D or better) without the project and degrades to an unacceptable LOS (i.e. LOS E or F) with the addition of project traffic.
2. If an unsignalized intersection operates at an unacceptable LOS (i.e. LOS E or F) without the project and the addition of project traffic increases:
  - a. The average intersection delay by four (4) seconds or more, and the volume-to-capacity value by 0.01 or more for all-way stop controlled intersections; or
  - b. The worst movement delay by four (4) seconds or more, and the volume-to-capacity value by 0.01 or more for side-street stop controlled intersections.

## Definition of Significant Freeway Impacts

For this analysis, the criteria used to determine impacts on freeway segments are based on CMP standards. Per CMP requirements, freeway impacts are measured relative to existing conditions (i.e. there is no evaluation of freeways under background conditions). The project is said to create a significant adverse impact on traffic conditions on a freeway segment if for either peak hour:

1. The level of service of the freeway segment drops below the LOS E standard when project traffic is added; or,
2. The level of service of the freeway segment is LOS F under existing conditions and the number of new trips added by the project is more than one percent of the freeway capacity.

## Definition of Significant Freeway Ramp Impacts

A freeway ramp analysis was performed in order to verify that the freeway ramps would have sufficient capacity to serve the expected traffic volumes with and without the project. For the purpose of this study, the project is said to create a significant adverse impact on a freeway ramp if its implementation:

1. Causes the volume-to-capacity (V/C) ratio of the freeway ramp to exceed 1.0; or
2. Increases the amount of traffic on a freeway ramp that is already exceeding its capacity by more than one percent (1%) of the ramp's capacity.

## Report Organization

This report has a total of six chapters. Chapter 2 describes the existing conditions, including the existing roadway network, transit service, bicycle facilities, and pedestrian facilities. Chapter 3 presents the traffic conditions in the study area under background conditions. Chapter 4 describes the methods used to estimate the project traffic on the roadway network and presents the intersection operations under existing plus project and background plus project conditions. Chapter 5 provides an evaluation of other transportation related issues for the proposed project, such as vehicle queuing, potential project impacts on bicycle, pedestrian, and transit facilities, site access and circulation, and parking. Chapter 6 presents the traffic study conclusions, including a summary of any proposed mitigation measures and recommended improvements.

## 2. Existing Conditions

---

This chapter describes the existing conditions for all of the major transportation facilities in the vicinity of the project site, including the roadway network, transit service, and bicycle and pedestrian facilities. Also included are the existing levels of service of the study intersections.

### Existing Roadway Network

Regional access to the project study area is provided by US 101 and SR 237. These facilities are described below.

**US 101** is an eight-lane freeway (three mixed-flow lanes and one HOV lane in each direction) in the vicinity of the site. US 101 extends northward through San Francisco and southward through Gilroy. Access to and from the project area is provided via interchanges at Fair Oaks Avenue and Mathilda Avenue.

**SR 237** is a four to six-lane freeway in the vicinity of the project site that extends west to El Camino Real (Route 82) and east to I-880 in Milpitas. East of Mathilda Avenue, SR 237 has two mixed-flow lanes and one HOV lane in each direction. West of Mathilda Avenue, SR 237 has two mixed-flow lanes in each direction. SR 237 provides access to the project study area via an interchange at Mathilda Avenue.

Local access to the project site is provided via Mathilda Avenue, Fair Oaks Avenue, Central Expressway, San Aleso Avenue, Ahwanee Avenue, Maude Avenue, Duane Avenue, Borregas Avenue, and Morse Avenue. These roadways are described below.

**Mathilda Avenue** is a six-lane to eight-lane arterial running north-south. In the study area Mathilda Avenue has four lanes southbound and three lanes northbound. Mathilda Avenue begins at Caribbean Drive in the north, extends southward, and transitions into Sunnyvale-Saratoga Road. Freeway interchanges are located at US 101 and SR 237. Mathilda Avenue provides access to the project site via San Aleso Avenue.

**Fair Oaks Avenue** is a four-lane to six-lane, north-south arterial. Fair Oaks Avenue begins at Java Drive north of SR 237 and extends southward, and transitions into Remington Drive at its junction with El Camino Real. Fair Oaks Avenue has a full-access freeway interchange with US 101. North of US 101, Fair Oaks Avenue has a raised center median. North of Tasman Drive, light rail runs within the center median of Fair Oaks Avenue.

**Central Expressway** is a four-lane to six-lane expressway running east-west. In the study area, Central Expressway has two eastbound lanes and two westbound lanes. It begins at Trimble Road in the east, crosses Sunnyvale, extends westward and transitions into Alma Street. Central Expressway connects to Wolfe Road and Mathilda Avenue in the project vicinity.

**San Aleso Avenue** is a two-lane local road that begins at Mathilda Avenue and ends at Ahwanee Avenue. San Aleso Avenue provides direct access to the project site.

**Ahwanee Avenue** is a two-lane, east-west collector that begins at Mathilda Avenue and ends just before Lawrence Expressway. West of Mathilda Avenue, Ahwanee Avenue transitions into Almanor Avenue, which eventually turns into the north-south running Mary Avenue. Ahwanee Avenue provides access to the project site via San Aleso Avenue.

**Maude Avenue** is a two-lane to four-lane collector running east-west. Maude Avenue begins at Wolfe Road and ends at Logue Avenue. Maude Avenue is a four-lane roadway between SR 237 and Mathilda Avenue and a two-lane roadway elsewhere.

**Duane Avenue** is a two-lane, east-west collector that begins at Lawrence Expressway and ends just before Mathilda Avenue.

**Borregas Avenue** is a two-lane, north-south collector that begins at Maude Avenue and ends at Ahwanee Avenue. Borregas Avenue links to a bicycle and pedestrian overpass that crosses US 101.

**Morse Avenue** is a two-lane, north-south local road that begins at Ahwanee Avenue and ends at Fair Oaks Way.

## Existing Bicycle Facilities

Bicycle facilities include bike paths, bike lanes, and bike routes. Bike paths (Class I facilities) are pathways, separate from roadways that are designated for use by bicycles. Often, these pathways also allow pedestrian access. Bike lanes (Class II facilities) are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes (Class III) are existing right-of-way that accommodate bicycles but are not separate from the existing travel lanes. Routes are typically designated only with signs. Existing bicycle facilities within the project vicinity are described below and shown on Figure 3.

Within the project vicinity, the John W. Christian Greenbelt Trail is an east-west running Class I bike path north of US 101. It extends eastward from Borregas Avenue to the Calabazas Creek Trail. There is also a pedestrian/bicycle bridge connecting Borregas Avenue across US 101.

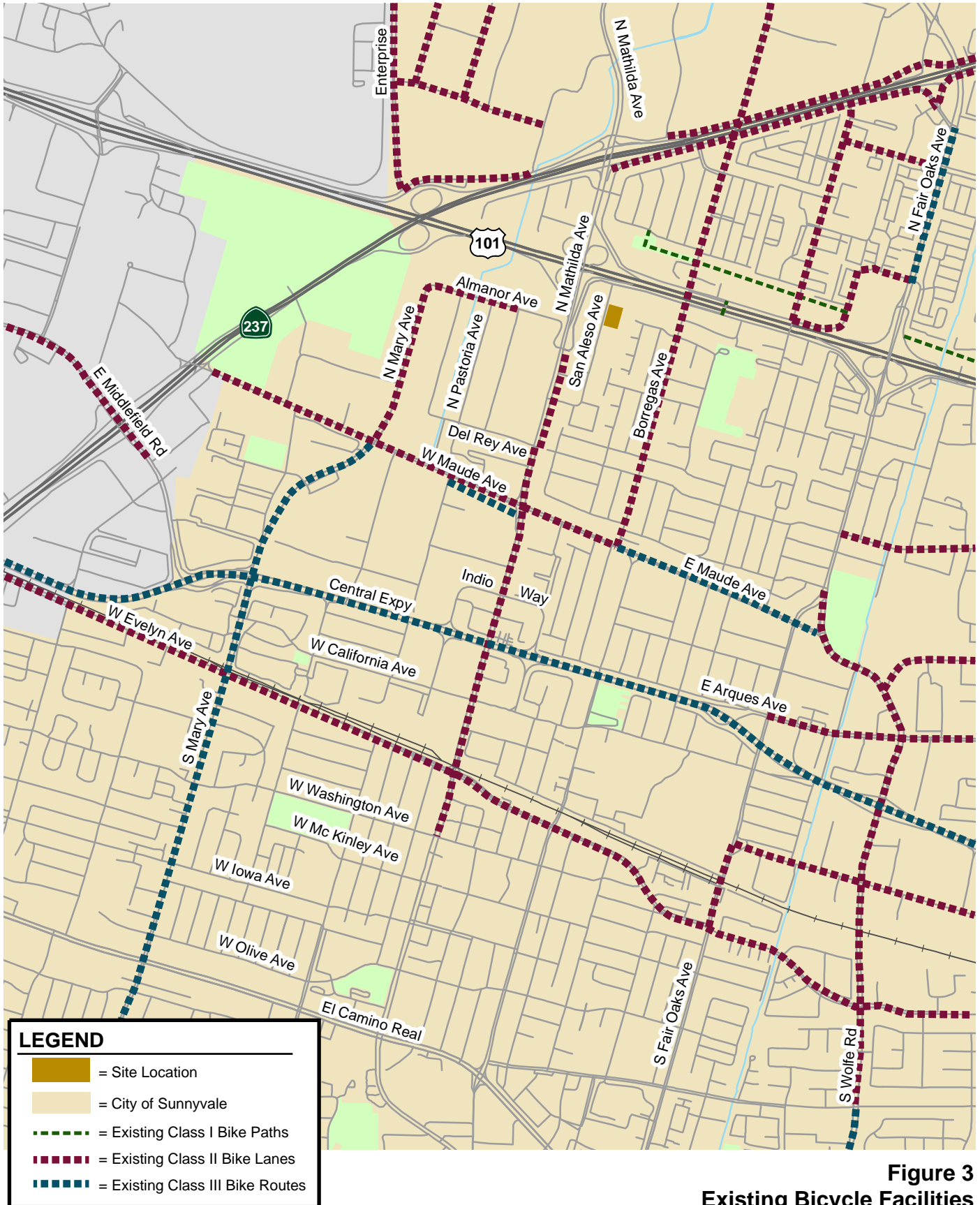
The following roadways have Class II bike lanes:

- Mary Avenue, between Almanor Avenue and Maude Avenue
- Mathilda Avenue between Del Rey Avenue and Almanor Avenue (northbound only)
- Mathilda Avenue between Washington Avenue and Del Rey Avenue
- Borregas Avenue
- Wolfe Road, between Old San Francisco Road and Fair Oaks Avenue
- Fair Oaks Avenue, between Evelyn Avenue and Kifer Road
- Almanor Avenue, between Mary Avenue and Vaqueros Avenue
- Maude Avenue, between SR (CA) 237 Service Road and Borregas Avenue (except on eastbound Maude Avenue between Pastoria Avenue and Mathilda Avenue)
- Morse Avenue north of Weddell Drive
- Tasman Drive, between Morse Avenue and Fair Oaks Avenue
- Weddell Drive, between Morse Avenue and Fair Oaks Avenue
- Duane Avenue east of Fair Oaks Avenue
- Stewart Drive
- Arques Avenue/Scott Boulevard
- Evelyn Avenue
- Kifer Road, between Fair Oaks Avenue and Lawrence Expressway

Within the project vicinity, Central Expressway, Lawrence Expressway, Maude Avenue west of Borregas Avenue, Fair Oaks Avenue north of Weddell Drive, Wolfe Road between El Camino Real and Old San Francisco Road, and Mary Avenue south of Maude Avenue are City-designated Class III bike routes.

## Existing Pedestrian Facilities

Within the project vicinity, sidewalks and crosswalks are present along most sections of roadways. As shown on Figure 4, sidewalks and crosswalks are missing along only selected sections of the roadways. Along San Aleso Avenue, which is the roadway fronting the project site, sidewalk is mostly missing on the east side of the street south of the project site. Sidewalk is missing on the west side of San Aleso Avenue around the roadway bend south of the Larkspur Landing hotel. There is a pedestrian/bicycle bridge connecting Borregas Avenue across US 101. At the intersection of Borregas Avenue and Ahwanee Avenue, which is the southern end of the pedestrian bridge, white ladder crosswalks are present across the east, west and south legs, increasing pedestrian visibility to oncoming traffic. At the intersection of Borregas Avenue and Weddell Drive, which is the northern end of the pedestrian bridge, white ladder crosswalk is present across only the west leg. As discussed above, the John W. Christian Greenbelt Trail is a pedestrian/bicycle trail that extends eastward from Borregas Avenue to the Calabazas Creek Trail.






**Figure 3**  
**Existing Bicycle Facilities**





**LEGEND**

-  = Site Location
-  = Sidewalk Missing
-  = Crosswalk Missing

**Figure 4**  
**Existing Pedestrian Facilities**

## Existing Transit Service

Existing transit service to the study area is provided by VTA and Caltrain. These services are described below and shown on Figure 5.

### VTA Bus Service

The nearest VTA bus stops to the project site are located along Mathilda Avenue between San Aleso Avenue and Ahwanee Avenue, approximately 1,700 feet from the project area. This bus stop is serviced by VTA Bus Route 54. Route 54 travels from De Anza College to the Lockheed Martin/Moffett Industrial Park with headways of approximately 30 minutes on weekdays between 6 AM and 9 PM.

Route 55 travels from De Anza College to Great America and stops at the Sunnyvale Transit Center with approximately 15-minute headways during peak commute hours and 30-minute headways during off-peak hours. Within the project vicinity, Bus Route 55 has a stop at the intersection of Sunnyvale Avenue and Maude Avenue. This bus stop is located approximately one mile from the project site, which is within biking distance. There are bike lanes along most sections of this bike route.

Route 26 travels from the Lockheed Martin Transit Station to the Eastridge Transit Center with approximately 30-minute headways between 5 AM and 10 PM. Within the project vicinity, Bus Route 26 has a stop at the intersection of Fair Oaks Avenue and Maude Avenue. This bus stop is located approximately 1.5 miles from the project site, which is within biking distance. There are bike lanes along most sections of this bike route.

### Light Rail Transit (LRT) Service

The VTA currently operates the 42.2-mile VTA light rail transit (LRT) line system extending from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Mountain View, Milpitas, Campbell, and Sunnyvale. Service operates 21 hours per day, every 15 minutes during much of the day. There are two LRT stations that are both located approximately the same distance (1.5 miles) from the project site: the Fair Oaks LRT station and the Lockheed Martin LRT station. The Lockheed Martin station is served by Bus Route 54 to and from the project site but lacks continuous pedestrian facilities to the project site. There are continuous pedestrian facilities between the project site and the Fair Oaks LRT station via the Borregas pedestrian overpass over US 101, but there are no direct bus services.

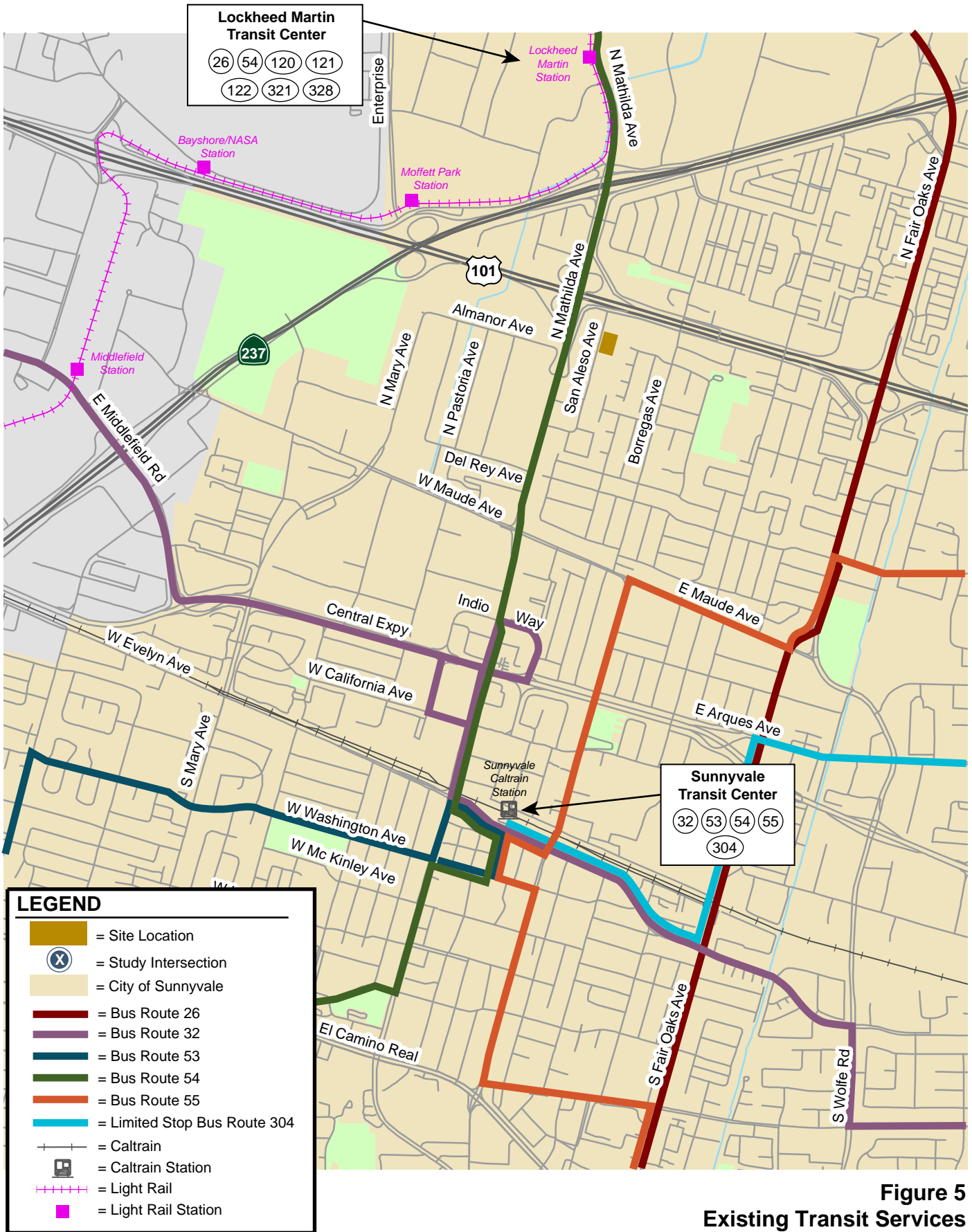
### Caltrain Service

Caltrain provides commuter rail service between San Francisco and San Jose, with limited service to Gilroy during commute hours. The closest Caltrain station to the project site is the Sunnyvale Station. The Sunnyvale Station is located approximately 1.5 miles south of the project site. While there are no Caltrain shuttles that connect to the Sunnyvale Station, Caltrain riders can connect to the project site via VTA Bus Route 54.

During the morning peak period from 6:00-9:00 AM, the Sunnyvale Station is served by three baby bullet (express) and nine limited-stop northbound trains with headways between five and thirty minutes. A total of four southbound trains, two local-stop and two limited-stop, serve the Sunnyvale Station in the AM peak period with headways between 30 and 70 minutes. In the PM commute peak period between 4:00 and 7:00 PM, the station is served by two baby bullet, six limited-stop, and one local-stop southbound trains with headways between five and thirty-five minutes. There are three limited-stop northbound trains with approximately one hour headways during the PM commute peak period. During the PM school peak period between 2:00 and 4:00 PM, the station is served by two limited-stop and two local-stop trains in the northbound direction and one limited-stop and two local-stop trains in the southbound direction.



824 San Aleso Ave. Summit High School



## Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were confirmed by observations in the field and are shown on Figure 6.

## Existing Traffic Volumes

Existing traffic volumes were obtained from traffic counts conducted in 2016 and 2017 (Tables 4 and 5 below show the intersection count dates). The existing AM and PM peak hour intersection volumes are shown graphically on Figure 7. The traffic count data are included in Appendix A.

## Existing Intersection Levels of Service

Intersection levels of service were evaluated against the City of Sunnyvale and CMP standards (see Tables 4 and 5). The results of the analysis show that all study intersections currently operate at acceptable levels during all study periods, except the unsignalized intersection at Wolfe Road and Maude Avenue currently operates at an unacceptable LOS F for the worst movement during the PM commute peak hour. Signal warrants were checked at this intersection under existing conditions and found that the Peak Hour Signal Warrant would be met during the PM commute peak hour. Because the remaining unsignalized intersections are currently operating at acceptable levels, peak hour signal warrants were not checked. The intersection level of service calculation sheets are included in Appendix B.

The Mathilda Avenue intersections at the SR 237 ramps and at Ross Drive are closely-spaced intersections with multiple turning movements that operate as a single coordinated signal system during the AM and PM commute peak hours. These intersections experience operational issues beyond what is reflected in the typical HCM level of service calculations by TRAFFIX. Therefore, Synchro software was used to provide a more accurate assessment of the Mathilda Avenue corridor operational issues. Synchro software was used to analyze these three intersections under all study scenarios during the AM and PM commute peak periods. During the PM school peak hour, traffic conditions are typically better than the AM and PM commute peak hours, and Synchro software was not necessary to accurately assess the operation conditions at these intersections. The Synchro analysis results for the intersections along Mathilda Avenue at the SR 237 ramps and at Ross Drive are shown on Table 4.

**Table 4**  
**Existing Intersection Level of Service Summary – Signalized Study Intersections**

| #  | Intersection                           | Peak Hour | Count Date | LOS Std. | Existing         |     |
|----|--|-----------|------------|----------|------------------|-----|
|    |  |           |            |          | Avg. Delay (sec) | LOS |
| 1  | Mathilda Ave & SR 237 WB Ramps         | AM *      | 11/00/15   | E        | 23.8             | C   |
|    |  | School PM | 05/16/17   |          | 19.8             | B-  |
|    |  | PM *      | 11/00/15   |          | 20.7             | C+  |
| 2  | Mathilda Ave & SR 237 EB Ramps         | AM *      | 11/00/15   | E        | 21.9             | C+  |
|    |  | School PM | 05/16/17   |          | 17.7             | B   |
|    |  | PM *      | 11/00/15   |          | 68.2             | E   |
| 3  | Mathilda Ave & Ross Dr                 | AM *      | 11/00/15   | E        | 11.9             | B+  |
|    |  | School PM | 05/16/17   |          | 16.7             | B   |
|    |  | PM *      | 11/00/15   |          | 39.1             | D   |
| 4  | Mathilda Ave & Almanor Ave             | AM        | 11/00/15   | E        | 24.0             | C   |
|    |  | School PM | 05/16/17   |          | 21.9             | C+  |
|    |  | PM        | 11/00/15   |          | 27.2             | C   |
| 5  | Mathilda Ave & San Aleso Ave           | AM        | 11/00/15   | E        | 9.6              | A   |
|    |  | School PM | 05/16/17   |          | 9.8              | A   |
|    |  | PM        | 11/00/15   |          | 12.9             | B   |
| 6  | Mathilda Ave & Maude Ave               | AM        | 11/00/15   | E        | 41.6             | D   |
|    |  | School PM | 05/16/17   |          | 30.2             | C   |
|    |  | PM        | 11/00/15   |          | 44.9             | D   |
| 7  | Mathilda Ave & Indio Ave               | AM        | 11/00/15   | E        | 29.6             | C   |
|    |  | School PM | 05/16/17   |          | 10.4             | B+  |
|    |  | PM        | 11/00/15   |          | 23.7             | C   |
| 8  | Mathilda Ave & California Ave          | AM        | 11/00/15   | E        | 25.4             | C   |
|    |  | School PM | 05/16/17   |          | 17.6             | B   |
|    |  | PM        | 11/00/15   |          | 28.5             | C   |
| 12 | Sunnyvale Ave/Borregas Ave & Maude Ave | AM        | 05/16/17   | D        | 41.1             | D   |
|    |  | School PM | 05/16/17   |          | 32.7             | C-  |
|    |  | PM        | 05/16/17   |          | 29.3             | C   |
| 16 | Fair Oaks Ave & Weddell Dr             | AM        | 04/04/17   | D        | 17.2             | B   |
|    |  | School PM | 12/02/15   |          | 20.0             | C+  |
|    |  | PM        | 04/04/17   |          | 16.5             | B   |
| 17 | Fair Oaks Ave & US 101 NB Ramps        | AM        | 04/04/17   | D        | 23.4             | C   |
|    |  | School PM | 12/02/15   |          | 20.0             | C+  |
|    |  | PM        | 04/04/17   |          | 27.4             | C   |
| 18 | Fair Oaks Ave & Ahwanee Ave            | AM        | 04/04/17   | D        | 22.3             | C+  |
|    |  | School PM | 12/02/15   |          | 18.2             | B-  |
|    |  | PM        | 04/04/17   |          | 13.9             | B   |
| 19 | Fair Oaks Ave & Duane Ave              | AM        | 04/04/17   | D        | 34.6             | C-  |
|    |  | School PM | 12/02/15   |          | 30.5             | C   |
|    |  | PM        | 04/04/17   |          | 31.4             | C   |
| 20 | Fair Oaks Ave & Wolfe Rd               | AM        | 04/04/17   | D        | 16.0             | B   |
|    |  | School PM | 12/02/15   |          | 13.4             | B   |
|    |  | PM        | 04/04/17   |          | 14.1             | B   |
| 21 | Fair Oaks Ave & Maude Ave              | AM        | 05/16/17   | D        | 27.1             | C   |
|    |  | School PM | 12/02/15   |          | 29.0             | C   |
|    |  | PM        | 05/16/17   |          | 31.2             | C   |
| 23 | Wolfe Rd & Arques Ave                  | AM        | 04/04/17   | D        | 40.5             | D   |
|    |  | School PM | 12/02/15   |          | 39.3             | D   |
|    |  | PM        | 04/04/17   |          | 40.4             | D   |
| 24 | Wolfe Rd & Central Expwy Ramps         | AM        | 04/04/17   | E        | 37.9             | D+  |
|    |  | School PM | 12/02/15   |          | 41.3             | D   |
|    |  | PM        | 04/04/17   |          | 62.8             | E   |

**Notes:**

\* Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

**Table 5**  
**Existing Intersection Level of Service Summary – Unsignalized Study Intersections**

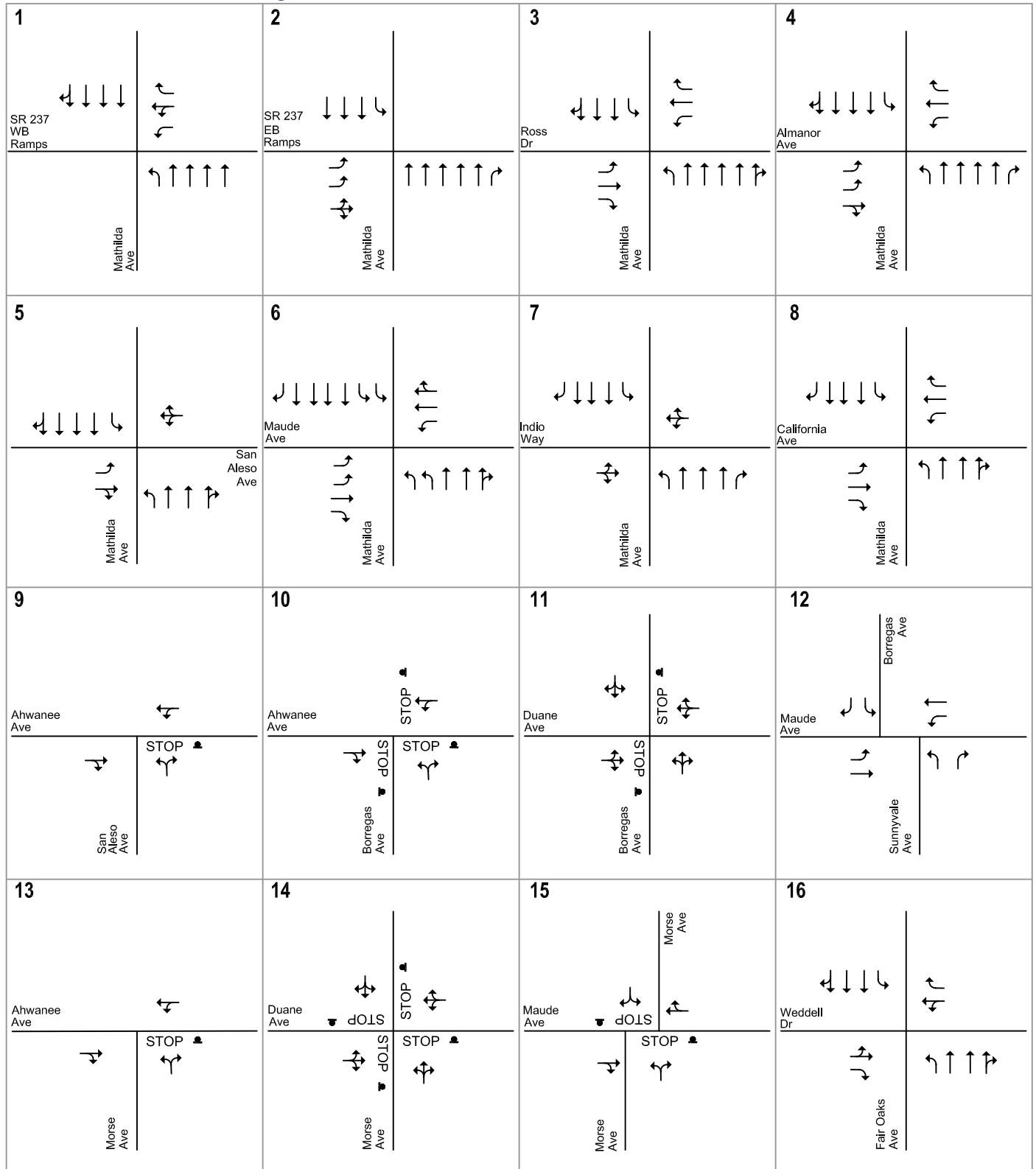
| #  | Intersection                | Control                       | Peak Hour | Count Date | Existing    |          |                                 |
|----|-----------------------------|-------------------------------|-----------|------------|-------------|----------|---------------------------------|
|    |                             |                               |           |            | Delay (sec) | LOS      | Signal Warrant Met <sup>3</sup> |
| 9  | San Aleso Ave & Ahwanee Ave | Side-Street Stop <sup>1</sup> | AM        | 05/16/17   | 9.7         | A        |                                 |
|    |                             |                               | School PM | 05/16/17   | 9.3         | A        | -                               |
|    |                             |                               | PM        | 05/16/17   | 10.5        | B        |                                 |
| 10 | Borregas Ave & Ahwanee Ave  | All-Way Stop <sup>2</sup>     | AM        | 05/16/17   | 9.0         | A        |                                 |
|    |                             |                               | School PM | 05/16/17   | 7.9         | A        | -                               |
|    |                             |                               | PM        | 05/16/17   | 9.2         | A        |                                 |
| 11 | Borregas Ave & Duane Ave    | Side-Street Stop <sup>1</sup> | AM        | 05/16/17   | 11.6        | B        |                                 |
|    |                             |                               | School PM | 05/16/17   | 10.7        | B        | -                               |
|    |                             |                               | PM        | 05/16/17   | 12.0        | B        |                                 |
| 13 | Morse Ave & Ahwanee Ave     | Side-Street Stop <sup>1</sup> | AM        | 05/16/17   | 18.5        | C        |                                 |
|    |                             |                               | School PM | 05/16/17   | 11.3        | B        | -                               |
|    |                             |                               | PM        | 05/16/17   | 11.7        | B        |                                 |
| 14 | Morse Ave & Duane Ave       | All-Way Stop <sup>2</sup>     | AM        | 05/16/17   | 10.4        | B        |                                 |
|    |                             |                               | School PM | 05/16/17   | 8.8         | A        | -                               |
|    |                             |                               | PM        | 05/16/17   | 8.6         | A        |                                 |
| 15 | Morse Ave & Maude Ave       | Side-Street Stop <sup>1</sup> | AM        | 05/16/17   | 14.5        | B        |                                 |
|    |                             |                               | School PM | 05/16/17   | 13.2        | B        | -                               |
|    |                             |                               | PM        | 05/16/17   | 16.2        | C        |                                 |
| 22 | Wolfe Rd & Maude Ave        | Side-Street Stop <sup>1</sup> | AM        | 05/25/17   | 26.5        | D        | No                              |
|    |                             |                               | School PM | 05/25/17   | 20.4        | C        | -                               |
|    |                             |                               | PM        | 05/25/17   | <b>50.4</b> | <b>F</b> | <b>Yes</b>                      |

**Notes:**

1. Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
2. Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections
3. The CA MUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

**BOLD** indicates unacceptable level of service

824 San Aleso Ave. Summit High School

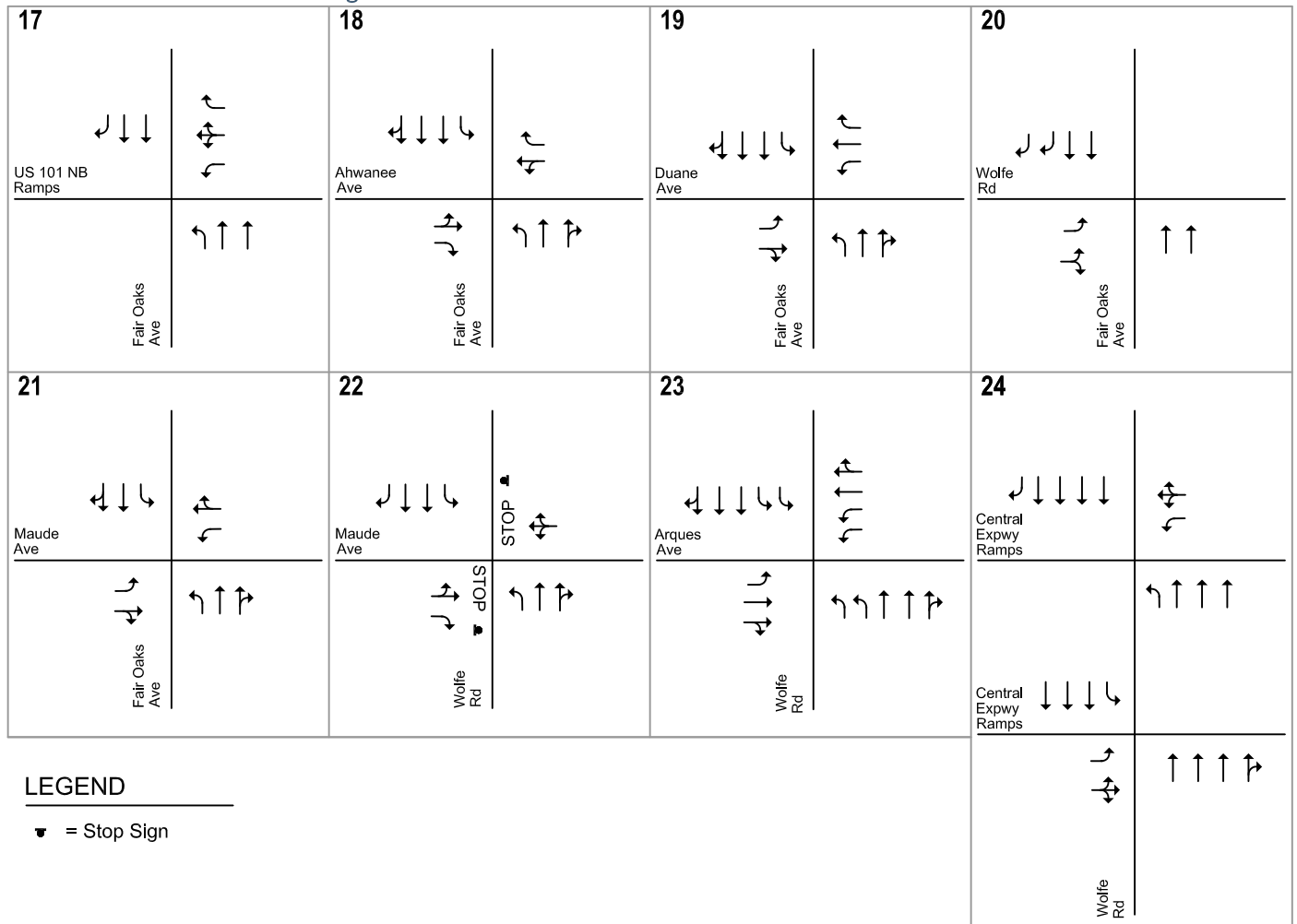


LEGEND

▼ = Stop Sign

Figure 6  
Existing Intersection Lane Configurations

824 San Aleso Ave. Summit High School

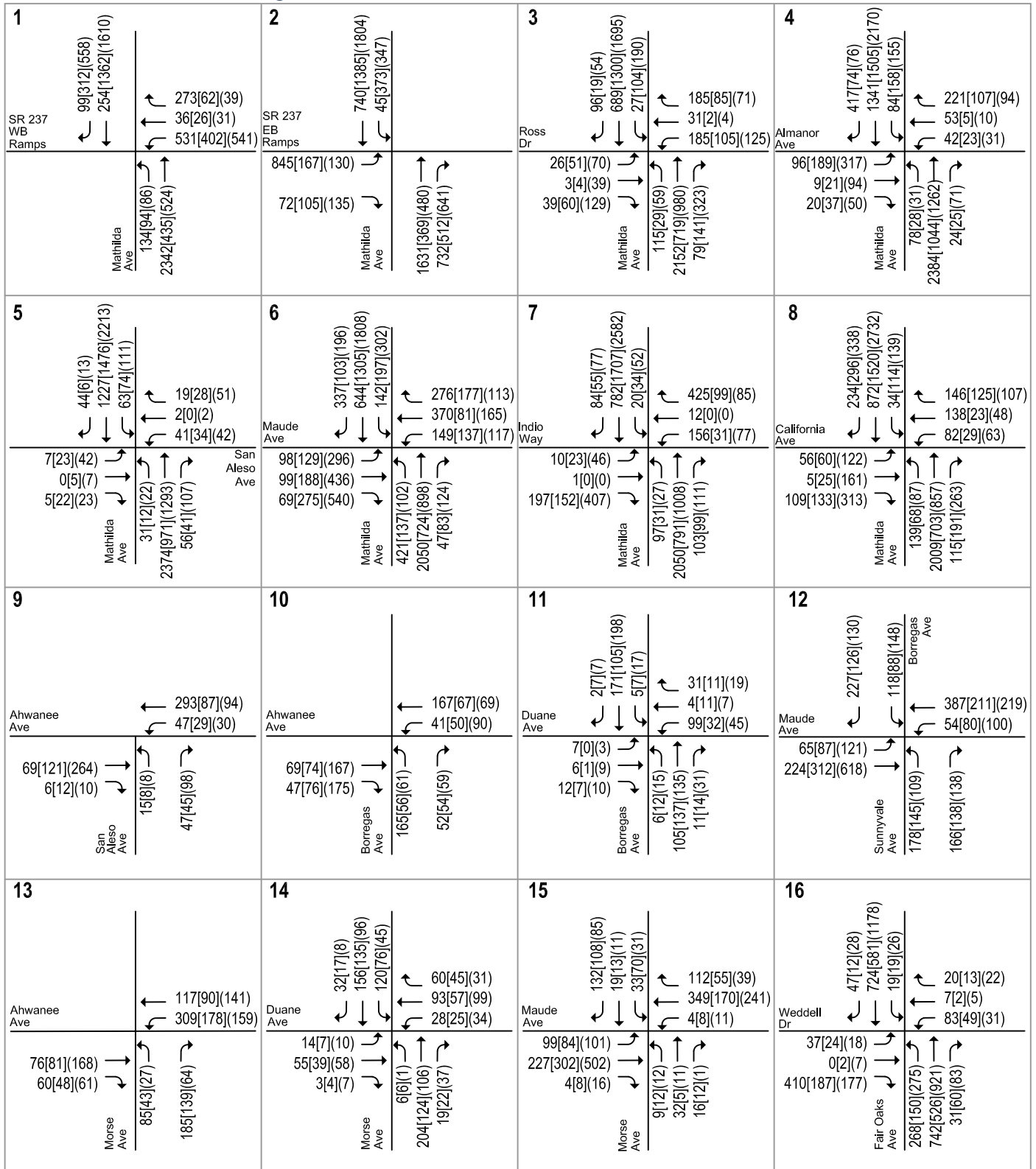


**LEGEND**

▼ = Stop Sign

**Figure 6**  
Existing Intersection Lane Configurations

824 San Aleso Ave. Summit High School



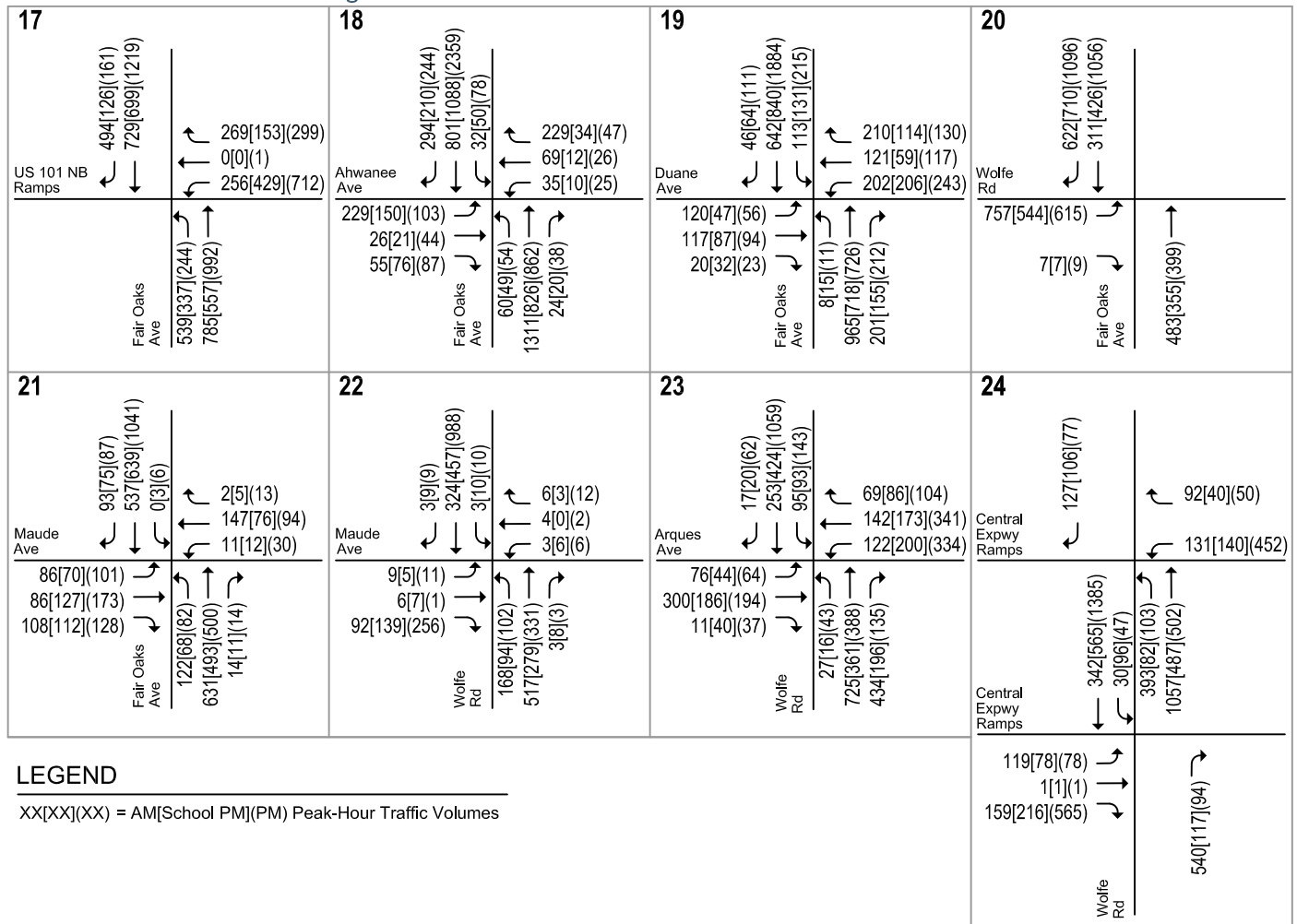
LEGEND

XX[XX](XX) = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 7  
Existing Traffic Volumes



824 San Aleso Ave. Summit High School



**LEGEND**

XX[XX](XX) = AM[School PM](PM) Peak-Hour Traffic Volumes

**Figure 7**  
Existing Traffic Volumes



## Existing Freeway Level of Service

Existing weekday AM and PM peak hour traffic volumes on the study freeway segments were obtained from the *Santa Clara VTA 2016 Monitoring and Conformance Report*. The existing freeway level of service during the weekday AM and PM peak hours of traffic are summarized in Table 6. The mixed-flow lanes on the following directional study freeway segments currently operate at LOS F during either the AM or PM peak hour:

- US 101, northbound from Lawrence Expressway to Fair Oaks Avenue (AM Peak Hour)
- US 101, northbound from Mathilda Avenue to SR 237 (AM Peak Hour)
- US 101, southbound from SR 237 to Lawrence Expressway (PM Peak Hour)
- SR 237, eastbound from US 101 to Lawrence Expressway (PM Peak Hour)
- SR 237, westbound from Lawrence Expressway to Mathilda Avenue (AM Peak Hour)
- SR 237, westbound from Lawrence Expressway to US 101 (PM Peak Hour)

**Table 6**  
**Existing Freeway Level of Service Summary**

| Freeway Segment                          | Dir. | Peak Hour | Existing Conditions - Mixed Flow Lanes <sup>1</sup> |          |              |              | LOS      |
|--|------|-----------|---|----------|--------------|--------------|----------|
|  |      |           | Ave. Speed  | Lanes    | Capacity     | Volume       |          |
| US 101 Lawrence Expwy. to Fair Oaks Ave. | NB   | AM        | <b>33</b>   | <b>3</b> | <b>6,900</b> | <b>5,940</b> | <b>F</b> |
|  |      | PM        | 66  | 3        | 6,900        | 4,760        | C        |
| US 101 Fair Oaks Ave. to Mathilda Ave.   | NB   | AM        | 43  | 3        | 6,900        | 6,330        | E        |
|  |      | PM        | 66  | 3        | 6,900        | 4,760        | C        |
| US 101 Mathilda Ave. to SR 237           | NB   | AM        | <b>28</b>   | <b>3</b> | <b>6,900</b> | <b>5,630</b> | <b>F</b> |
|  |      | PM        | 39  | 3        | 6,900        | 6,210        | E        |
| US 101 SR 237 to Mathilda Ave.           | SB   | AM        | 66  | 3        | 6,900        | 4,560        | C        |
|  |      | PM        | <b>18</b>   | <b>3</b> | <b>6,900</b> | <b>4,700</b> | <b>F</b> |
| US 101 Mathilda Ave. to Fair Oaks Ave.   | SB   | AM        | 66  | 3        | 6,900        | 4,760        | C        |
|  |      | PM        | <b>25</b>   | <b>3</b> | <b>6,900</b> | <b>5,400</b> | <b>F</b> |
| US 101 Fair Oaks Ave. to Lawrence Expwy. | SB   | AM        | 66  | 3        | 6,900        | 5,510        | D        |
|  |      | PM        | <b>16</b>   | <b>3</b> | <b>6,900</b> | <b>4,420</b> | <b>F</b> |
| SR 237 US 101 to Mathilda Ave.           | EB   | AM        | 55  | 2        | 4,400        | 4,400        | D        |
|  |      | PM        | <b>9</b>  | <b>2</b> | <b>4,400</b> | <b>2,180</b> | <b>F</b> |
| SR 237 Mathilda Ave. to Fair Oaks Ave.   | EB   | AM        | 64  | 2        | 4,400        | 4,230        | D        |
|  |      | PM        | <b>14</b>   | <b>2</b> | <b>4,400</b> | <b>2,800</b> | <b>F</b> |
| SR 237 Fair Oaks Ave. to Lawrence Expwy. | EB   | AM        | 64  | 2        | 4,400        | 4,230        | D        |
|  |      | PM        | <b>10</b>   | <b>2</b> | <b>4,400</b> | <b>2,300</b> | <b>F</b> |
| SR 237 Lawrence Expwy. to Fair Oaks Ave. | WB   | AM        | <b>15</b>   | <b>2</b> | <b>4,400</b> | <b>2,850</b> | <b>F</b> |
|  |      | PM        | <b>32</b>   | <b>2</b> | <b>4,400</b> | <b>3,910</b> | <b>F</b> |
| SR 237 Fair Oaks Ave. to Mathilda Ave.   | WB   | AM        | <b>18</b>   | <b>3</b> | <b>6,900</b> | <b>4,810</b> | <b>F</b> |
|  |      | PM        | <b>19</b>   | <b>3</b> | <b>6,900</b> | <b>4,790</b> | <b>F</b> |
| SR 237 Mathilda Ave. to US 101           | WB   | AM        | 41  | 2        | 4,400        | 4,190        | E        |
|  |      | PM        | <b>20</b>   | <b>2</b> | <b>4,400</b> | <b>3,280</b> | <b>F</b> |

Notes:

- Existing freeway conditions referenced the *Santa Clara VTA 2016 Monitoring and Conformance Report*, dated February 2, 2017. **BOLD** indicates a substandard level of service.

## Existing Freeway Ramp Capacity Analysis

This analysis consists of a volume-to-capacity ratio evaluation of eight freeway ramps at the interchanges of US 101 and Mathilda Avenue and SR 237 and Mathilda Avenue. The ramp capacities were obtained from the *Highway Capacity Manual 2000*, which considers both the free-flow speed and the number of lanes on the study ramps.

Hexagon conducted field observations at all on ramps in May 2017, and found that the US 101 southbound on-ramp from northbound Mathilda Avenue was metered during the PM peak hour. The US 101 northbound on-ramp from northbound Mathilda Avenue and the SR 237 westbound on-ramp both have ramp meter equipment, and Caltrans could turn on ramp metering in the future. As a conservative approach, it is assumed that all on-ramps with existing ramp meter equipment are metered during both the AM and PM peak hours for the ramp capacity analysis.

It is assumed that the metered ramps would each have a capacity of 900 vehicles per hour. The peak-hour freeway ramp volumes were obtained from personal communication with Caltrans staff and/or derived from collected traffic counts. As shown on Table 7, all freeway ramps currently have sufficient capacity to serve the existing traffic volumes, with volume-to-capacity ratios that are well below 1.0, which means that the existing traffic demand is lower than the ramp capacity during both the AM and PM peak hours.

A ramp metering analysis was conducted for the US 101 southbound on-ramp from northbound Mathilda Avenue during the PM peak hour (see Chapter 4). Hexagon observed that during the PM peak hour the mixed-flow lane on the ramp had an average queue of four vehicles and a maximum queue of 12 vehicles. Queues were minimal in the HOV lane.

**Table 7**  
**Existing Freeway Ramp Capacity Analysis Summary**

| Interchange         | Ramp                            | Type     | Peak Hour | Lanes |     |                    | Existing Conditions   |                          |              |
|---------------------|---------------------------------|----------|-----------|-------|-----|--------------------|-----------------------|--------------------------|--------------|
|                     |                                 |          |           | Mixed | HOV | Meter <sup>1</sup> | Capacity <sup>2</sup> | Peak Volume <sup>3</sup> | V/C          |
| US 101/Mathilda Ave | SB On-Ramp fr. NB Mathilda Ave. | Diagonal | AM<br>PM  | 1     | 1   | Equipment Present  | 1,800                 | 480<br>433               | 0.27<br>0.24 |
|                     | NB On-Ramp fr. NB Mathilda Ave. | Loop     | AM<br>PM  | 1     | 1   | Equipment Present  | 1,800                 | 287<br>295               | 0.16<br>0.16 |
|                     | SB Off-Ramp                     | Diagonal | AM<br>PM  | 1     |     |                    | 2,000                 | 340<br>498               | 0.17<br>0.25 |
|                     | NB Off-Ramp to SB Mathilda Ave. | Loop     | AM<br>PM  | 1     |     |                    | 1,800                 | 722<br>729               | 0.40<br>0.41 |
| SR 237/Mathilda Ave | EB On-Ramp                      | Diagonal | AM<br>PM  | 1     |     |                    | 2,000                 | 765<br>985               | 0.38<br>0.49 |
|                     | WB On-Ramp                      | Diagonal | AM<br>PM  | 1     |     | Equipment Present  | 900                   | 226<br>502               | 0.25<br>0.56 |
|                     | EB Off-Ramp                     | Diagonal | AM<br>PM  | 2     |     |                    | 3,800                 | 1,020<br>890             | 0.27<br>0.23 |
|                     | WB Off-Ramp                     | Diagonal | AM<br>PM  | 1     |     |                    | 2,000                 | 840<br>390               | 0.42<br>0.20 |

**Notes:**

SB=Southbound, NB=Northbound, EB=Eastbound, WB=Westbound, fr.=from

1. As a conservative approach, if an on-ramp has meter equipment present, the ramp is analyzed assuming it is metered.

2. Ramp capacities were obtained from the *Highway Capacity Manual 2000*, and considered the free-flow speed, the number of lanes on the ramp, and ramp metering.

3. Existing peak hour volumes are obtained through personal communication with Caltrans staff.

## Observed Existing Traffic Conditions

Traffic conditions in the field were observed at each study intersection in order to identify existing operational deficiencies and to confirm the accuracy of the calculated level of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to level of service, (2) identify any locations where the level of service analysis does not accurately reflect existing traffic conditions. Hexagon conducted field observations on a regular weekday during the AM, PM school (2-4 PM) and PM commute (4-6 PM) peak hours in May 2017. Some of the study intersections had no significant operational issues, and vehicular queues on all approaches were mostly able to clear in one cycle. The observed operational issues at the remaining study intersections are identified below.

It should be noted that the discussion below indicates occasional cycle failures for specific movements. Intersection level of service calculation is based on the average delay of all movements within the peak hour. Therefore, if one movement is failing to clear within one signal cycle but other movements receive minimal delays, the intersection could still operate at acceptable levels of service.

### **Mathilda Avenue between California Avenue and Almanor Avenue**

During the AM peak hour, this corridor experienced relatively high volumes in the northbound direction. Northbound traffic received green phases at the California Avenue intersection and at the Indio Avenue intersection before the northbound green phase at the Maude Avenue intersection. As a result, lengthy northbound queues developed from Maude Avenue and extended south past California Avenue. During the green phase at the Maude Avenue intersection, northbound vehicles were able to clear the California Avenue intersection, but not all were able to clear the Indio Avenue intersection. North of Maude Avenue, northbound vehicles were able to clear the Almanor Avenue intersection and the San Aleso intersection within one signal cycle.

During the PM school (2-4 PM) peak hour, no significant intersection operational issues were observed.

During the PM commute (4-6 PM) peak hour, this corridor experienced relatively high volumes in the southbound direction. Southbound traffic from the Almanor Avenue intersection and the San Aleso Avenue intersection experienced slow progression because of the downstream queue at the Maude Avenue intersection. Most southbound vehicles were able to clear the Almanor Avenue and San Aleso Avenue intersections within one signal cycle, but not all vehicles were able to clear the Maude Avenue intersection within one signal cycle. Because the outside southbound through lane terminates just south of Maude Avenue, vehicles were observed to favor the three inner southbound through lanes more than the outside through lane. At the intersection of Mathilda Avenue and Indio Avenue, the southbound progression was slow because of the downstream queue at the California Avenue intersection. Southbound vehicles were mostly able to clear the Indio Avenue within one signal cycle, but not all vehicles were able to clear the California Avenue intersection within one signal cycle.

At the intersection of Mathilda Avenue and Almanor Avenue during both the AM and PM commute peak hours, the northbound left-turn phase was often skipped even when there were vehicles queued. The signal sometimes went through two to three signal cycles before calling the northbound left-turn phase. As a result, long queues formed in the northbound left-turn pocket.

### **Mathilda Avenue between Ross Drive and SR 237 Westbound Ramps**

During the AM peak hour, this corridor experienced relatively high volumes in the northbound direction. Northbound progression was slow through this corridor because of the close proximity of the intersections. Most northbound vehicles were able to clear this corridor within one signal cycle, but vehicles at the end of queue sometimes were unable to clear all three intersections within one signal cycle. The eastbound left-turn movement at the SR 237 Eastbound Ramps intersection and the westbound right-turn movement at the SR 237 Westbound Ramps intersection both received heavy volumes and required at least two signal cycles to clear this corridor.

During the PM school (2-4 PM) peak hour, no significant intersection operation issues were observed.

During the PM commute (4-6 PM) peak hour, this corridor experienced relatively high volumes in the southbound direction. However, most vehicles were able to clear this corridor within one signal cycle. At the intersection of Mathilda Avenue and SR 237 Westbound Ramps, the westbound left-turn movement occasionally required two signal cycles to clear.

### **Fair Oaks Avenue and Weddell Drive**

During both the AM and PM commute peak hours, the northbound left-turn movement received heavy traffic volumes and often required two signal cycles to clear the intersection.

### **Fair Oaks Avenue and US 101 Northbound Ramps**

During the PM commute peak hour, the westbound left-turn movement received heavy traffic volumes and occasionally required two signal cycles to clear the intersection.

### **Fair Oaks Avenue and Duane Avenue**

During the AM, PM school and PM commute peak hours, the southbound and westbound left-turn movements received heavy traffic volumes and required two signal cycles to clear the intersection. During the AM peak hour, the congestion was observed during only the peak 15-minute of drop-off operations at King's Academy. During the PM school peak hour, the congestion was observed during only the peak 15-minute of pick-up operations.

### **Fair Oaks Avenue and Wolfe Road**

During the PM commute peak hour, southbound through traffic continuing onto southbound Wolfe Road often queued towards the Duane Avenue intersection while waiting for the green phase, but all cleared within one signal cycle. The eastbound left-turn movement often queued towards Maude Avenue, but all cleared within one signal cycle.

### **Fair Oaks Avenue and Maude Avenue**

During the PM commute peak hour, southbound through traffic was heavy. The upstream southbound right-turn movement at Wolfe Road that feeds the southbound through traffic at this intersection rarely received a red phase. As a result, when southbound through traffic at the Maude Avenue intersection received a red phase, southbound through vehicles queued past the upstream intersection towards Balsam Avenue. However, all vehicles cleared within one signal cycle. The eastbound through movement often queued past Worley Avenue and as a result, blocked the eastbound left-turn pocket. Some eastbound left-turn vehicles were unable to turn into the left-turn pocket and as a result had to wait one extra signal cycle to clear the intersection.

## **Wolfe Road and Arques Avenue**

During the PM commute peak hour, southbound through traffic was heavy. Because of the downstream queue at the Central Expressway ramps intersections, southbound through movement progression was often slow as it joined the downstream queue, but all vehicles cleared within one signal cycle. The westbound left-turn movement received heavy traffic and consistently required two signal cycles to clear.

## **Wolfe Road and Central Expressway Ramps Intersections**

The intersections on Wolfe Road at the Central Expressway eastbound and westbound ramps were operating as one intersection during the AM, PM school and PM commute peak hours. Based on the observed signal timing plans, Hexagon observed heavy southbound through movement traffic during the PM commute peak hour that consistently queued towards Arques Avenue. Because of the heavy traffic volumes combined with the southbound downstream queue at the Kifer Road intersection that queued towards the Central Expressway intersections, southbound vehicles consistently required two signal cycles to clear.

## **Central Expressway Loop Ramps at Mathilda Avenue**

Hexagon conducted field observations at the Central Expressway square loop ramps at the Mathilda Avenue interchange during all study periods. During the AM peak period, Central Expressway westbound was the peak commute direction. Because of the downstream signal at Mary Avenue, westbound Central Expressway frequently queued past the Mathilda Avenue interchange. Vehicles merging onto westbound Central Expressway from the two square loop on-ramps did not experience lengthy delays, as there were sufficient gaps. Most vehicles exiting westbound Central Expressway to Mathilda Avenue via Indio Way were observed to use the San Bernardino Way off ramp. Hexagon observed two cycles beginning at 8 AM where westbound Central Expressway vehicles exiting off to San Bernardino Way queued onto the westbound Central Expressway auxiliary lane towards the Sunnyvale Avenue overpass. The queues were contained within the auxiliary lane and did not spill onto the main travel lanes. Prior to and after the two cycles beginning at 8 AM, there were no issues for westbound Central Expressway vehicles exiting onto Indio Way. Central Expressway eastbound was the off-peak direction during the AM peak period, and there were no operational issues at the ramp junctions. Hexagon observed few bicycles on Central Expressway during the one-hour field observation in the morning. For the observed bicycles, there were no issues for bicycles travelling across the ramp junctions.

During the afternoon school peak period, there was light traffic on Central Expressway. Hexagon observed no operational issues at the square loop ramp junctions.

During the PM peak period, Central Expressway eastbound was the peak commute direction. There were no operational issues for vehicles exiting eastbound Central Expressway. Vehicles merging onto eastbound Central Expressway experienced minimal delay. Temporary queues of two to three vehicles occasionally formed at the Sobrante Way on-ramp. Queues dissipated within 30 seconds. There were no other operational issues observed at the square loop ramp junctions.

### 3.

## Background Conditions

---

This chapter presents background traffic conditions, which are defined as conditions just prior to completion of the proposed project. Traffic volumes for background conditions comprise volumes from existing traffic counts and traffic generated by other approved developments in the vicinity of the site. This chapter describes the procedure used to determine background traffic volumes and the resulting traffic conditions.

### Background Transportation Network

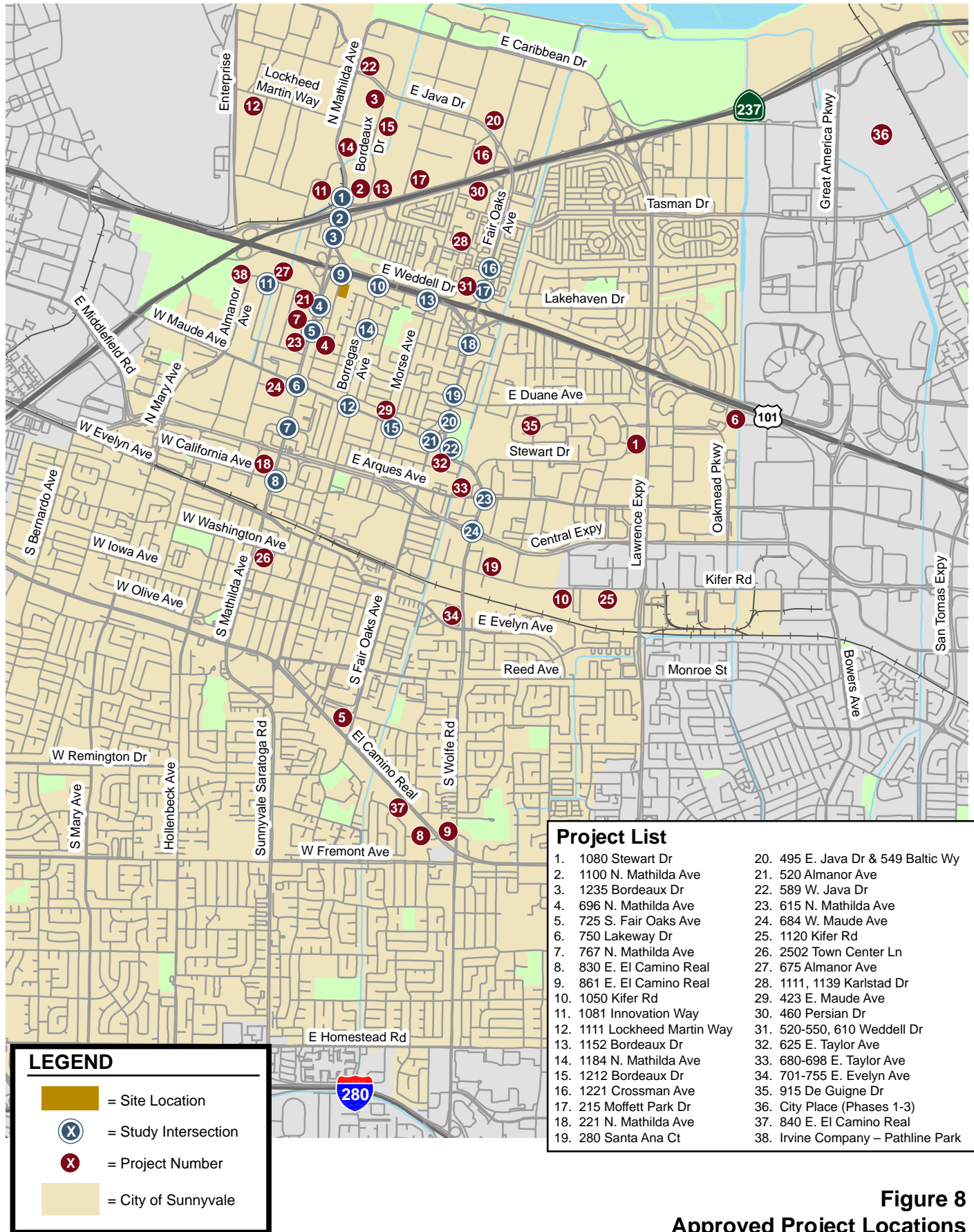
It is assumed in this analysis that the transportation network under background conditions, including roadways and intersection lane configurations, would be the same as that described under existing conditions at all study intersections. The Mathilda Avenue Improvements at SR 237 and US 101 project is currently under the design phase and is not expected to be completed prior to completion of the proposed project. This improvement is thus not assumed under background conditions.

### Background Traffic Volumes

Background traffic volumes were estimated for the project completion year by adding traffic from approved but not yet completed developments in the project area. The approved but not yet completed developments included in this study are show on Figure 8. Vehicle trips from each of the approved projects were obtained from the project's traffic impact study, if available. Trips generated during the PM school (2 to 4 PM) peak hour are typically not studied, and the ITE *Trip Generation, 9<sup>th</sup> Edition* lacks trip generation information during the PM school peak hour. Therefore, trips generated by approved projects during the PM school peak hour are estimated based on the PM commute (4 to 6 PM) peak hour trip generation at each intersection and factored based on the volumes at each intersection during the PM school and PM commute peak hours. The AM, PM school and PM commute peak hour traffic volumes under background conditions are shown on Figure 9.

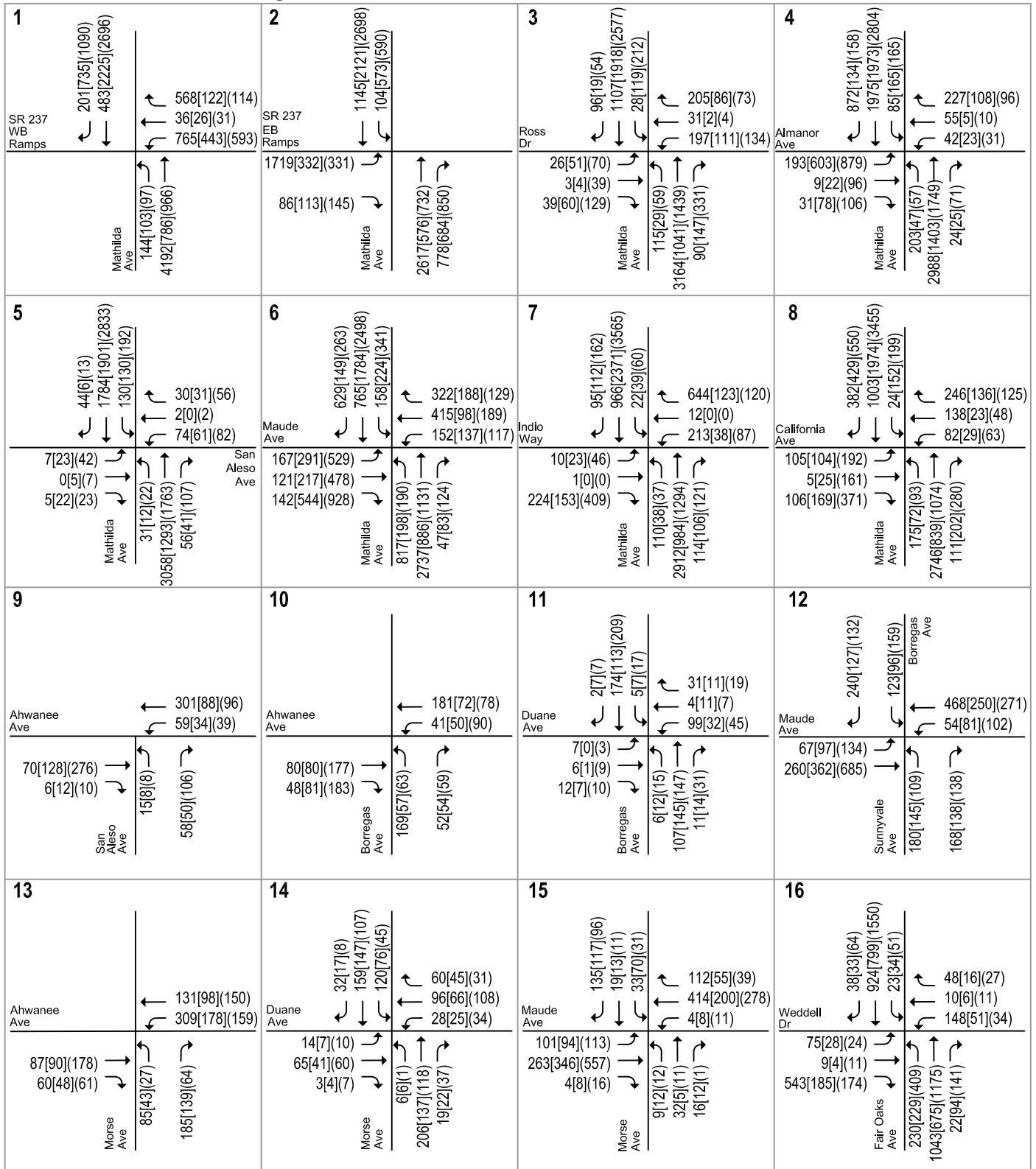


824 San Aleso Ave. Summit High School



**Figure 8**  
Approved Project Locations

824 San Aleso Ave. Summit High School



LEGEND

XX[XX](XX) = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 9  
Background Traffic Volumes





824 San Aleso Ave. Summit High School

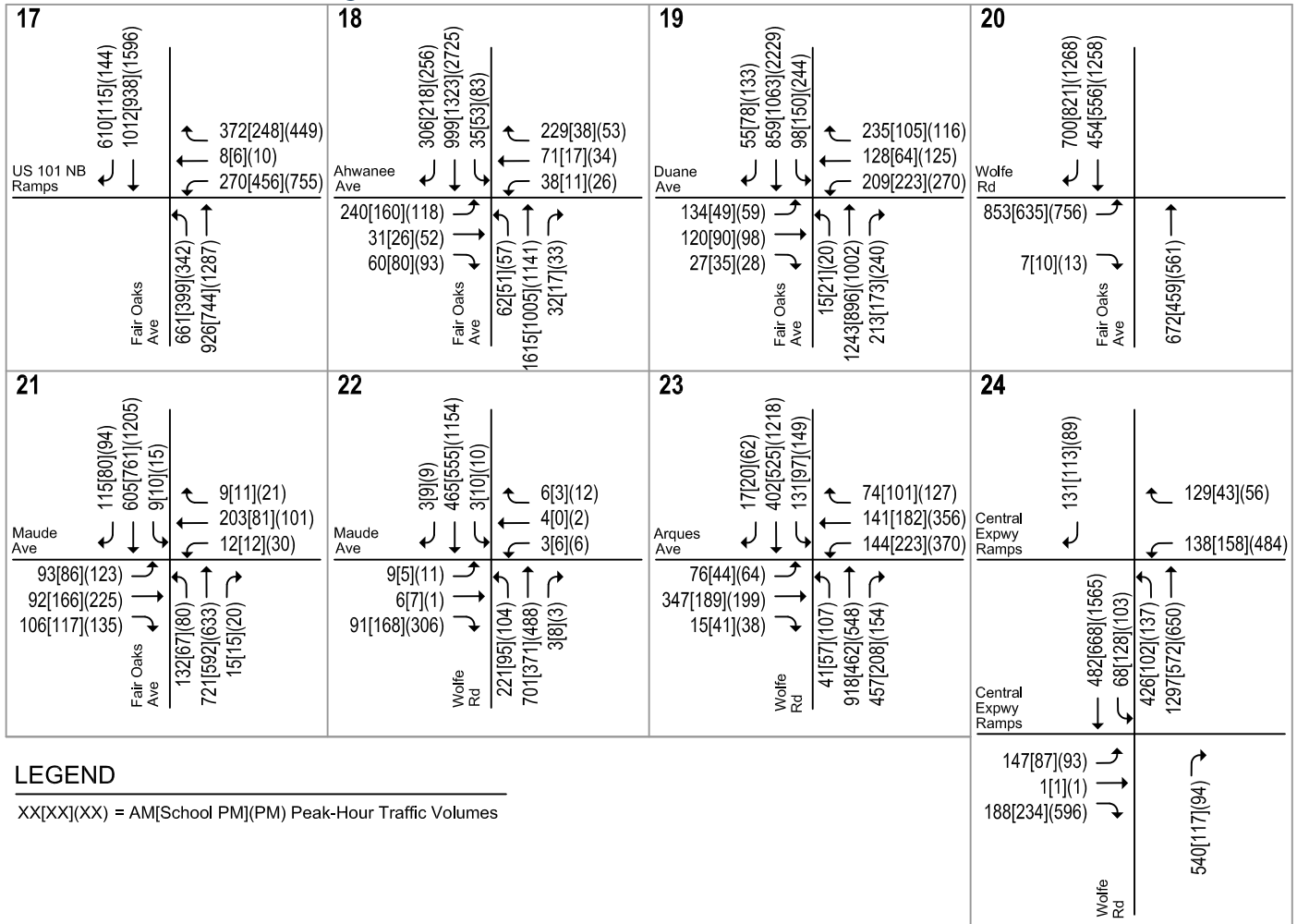


Figure 9  
Background Traffic Volumes

## Background Intersection Levels of Service

The results of the intersection level of service analysis under background conditions are summarized in Tables 8 and 9. The results of the analysis show that all signalized study intersections would operate at acceptable levels during all study periods. As shown on Table 9, the unsignalized study intersection at Wolfe Road and Maude Avenue would operate at an unacceptable LOS F for the worst movement during both the AM and PM commute peak hours. Signal warrants were conducted at this intersection under background conditions and found that the Peak Hour Signal Warrant would be met during the PM commute peak hour.

All other unsignalized study intersections would continue to operate at an acceptable level of service and peak hour signal warrants thus were not checked.

**Table 8**  
**Background Intersection Level of Service Summary – Signalized Intersections**

| #  | Intersection                           | Peak Hour | Count Date | LOS Std. | Existing         |     | Background       |     |
|----|--|-----------|------------|----------|------------------|-----|------------------|-----|
|    |  |           |            |          | Avg. Delay (sec) | LOS | Avg. Delay (sec) | LOS |
| 1  | Mathilda Ave & SR 237 WB Ramps         | AM*       | 11/00/15   | E        | 23.8             | C   | 61.4             | E   |
|    |  | School PM | 05/16/17   |          | 19.8             | B-  | 17.0             | B   |
|    |  | PM*       | 11/00/15   |          | 20.7             | C+  | 51.2             | D-  |
| 2  | Mathilda Ave & SR 237 EB Ramps         | AM*       | 11/00/15   | E        | 21.9             | C+  | 48.0             | D   |
|    |  | School PM | 05/16/17   |          | 17.7             | B   | 25.1             | C   |
|    |  | PM*       | 11/00/15   |          | 68.2             | E   | 53.6             | D-  |
| 3  | Mathilda Ave & Ross Dr                 | AM*       | 11/00/15   | E        | 11.9             | B+  | 11.7             | B+  |
|    |  | School PM | 05/16/17   |          | 16.7             | B   | 14.3             | B   |
|    |  | PM*       | 11/00/15   |          | 39.1             | D   | 54.9             | D-  |
| 4  | Mathilda Ave & Almanor Ave             | AM        | 11/00/15   | E        | 24.0             | C   | 26.6             | C   |
|    |  | School PM | 05/16/17   |          | 21.9             | C+  | 30.9             | C   |
|    |  | PM        | 11/00/15   |          | 27.2             | C   | 41.1             | D   |
| 5  | Mathilda Ave & San Aleso Ave           | AM        | 11/00/15   | E        | 9.6              | A   | 14.0             | B   |
|    |  | School PM | 05/16/17   |          | 9.8              | A   | 9.8              | A   |
|    |  | PM        | 11/00/15   |          | 12.9             | B   | 16.3             | B   |
| 6  | Mathilda Ave & Maude Ave               | AM        | 11/00/15   | E        | 41.6             | D   | 50.1             | D   |
|    |  | School PM | 05/16/17   |          | 30.2             | C   | 34.0             | C-  |
|    |  | PM        | 11/00/15   |          | 44.9             | D   | 63.1             | E   |
| 7  | Mathilda Ave & Indio Ave               | AM        | 11/00/15   | E        | 29.6             | C   | 41.6             | D   |
|    |  | School PM | 05/16/17   |          | 10.4             | B+  | 10.6             | B+  |
|    |  | PM        | 11/00/15   |          | 23.7             | C   | 26.2             | C   |
| 8  | Mathilda Ave & California Ave          | AM        | 11/00/15   | E        | 25.4             | C   | 30.4             | C   |
|    |  | School PM | 05/16/17   |          | 17.6             | B   | 19.1             | B-  |
|    |  | PM        | 11/00/15   |          | 28.5             | C   | 35.7             | D+  |
| 12 | Sunnyvale Ave/Borregas Ave & Maude Ave | AM        | 05/16/17   | D        | 41.1             | D   | 40.7             | D   |
|    |  | School PM | 05/16/17   |          | 32.7             | C-  | 32.4             | C-  |
|    |  | PM        | 05/16/17   |          | 29.3             | C   | 29.8             | C   |
| 16 | Fair Oaks Ave & Weddell Dr             | AM        | 04/04/17   | D        | 17.2             | B   | 20.4             | C+  |
|    |  | School PM | 12/02/15   |          | 20.0             | C+  | 19.5             | B-  |
|    |  | PM        | 04/04/17   |          | 16.5             | B   | 18.2             | B-  |
| 17 | Fair Oaks Ave & US 101 NB Ramps        | AM        | 04/04/17   | E        | 23.4             | C   | 37.8             | D+  |
|    |  | School PM | 12/02/15   |          | 20.0             | C+  | 22.2             | C+  |
|    |  | PM        | 04/04/17   |          | 27.4             | C   | 46.3             | D   |
| 18 | Fair Oaks Ave & Ahwanee Ave            | AM        | 04/04/17   | D        | 22.3             | C+  | 21.7             | C+  |
|    |  | School PM | 12/02/15   |          | 18.2             | B-  | 17.4             | B   |
|    |  | PM        | 04/04/17   |          | 13.9             | B   | 14.8             | B   |
| 19 | Fair Oaks Ave & Duane Ave              | AM        | 04/04/17   | D        | 34.6             | C-  | 33.6             | C-  |
|    |  | School PM | 12/02/15   |          | 30.5             | C   | 29.9             | C   |
|    |  | PM        | 04/04/17   |          | 31.4             | C   | 34.5             | C-  |
| 20 | Fair Oaks Ave & Wolfe Rd               | AM        | 04/04/17   | D        | 16.0             | B   | 17.3             | B   |
|    |  | School PM | 12/02/15   |          | 13.4             | B   | 14.0             | B   |
|    |  | PM        | 04/04/17   |          | 14.1             | B   | 15.6             | B   |
| 21 | Fair Oaks Ave & Maude Ave              | AM        | 05/16/17   | D        | 27.1             | C   | 32.6             | C-  |
|    |  | School PM | 12/02/15   |          | 29.0             | C   | 29.1             | C   |
|    |  | PM        | 05/16/17   |          | 31.2             | C   | 32.6             | C-  |
| 23 | Wolfe Rd & Arques Ave                  | AM        | 04/04/17   | D        | 40.5             | D   | 41.7             | D   |
|    |  | School PM | 12/02/15   |          | 39.3             | D   | 38.8             | D+  |
|    |  | PM        | 04/04/17   |          | 40.4             | D   | 41.0             | D   |
| 24 | Wolfe Rd & Central Expwy Ramps         | AM        | 04/04/17   | E        | 37.9             | D+  | 39.6             | D   |
|    |  | School PM | 12/02/15   |          | 41.3             | D   | 42.8             | D   |
|    |  | PM        | 04/04/17   |          | 62.8             | E   | 73.9             | E   |

**Notes:**  
\* Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

**Table 9**  
**Background Intersection Level of Service Summary – Unsignalized Intersections**

| #  | Intersection                | Control                       | Peak Hour | Count    | Date        | Existing    |            |                                 | Background  |            |                                 |
|----|-----------------------------|-------------------------------|-----------|----------|-------------|-------------|------------|---------------------------------|-------------|------------|---------------------------------|
|    |                             |                               |           |          |             | Delay (sec) | LOS        | Signal Warrant Met <sup>3</sup> | Delay (sec) | LOS        | Signal Warrant Met <sup>3</sup> |
| 9  | San Aleso Ave & Ahwanee Ave | Side-Street Stop <sup>1</sup> | AM        | 05/16/17 | 9.7         | A           | -          | 9.7                             | A           | -          |                                 |
|    |                             |                               | School PM | 05/16/17 | 9.3         | A           | -          | 9.4                             | A           | -          |                                 |
|    |                             |                               | PM        | 05/16/17 | 10.5        | B           | -          | 10.7                            | B           | -          |                                 |
| 10 | Borregas Ave & Ahwanee Ave  | All-Way Stop <sup>2</sup>     | AM        | 05/16/17 | 9.0         | A           | -          | 9.2                             | A           | -          |                                 |
|    |                             |                               | School PM | 05/16/17 | 7.9         | A           | -          | 7.9                             | A           | -          |                                 |
|    |                             |                               | PM        | 05/16/17 | 9.2         | A           | -          | 9.4                             | A           | -          |                                 |
| 11 | Borregas Ave & Duane Ave    | Side-Street Stop <sup>1</sup> | AM        | 05/16/17 | 11.6        | B           | -          | 11.7                            | B           | -          |                                 |
|    |                             |                               | School PM | 05/16/17 | 10.7        | B           | -          | 10.9                            | B           | -          |                                 |
|    |                             |                               | PM        | 05/16/17 | 12.0        | B           | -          | 12.2                            | B           | -          |                                 |
| 13 | Morse Ave & Ahwanee Ave     | Side-Street Stop <sup>1</sup> | AM        | 05/16/17 | 18.5        | C           | -          | 19.3                            | C           | -          |                                 |
|    |                             |                               | School PM | 05/16/17 | 11.3        | B           | -          | 11.4                            | B           | -          |                                 |
|    |                             |                               | PM        | 05/16/17 | 11.7        | B           | -          | 11.8                            | B           | -          |                                 |
| 14 | Morse Ave & Duane Ave       | All-Way Stop <sup>2</sup>     | AM        | 05/16/17 | 10.4        | B           | -          | 10.5                            | B           | -          |                                 |
|    |                             |                               | School PM | 05/16/17 | 8.8         | A           | -          | 9.0                             | A           | -          |                                 |
|    |                             |                               | PM        | 05/16/17 | 8.6         | A           | -          | 8.8                             | A           | -          |                                 |
| 15 | Morse Ave & Maude Ave       | Side-Street Stop <sup>1</sup> | AM        | 05/16/17 | 14.5        | B           | -          | 15.8                            | C           | -          |                                 |
|    |                             |                               | School PM | 05/16/17 | 13.2        | B           | -          | 14.2                            | B           | -          |                                 |
|    |                             |                               | PM        | 05/16/17 | 16.2        | C           | -          | 17.8                            | C           | -          |                                 |
| 22 | Wolfe Rd & Maude Ave        | Side-Street Stop <sup>1</sup> | AM        | 05/25/17 | 26.5        | D           | No         | <b>50.3</b>                     | <b>F</b>    | <b>No</b>  |                                 |
|    |                             |                               | School PM | 05/25/17 | 20.4        | C           | -          | 25.4                            | D           | -          |                                 |
|    |                             |                               | PM        | 05/25/17 | <b>50.4</b> | <b>F</b>    | <b>Yes</b> | <b>&gt;60</b>                   | <b>F</b>    | <b>Yes</b> |                                 |

**Notes:**

- Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
- Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections represent intersection average.
- The CAMUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

**BOLD** indicates unacceptable level of service

## 4. Project Conditions

---

This chapter describes the method by which project traffic is estimated, roadway traffic operations under background plus project conditions and existing plus project conditions, and any impacts caused by the project. Existing plus project traffic conditions could potentially occur if the project were to be occupied prior to the other approved projects in the area. However, it is unlikely that this traffic condition would occur, since some of the other approved projects expected to add traffic to the study area would likely be built and occupied during the time this project is going through the development review process.

### Project Description

The project proposes to re-purpose the existing building (25,100 s.f.) on-site into a 17-classroom high school with a 400-student capacity and 25 full-time staff. The site would be accessed via the existing driveways. The southern driveway would be a right-turn inbound-only driveway, and the northern driveway would be a right-turn outbound-only driveway.

Staff are expected to arrive between 7 AM and 7:15 AM, and depart between 4 PM and 7 PM. Students are expected to arrive between 7:45 AM and 8:15 PM. 75% of students are dismissed between 3:25 PM and 3:45 PM, with the remaining 25% of students dismissed at 5 PM.

### Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM, PM school and PM commute peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

## Trip Generation

### Trip Generation Rates

Summit Public Schools (the project applicant) conducted a traffic survey in January 2016 of its other schools within the Bay Area and found that on average, for every 100 students:

- 67 cars arrive each morning, bringing 85 students to school
  - 7 of these cars are driven by students and remain parked at school
  - The remaining 60 cars are driven by parents/guardians and depart the school after drop off
- 59 cars leave the school in the afternoon, taking 77 students

Based on the survey results, for every 100 students, Summit schools generate 127 trips in the morning with 67 inbound trips and 60 outbound trips, and generate 111 trips in the afternoon with 52 inbound trips (59 departure cars minus the 7 student-driven cars) and 59 outbound trips. This equates to a trip generation rate of 1.27 trips per student in the morning with 53% inbound trips and 1.11 trips per student in the afternoon with 47% inbound trips. Since all students at the proposed school are expected to arrive during the AM peak hour, the project trip generation rate during the AM peak hour is assumed to be 1.27 trips per student. Since the proposed school would dismiss 75% of all students during the PM school peak hour (2 to 4 PM), the project trip generation rate during the PM school peak hour is assumed to be 0.83 trips per student. The remaining 25% of all students would be dismissed during the PM commute peak hour (4 to 6 PM), and the trip generation rate is assumed to be 0.28 trips per student. As shown on Table 10, in comparison to the average trip generation rates reported in Institute of Transportation Engineers (ITE) *Trip Generation, 9<sup>th</sup> Edition* for a high school (Land Use Code 530), which reports a trip generation rate of 0.43, 0.29, and 0.13 trips per student during the AM, PM school, and PM commute peak hours, the assumed trip generation rates derived from the applicant survey are approximately one to two times greater. Therefore, using the trip generation rates derived from the applicant survey would be a conservative approach.

**Table 10**  
**Project Trip Generation Rates Comparison with ITE Rates**

| Source   | Peak Hour Trip Generation Rates (trips per student) <sup>3</sup> |                |                 |
|--|--|----------------|-----------------|
|  | AM Peak  | School PM Peak | Commute PM Peak |
| Applicant Survey <sup>1</sup>  | 1.27   | 0.83           | 0.28            |
| ITE <sup>2</sup>   | 0.43   | 0.29           | 0.13            |
| <b>% greater than ITE rates</b>  | <b>195%</b>  | <b>186%</b>    | <b>115%</b>     |
| <b>Notes:</b>  |  |                |                 |
| 1. The survey was conducted by Summit Public Schools, dated January 2016.  |  |                |                 |
| 2. ITE <i>Trip Generation, 9<sup>th</sup> Edition</i> , Land Use Code 530: High School, average rates  |  |                |                 |
| 3. Trip generation rates are based on trips per student. AM peak hour is between 7 AM and 9 AM. School PM peak hour is between 2 PM and 4 PM. Commute PM peak hour is between 4 PM and 6 PM. |  |                |                 |

### Trip Generation

Using the trip generation rates derived from the applicant survey, the project with 400 students is estimated to generate 508 student trips (268 in and 240 out) during the AM peak hour, 332 student trips (156 in and 176 out) during the PM school peak hour, and 112 student trips (53 in and 59 out) during the PM commute peak hour. As a conservative approach, it is assumed that each staff would generate one inbound trip during the AM peak hour and one outbound trip during the PM commute peak hour. The project with 25 staff is estimated to generate 25 inbound trips during the AM peak hour and 25 outbound trips during the PM commute peak hour. Therefore, the project is estimated to generate a gross 533 trips (293 in and 240 out) during the AM peak hour, 332 trips (156 in and 176 out) during the PM school peak hour, and 137 trips (53 in and 84 out) during the PM commute peak hour.

The existing project site is occupied by a 25,100 s.f. light industrial building. Using the average trip generation rates for a typical light industrial building (Land Use Code 110) reported in the ITE *Trip Generation, 9<sup>th</sup> Edition*, the existing building on-site is estimated to currently generate 23 trips (20 in and 3 out) during the AM peak hour and 24 trips (3 in and 21 out) during the PM commute peak hour. The ITE *Trip Generation, 9<sup>th</sup> Edition* does not report trip generation rates for a light industrial building during the PM school peak hour. Therefore, the trip generation rate for the existing building on-site during the PM school peak hour is estimated using the PM commute peak hour trip generation and the ratio of traffic volume at the Mathilda Avenue and San Aleso Avenue intersection between the PM school and PM commute peak hours. It is estimated the existing building on-site is currently generating 17 trips (2 in and 15 out) during the PM school peak hour.

After accounting for the trips generated by the existing building on-site, the project is expected to generate a net 510 trips (273 in and 237 out) during the AM peak hour, 315 trips (154 in and 161 out) during the PM school peak hour, and 113 trips (50 in and 63 out) during the PM commute peak hour (see Table 11).

**Table 11**  
**Project Trip Generation Estimates**

| Land Use  | Size | Unit     | Daily |              | AM Peak Hour |            |            | PM School Peak Hour |      |            | PM Commute Peak Hour |            |      |           |           |            |
|---|------|----------|-------|--------------|--------------|------------|------------|---------------------|------|------------|----------------------|------------|------|-----------|-----------|------------|
|   |      |          | Rate  | Trips        | Rate         | In         | Out        | Total               | Rate | In         | Out                  | Total      | Rate | In        | Out       | Total      |
| <b><u>Proposed Land Use (P)</u></b>   |      |          |       |              |              |            |            |                     |      |            |                      |            |      |           |           |            |
| High School <sup>1</sup>  | 400  | students |       |              | 1.27         | 268        | 240        | 508                 | 0.83 | 156        | 176                  | 332        | 0.28 | 53        | 59        | 112        |
|   | 25   | staff    |       |              | 1.00         | 25         | 0          | 25                  | 0.00 | 0          | 0                    | 0          | 1.00 | 0         | 25        | 25         |
|   |      | Total    |       | 2,132        |              | 293        | 240        | 533                 |      | 156        | 176                  | 332        |      | 53        | 84        | 137        |
| <b><u>Existing Land Use (E)</u></b>   |      |          |       |              |              |            |            |                     |      |            |                      |            |      |           |           |            |
| Light Industrial <sup>2</sup>   | 25.1 | ksf      | 6.97  | 175          | 0.92         | 20         | 3          | 23                  | 0.68 | 2          | 15                   | 17         | 0.97 | 3         | 21        | 24         |
| <b>Net Project Trip Generation (P - E)</b>  |      |          |       | <b>1,957</b> |              | <b>273</b> | <b>237</b> | <b>510</b>          |      | <b>154</b> | <b>161</b>           | <b>315</b> |      | <b>50</b> | <b>63</b> | <b>113</b> |
| <b>Notes:</b>   |      |          |       |              |              |            |            |                     |      |            |                      |            |      |           |           |            |
| 1. Trip generation for the proposed high school is based on survey results conducted at other Summit schools. The survey was conducted by Summit Public Schools, dated January 2016. Daily trip generation is assumed to be 4 times the AM peak hour trip generation, according to the Institute of Transportation Engineers Trip Generation, 9th Edition.  |      |          |       |              |              |            |            |                     |      |            |                      |            |      |           |           |            |
| 2. Daily, AM and PM commute peak hour trip generations are based on the average trip generation rates published in the Institute of Transportation Engineers <i>Trip Generation, 9th Edition (Land Use Code: 110)</i> . PM school peak hour trip generation is estimated based on intersection volumes at the Mathilda Ave/San Aleso Ave intersection and the PM commute peak hour trip generation rates. |      |          |       |              |              |            |            |                     |      |            |                      |            |      |           |           |            |



## Trip Distribution and Assignment

Trips generated by parents/students of the proposed project were distributed to the study network based on the existing travel patterns on the surrounding roadway system, locations of complementary land uses, and the existing zip code data for the Denali (Summit) Middle School located at 539 E. Weddell Drive, provided by the project applicant (see Figure 10). Trips generated by school staff and by the existing light-industrial land use were distributed to the study network based on the existing travel patterns on the surrounding roadway system and locations of complementary land uses (see Figure 11).

The project trips were assigned to the roadway network based on the directions of approach and departure, the roadway network connections, and the location of project driveways (see Figure 12). Project trips were assigned to the roadway network with the following assumption:

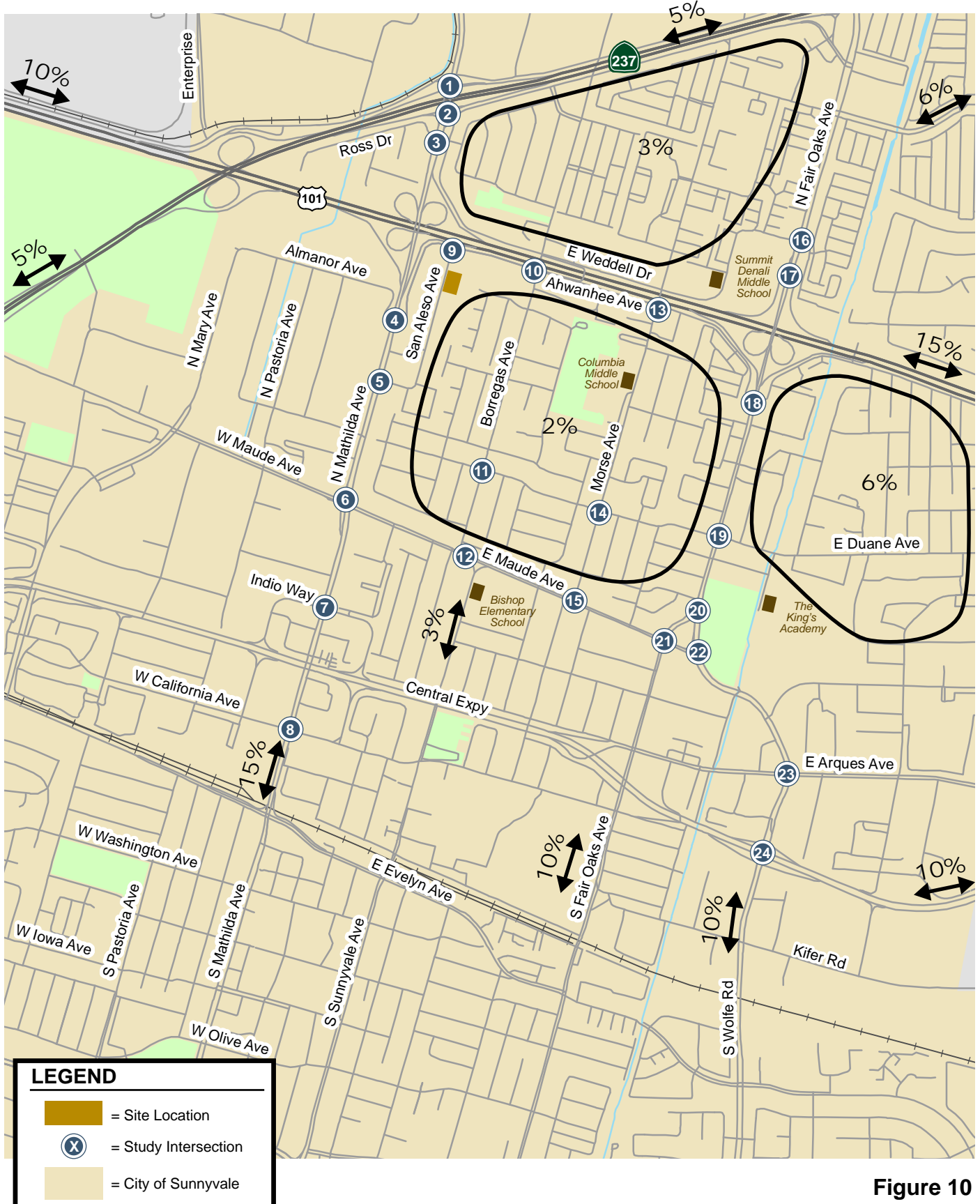
- The project inbound driveway is proposed to be a right-turn inbound-only driveway. All inbound project vehicles are assigned to turn onto San Aleso Avenue from the intersection at Mathilda Avenue and San Aleso Avenue.
- The project outbound driveway is proposed to be a right-turn outbound-only driveway. All outbound project vehicles are assigned to exit onto northbound San Aleso Avenue and turn either left or right at the intersection at San Aleso Avenue and Ahwanee Avenue, depending on their destination.

## Project Condition Traffic Volumes

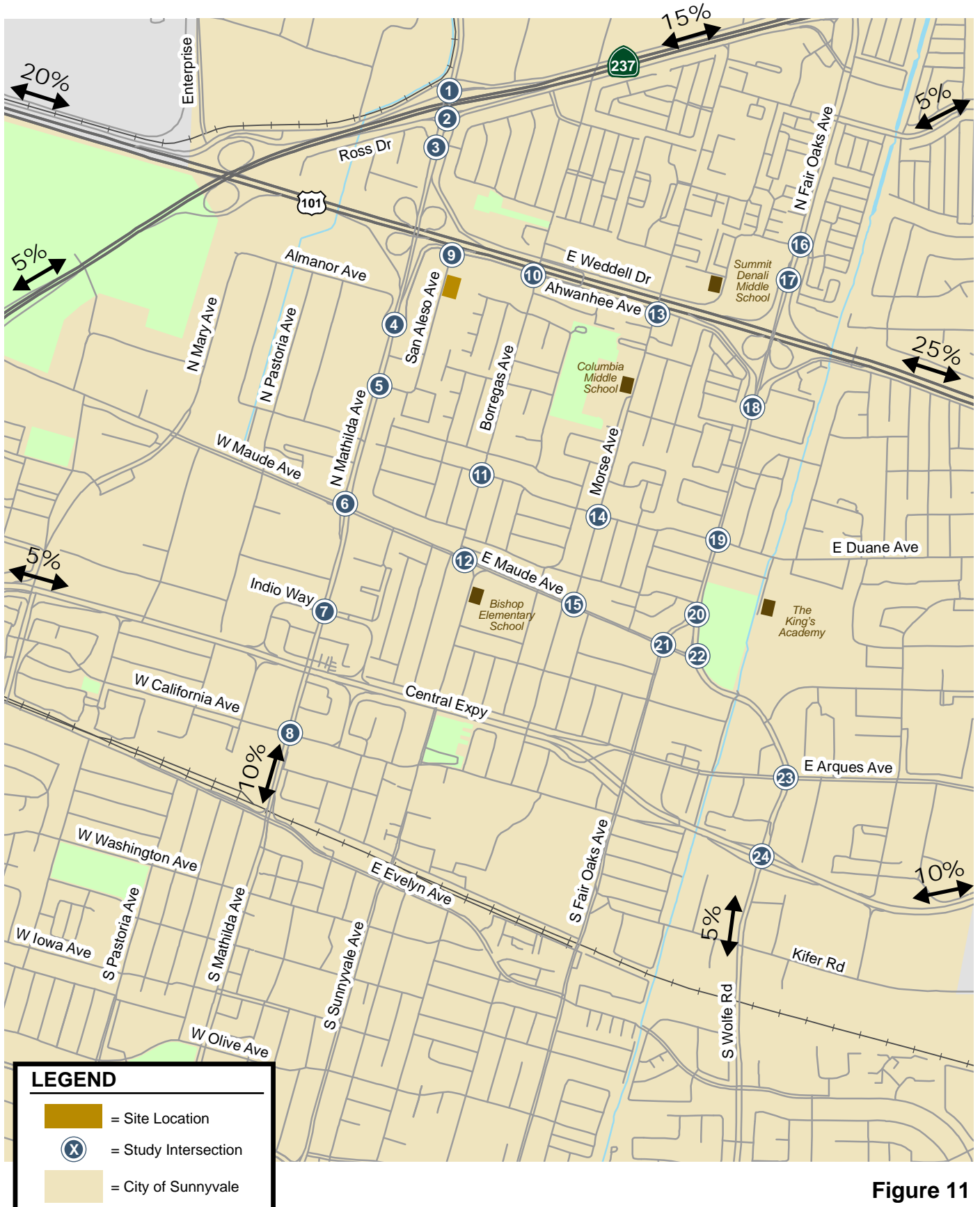
Project impacts were evaluated relative to both (1) background traffic volumes and (2) existing traffic volumes. For the background plus project scenario, the net new trips generated by the project were added to the background traffic volumes (described in Chapter 3) to derive the background plus project traffic volumes (see Figure 13). For the existing plus project scenario, the net new trips generated by the project were added to the existing traffic volumes (described in Chapter 2) to derive the existing plus project traffic volumes (see Figure 14).

## Transportation Network Under Project Conditions

It is assumed in this analysis that the transportation network under project conditions, including roadways and intersection lane configurations would be the same as that described under the no-project conditions.

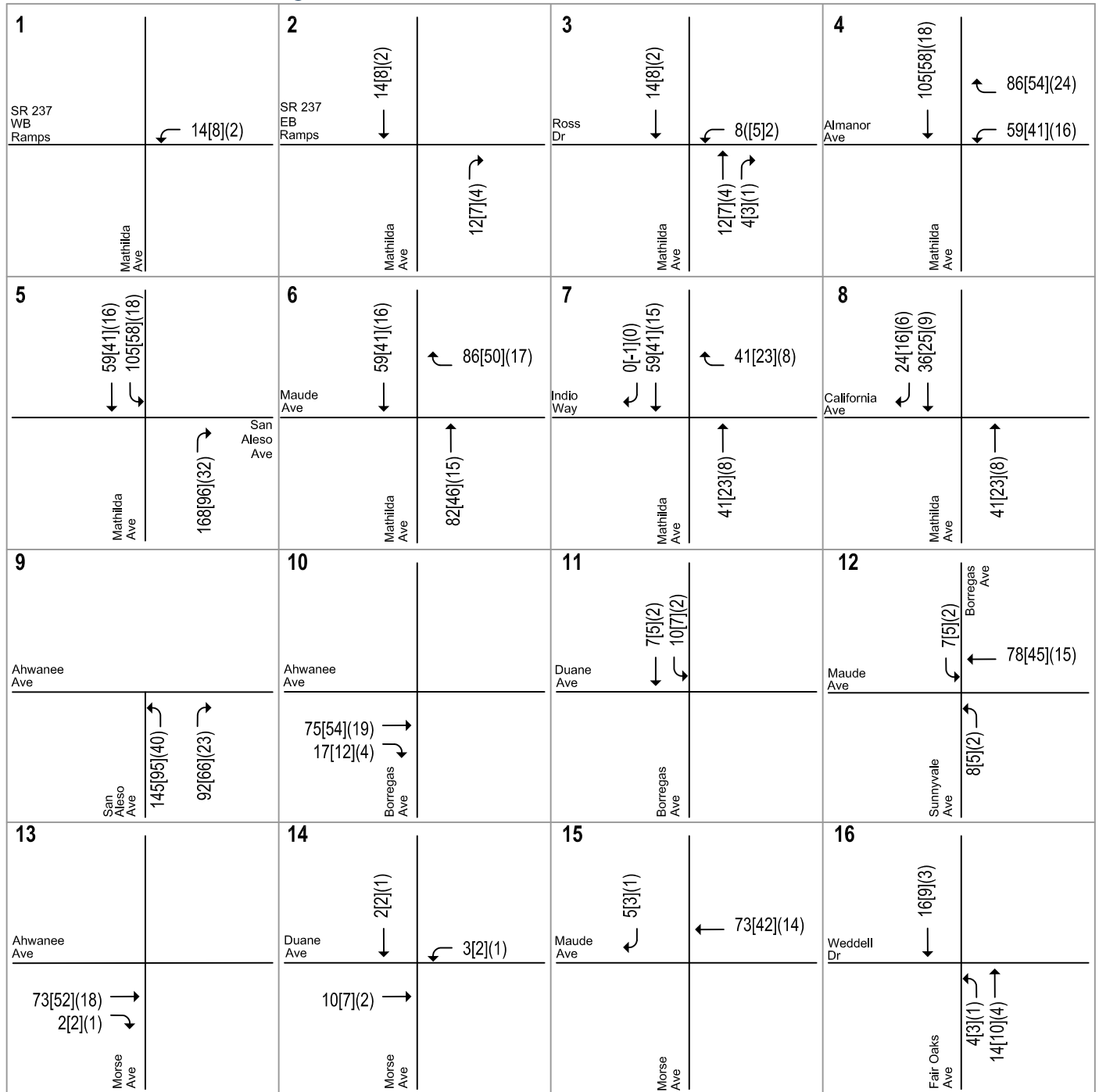


**Figure 10**  
Project Trip Distribution - Parent/Student Trips



**Figure 11**  
**Project Trip Distribution - School Staff and Light Industrial Trips**

824 San Aleso Ave. Summit High School

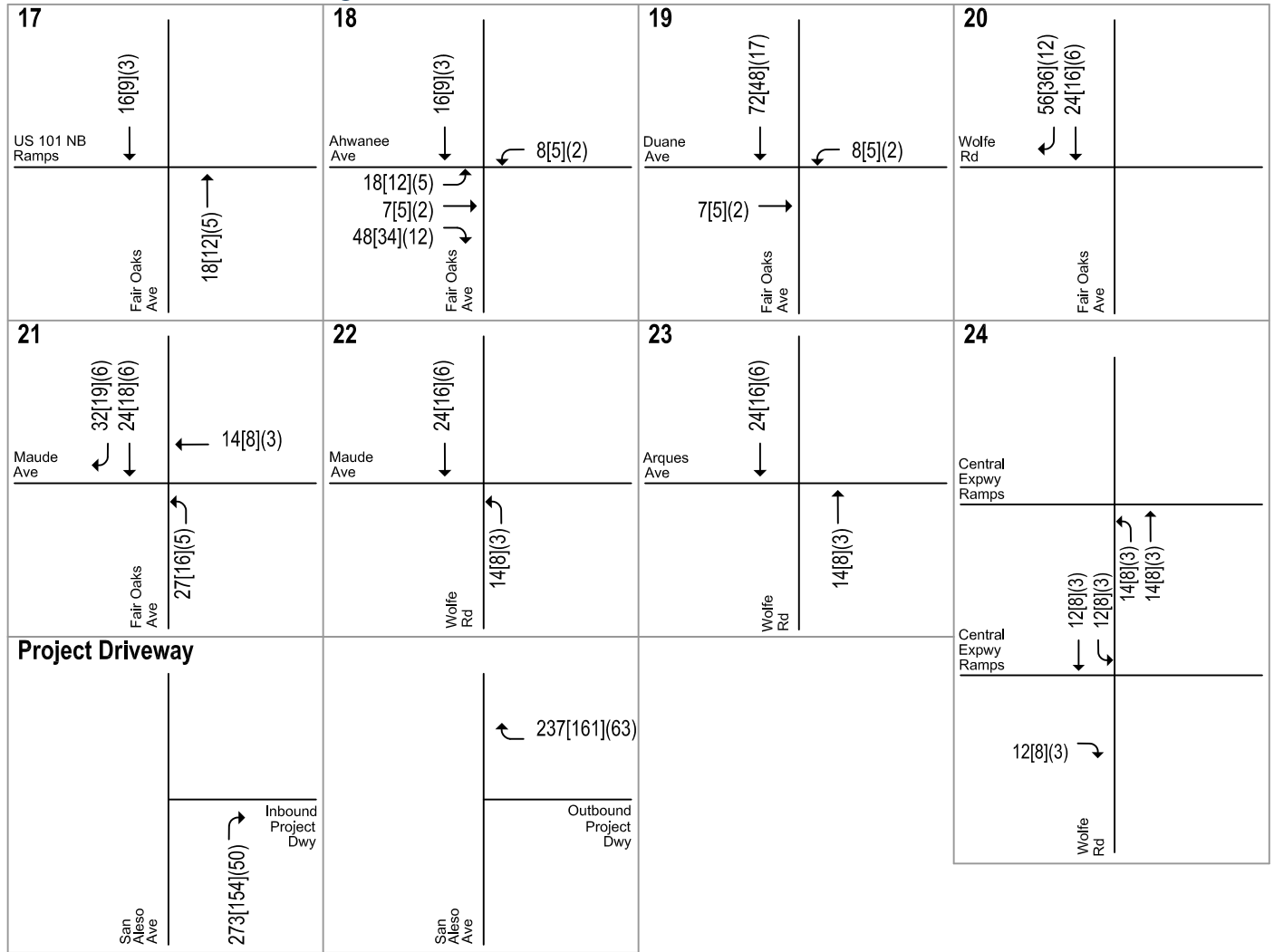


LEGEND

XX[XX](XX) = AM[School PM](PM) Peak-Hour Trips

Figure 12  
Project Trip Assignment

824 San Aleso Ave. Summit High School

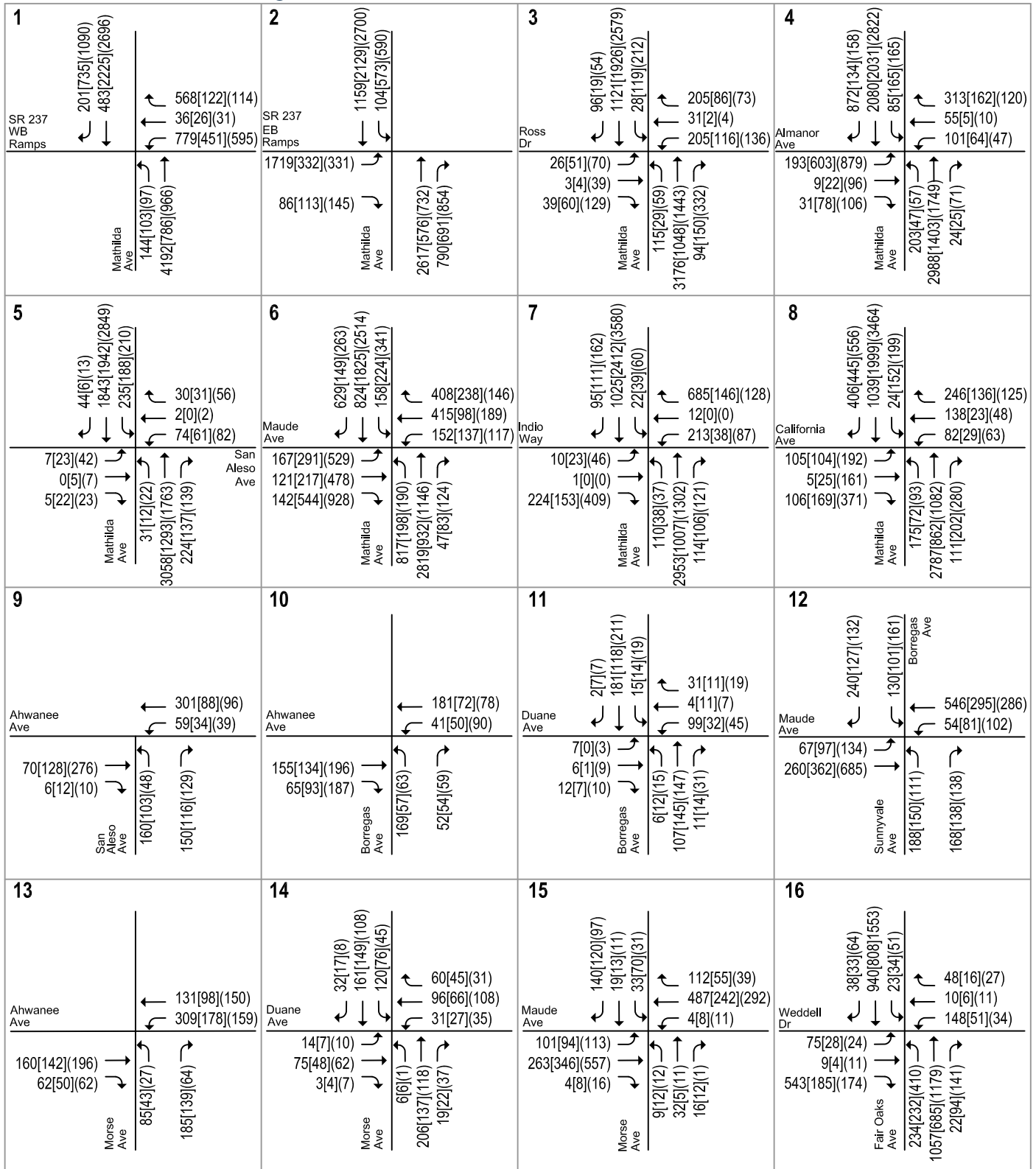


**LEGEND**

XX[XX](XX) = AM[School PM](PM) Peak-Hour Trips

**Figure 12**  
**Project Trip Assignment**

824 San Aleso Ave. Summit High School



LEGEND

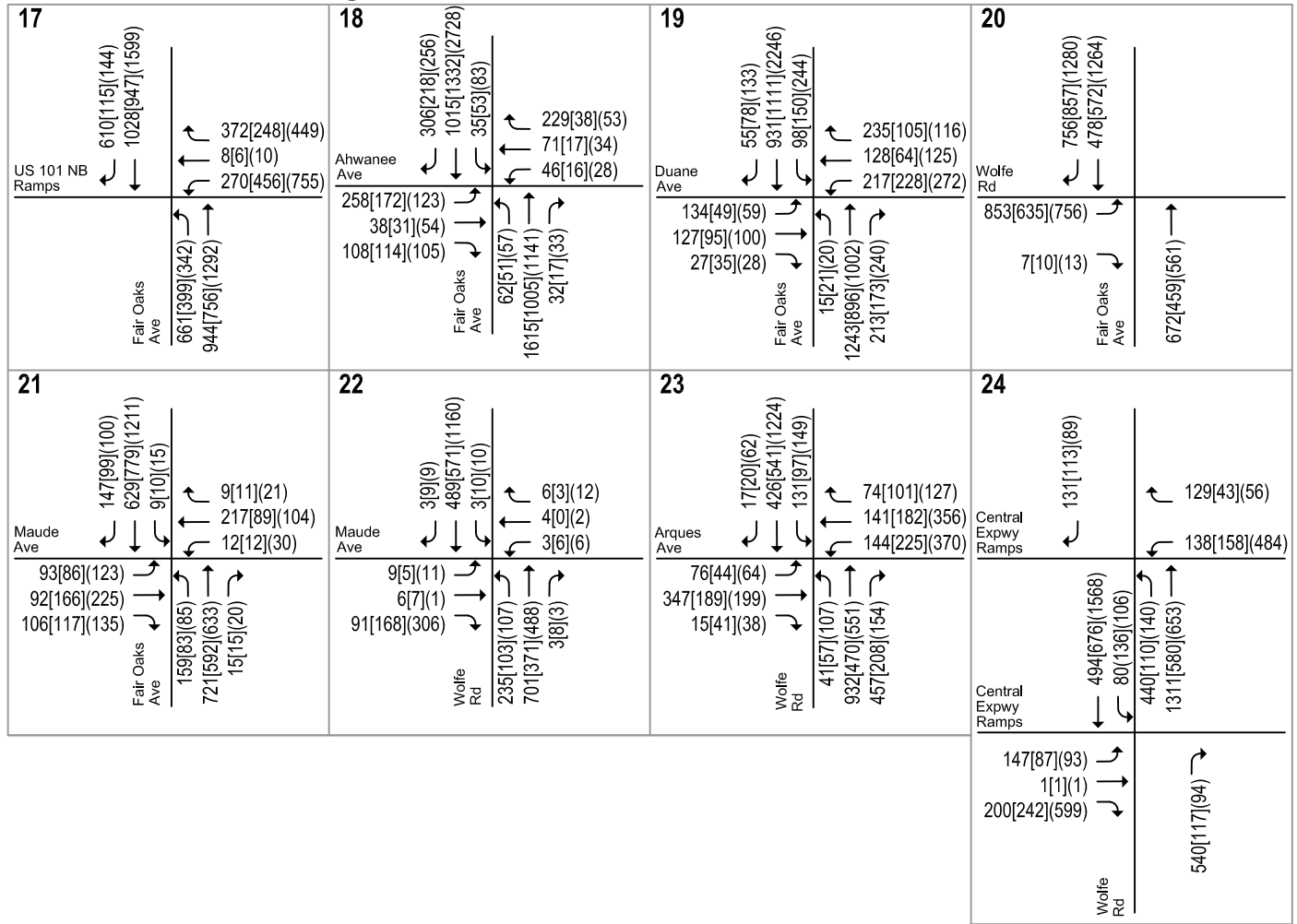
XX[XX](XX) = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 13  
Background Plus Project Traffic Volumes





824 San Aleso Ave. Summit High School



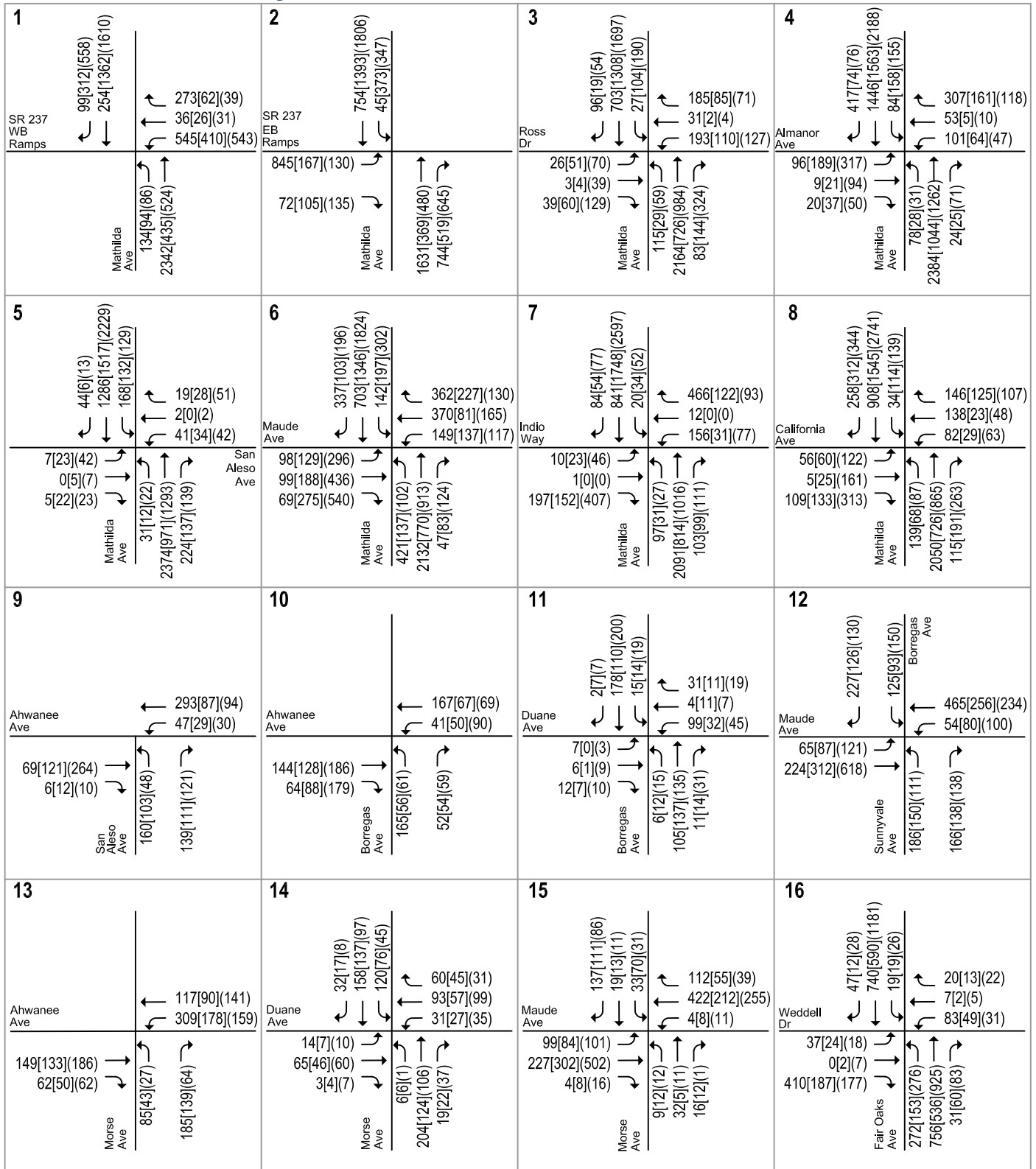
LEGEND

XX[XX](XX) = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 13  
Background Plus Project Traffic Volumes



824 San Aleso Ave. Summit High School



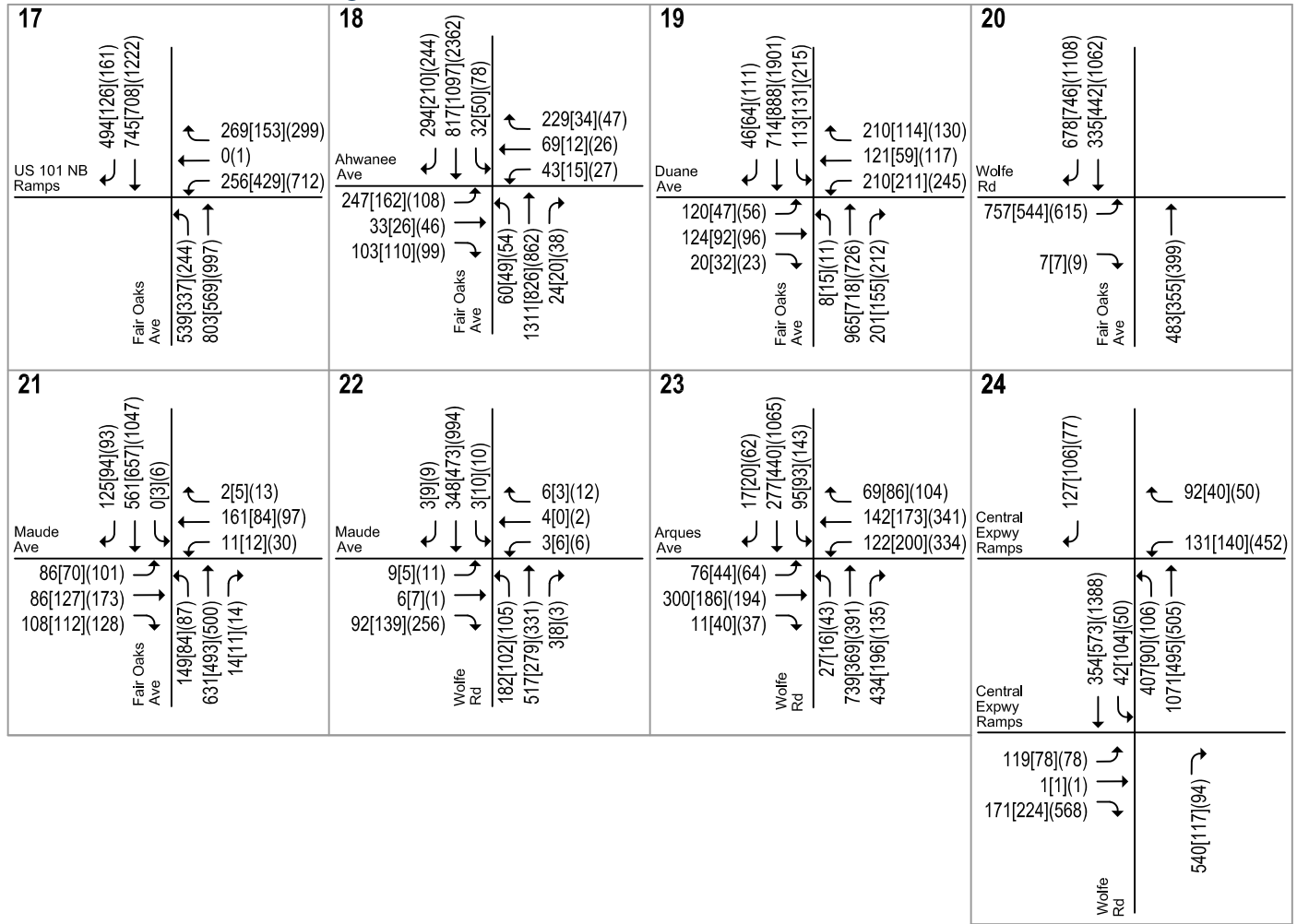
LEGEND

XX[XX](XX) = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 14  
Existing Plus Project Traffic Volumes



824 San Aleso Ave. Summit High School



LEGEND

XX[XX](XX) = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 14  
Existing Plus Project Traffic Volumes

## Background plus Project Intersection Levels of Service

The results of the intersection level of service analysis under background plus project conditions show that all signalized study intersections would operate at acceptable levels during all study periods (see Table 12). As shown in Table 13, the unsignalized study intersection at Wolfe Road and Maude Avenue would operate at an unacceptable LOS F for the worst movement during both the AM and PM commute peak hours. Signal warrants were checked at this intersection under background plus project conditions and found that the Peak Hour Signal Warrant would be met during the PM commute peak hour.

All other unsignalized intersections would continue to operate at an acceptable level of service, and peak hour signal warrants thus were not checked.

Based on City of Sunnyvale intersection impact criteria, the project would not generate a significant intersection impact at any study intersections. While the project would not generate a significant intersection impact at the unsignalized intersection at Wolfe Road and Maude Avenue, the City of Sunnyvale is currently studying design options for signalizing this intersection. It is expected that installing a traffic signal at this intersection would restore intersection operations to acceptable levels of service. The project will pay the Sunnyvale Traffic Impact Fee (TIF), which contributes funds towards signalization of unsignalized intersections.

## Existing plus Project Intersection Levels of Service

The results of the intersection level of service analysis under existing plus project conditions are summarized in Tables 14 and 15. The results of the analysis show that all study intersections would operate at acceptable levels during all study periods, except the unsignalized intersection at Wolfe Road and Maude Avenue would operate at an unacceptable LOS F for the worst movement during the PM commute peak hour. Signal warrants were checked at this intersection under existing plus project conditions and found that the Peak Hour Signal Warrant would be met during the PM commute peak hour. Because the remaining unsignalized intersections would be operating at acceptable levels of service under existing plus project conditions, peak hour signal warrants were not checked.

**Table 12**  
**Background plus Project Level of Service Summary – Signalized Intersections**

| #  | Intersection                           | Peak Hour | LOS Std. | Background       |     | Background plus Project |     |                            |                    |
|----|--|-----------|----------|------------------|-----|-------------------------|-----|----------------------------|--------------------|
|    |  |           |          | Avg. Delay (sec) | LOS | Avg. Delay (sec)        | LOS | Incr. In Crit. Delay (sec) | Incr. In Crit. V/C |
| 1  | Mathilda Ave & SR 237 WB Ramps         | AM *      | E        | 61.4             | E   | 62.6                    | E   | 0.0                        | 0.000              |
|    |  | School PM |          | 17.0             | B   | 17.2                    | B   | 0.1                        | 0.003              |
|    |  | PM *      |          | 51.2             | D-  | 51.3                    | D-  | 0.5                        | 0.000              |
| 2  | Mathilda Ave & SR 237 EB Ramps         | AM *      | E        | 48.0             | D   | 48.3                    | D   | -0.3                       | 0.000              |
|    |  | School PM |          | 25.1             | C   | 25.3                    | C   | 0.8                        | 0.004              |
|    |  | PM *      |          | 53.6             | D-  | 53.8                    | D-  | 0.2                        | 0.010              |
| 3  | Mathilda Ave & Ross Dr                 | AM *      | E        | 11.7             | B+  | 12.0                    | B+  | 0.5                        | 0.010              |
|    |  | School PM |          | 14.3             | B   | 14.5                    | B   | 0.2                        | 0.005              |
|    |  | PM *      |          | 54.9             | D-  | 55.0                    | D-  | 0.0                        | 0.000              |
| 4  | Mathilda Ave & Almanor Ave             | AM        | E        | 26.6             | C   | 31.9                    | C   | 6.5                        | 0.053              |
|    |  | School PM |          | 30.9             | C   | 30.9                    | C   | -0.1                       | 0.008              |
|    |  | PM        |          | 41.1             | D   | 41.2                    | D   | 0.1                        | 0.002              |
| 5  | Mathilda Ave & San Aleso Ave           | AM        | E        | 14.0             | B   | 18.6                    | B-  | 7.9                        | 0.063              |
|    |  | School PM |          | 9.8              | A   | 10.2                    | B+  | 0.1                        | 0.006              |
|    |  | PM        |          | 16.3             | B   | 17.9                    | B   | 15.0                       | 0.040              |
| 6  | Mathilda Ave & Maude Ave               | AM        | E        | 50.1             | D   | 54.0                    | D-  | 4.1                        | 0.030              |
|    |  | School PM |          | 34.0             | C-  | 34.1                    | C-  | 0.0                        | 0.006              |
|    |  | PM        |          | 63.1             | E   | 63.5                    | E   | 0.5                        | 0.003              |
| 7  | Mathilda Ave & Indio Ave               | AM        | E        | 41.6             | D   | 45.6                    | D   | 5.7                        | 0.032              |
|    |  | School PM |          | 10.6             | B+  | 10.7                    | B+  | 0.1                        | 0.009              |
|    |  | PM        |          | 26.2             | C   | 26.4                    | C   | 0.2                        | 0.003              |
| 8  | Mathilda Ave & California Ave          | AM        | E        | 30.4             | C   | 30.3                    | C   | 0.1                        | 0.008              |
|    |  | School PM |          | 19.1             | B-  | 19.0                    | B-  | -0.1                       | 0.005              |
|    |  | PM        |          | 35.7             | D+  | 35.7                    | D+  | 0.2                        | 0.002              |
| 12 | Sunnyvale Ave/Borregas Ave & Maude Ave | AM        | D        | 40.7             | D   | 40.7                    | D   | 0.0                        | 0.050              |
|    |  | School PM |          | 32.4             | C-  | 32.6                    | C-  | 0.4                        | 0.006              |
|    |  | PM        |          | 29.8             | C   | 29.9                    | C   | 0.2                        | 0.003              |
| 16 | Fair Oaks Ave & Weddell Dr             | AM        | D        | 20.4             | C+  | 20.3                    | C+  | 0.1                        | 0.003              |
|    |  | School PM |          | 19.5             | B-  | 19.4                    | B-  | 0.0                        | 0.003              |
|    |  | PM        |          | 18.2             | B-  | 18.2                    | B-  | 0.1                        | 0.001              |
| 17 | Fair Oaks Ave & US 101 NB Ramps        | AM        | E        | 37.8             | D+  | 37.7                    | D+  | 0.0                        | 0.000              |
|    |  | School PM |          | 22.2             | C+  | 22.1                    | C+  | 0.1                        | 0.002              |
|    |  | PM        |          | 46.3             | D   | 46.4                    | D   | 0.3                        | 0.000              |
| 18 | Fair Oaks Ave & Ahwanee Ave            | AM        | D        | 21.7             | C+  | 22.8                    | C+  | 1.4                        | 0.015              |
|    |  | School PM |          | 17.4             | B   | 18.4                    | B-  | 0.8                        | 0.012              |
|    |  | PM        |          | 14.8             | B   | 15.2                    | B   | 0.4                        | 0.004              |
| 19 | Fair Oaks Ave & Duane Ave              | AM        | D        | 33.6             | C-  | 33.9                    | C-  | 0.9                        | 0.009              |
|    |  | School PM |          | 29.9             | C   | 30.2                    | C   | 0.5                        | 0.006              |
|    |  | PM        |          | 34.5             | C-  | 34.7                    | C-  | 0.2                        | 0.002              |
| 20 | Fair Oaks Ave & Wolfe Rd               | AM        | D        | 17.3             | B   | 17.1                    | B   | 0.0                        | 0.000              |
|    |  | School PM |          | 14.0             | B   | 13.8                    | B   | 0.1                        | 0.004              |
|    |  | PM        |          | 15.6             | B   | 15.5                    | B   | 0.0                        | 0.002              |
| 21 | Fair Oaks Ave & Maude Ave              | AM        | D        | 32.6             | C-  | 33.1                    | C-  | 0.9                        | 0.042              |
|    |  | School PM |          | 29.1             | C   | 29.5                    | C   | 0.8                        | 0.022              |
|    |  | PM        |          | 32.6             | C-  | 32.9                    | C-  | 0.4                        | 0.007              |
| 23 | Wolfe Rd & Arques Ave                  | AM        | D        | 41.7             | D   | 41.8                    | D   | 0.2                        | -0.009             |
|    |  | School PM |          | 38.8             | D+  | 38.6                    | D+  | -0.1                       | 0.002              |
|    |  | PM        |          | 41.0             | D   | 40.9                    | D   | -0.1                       | 0.001              |
| 24 | Wolfe Rd & Central Expwy Ramps         | AM        | E        | 39.6             | D   | 40.4                    | D   | 1.0                        | 0.018              |
|    |  | School PM |          | 42.8             | D   | 41.0                    | D   | -3.4                       | 0.010              |
|    |  | PM        |          | 73.9             | E   | 74.5                    | E   | 0.7                        | 0.004              |

**Notes:**  
\* Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

**Table 13**  
**Background plus Project Level of Service Summary – Unsignalized Intersections**

| #  | Intersection                | Control                       | Peak Hour | Background    |          |                                 | Background plus Project |          |                |              |                                 |
|----|-----------------------------|-------------------------------|-----------|---------------|----------|---------------------------------|-------------------------|----------|----------------|--------------|---------------------------------|
|    |                             |                               |           | Delay (sec)   | LOS      | Signal Warrant Met <sup>3</sup> | Delay (sec)             | LOS      | Incr. in Delay | Incr. in V/C | Signal Warrant Met <sup>3</sup> |
| 9  | San Aleso Ave & Ahwanee Ave | Side-Street Stop <sup>1</sup> | AM        | 9.7           | A        | -                               | 14.7                    | B        | 5.0            | 0.370        |                                 |
|    |                             |                               | School PM | 9.4           | A        | -                               | 11.2                    | B        | 1.8            | 0.209        | -                               |
|    |                             |                               | PM        | 10.7          | B        | -                               | 12.0                    | B        | 1.3            | 0.103        |                                 |
| 10 | Borregas Ave & Ahwanee Ave  | All-Way Stop <sup>2</sup>     | AM        | 9.2           | A        | -                               | 9.6                     | A        | 0.4            | 0.016        |                                 |
|    |                             |                               | School PM | 7.9           | A        | -                               | 8.3                     | A        | 0.4            | 0.078        | -                               |
|    |                             |                               | PM        | 9.4           | A        | -                               | 9.6                     | A        | 0.2            | 0.028        |                                 |
| 11 | Borregas Ave & Duane Ave    | Side-Street Stop <sup>1</sup> | AM        | 11.7          | B        | -                               | 12.0                    | B        | 0.3            | 0.008        |                                 |
|    |                             |                               | School PM | 10.9          | B        | -                               | 11.1                    | B        | 0.2            | 0.002        | -                               |
|    |                             |                               | PM        | 12.2          | B        | -                               | 12.3                    | B        | 0.1            | 0.001        |                                 |
| 13 | Morse Ave & Ahwanee Ave     | Side-Street Stop <sup>1</sup> | AM        | 19.3          | C        | -                               | 23.0                    | C        | 3.7            | 0.060        |                                 |
|    |                             |                               | School PM | 11.4          | B        | -                               | 12.1                    | B        | 0.7            | 0.018        | -                               |
|    |                             |                               | PM        | 11.8          | B        | -                               | 12.1                    | B        | 0.3            | 0.004        |                                 |
| 14 | Morse Ave & Duane Ave       | All-Way Stop <sup>2</sup>     | AM        | 10.5          | B        | -                               | 10.7                    | B        | 0.2            | 0.007        |                                 |
|    |                             |                               | School PM | 9.0           | A        | -                               | 9.1                     | A        | 0.1            | 0.005        | -                               |
|    |                             |                               | PM        | 8.8           | A        | -                               | 8.8                     | A        | 0.0            | 0.002        |                                 |
| 15 | Morse Ave & Maude Ave       | Side-Street Stop <sup>1</sup> | AM        | 15.8          | C        | -                               | 17.3                    | C        | 1.5            | 0.038        |                                 |
|    |                             |                               | School PM | 14.2          | B        | -                               | 14.6                    | B        | 0.4            | 0.015        | -                               |
|    |                             |                               | PM        | 17.8          | C        | -                               | 17.9                    | C        | 0.1            | 0.001        |                                 |
| 22 | Wolfe Rd & Maude Ave        | Side-Street Stop <sup>1</sup> | AM        | <b>50.3</b>   | <b>F</b> | <b>No</b>                       | <b>56.1</b>             | <b>F</b> | <b>5.8</b>     | <b>0.016</b> | <b>No</b>                       |
|    |                             |                               | School PM | 25.4          | D        | -                               | 26.7                    | C        | 1.3            | 0.004        | -                               |
|    |                             |                               | PM        | <b>&gt;60</b> | <b>F</b> | <b>Yes</b>                      | <b>&gt;60</b>           | <b>F</b> | <b>2.6</b>     | <b>0.003</b> | <b>Yes</b>                      |

**Notes:**

- Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
- Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections represent intersection average.
- The CA MUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

**BOLD** indicates unacceptable level of service

**Table 14**  
**Existing plus Project Level of Service Summary – Signalized Intersections**

| #  | Intersection                           | Peak Hour | Count Date | LOS Std. | Existing         |     | Existing plus Project |                  |     |                            |                    |
|----|--|-----------|------------|----------|------------------|-----|-----------------------|------------------|-----|----------------------------|--------------------|
|    |  |           |            |          | Avg. Delay (sec) | LOS | Avg. Delay (sec)      | Avg. Delay (sec) | LOS | Incr. In Crit. Delay (sec) | Incr. In Crit. V/C |
| 1  | Mathilda Ave & SR 237 WB Ramps         | AM*       | 11/00/15   | E        | 23.8             | C   | 24.3                  | 24.3             | C   | 0.3                        | 0.010              |
|    |  | School PM | 05/16/17   |          | 19.8             | B-  | 20.0                  | 20.0             | B-  | 0.2                        | 0.003              |
|    |  | PM*       | 11/00/15   |          | 20.7             | C+  | 20.8                  | 20.8             | C+  | 0.4                        | 0.000              |
| 2  | Mathilda Ave & SR 237 EB Ramps         | AM*       | 11/00/15   | E        | 21.9             | C+  | 22.2                  | 22.2             | C+  | 0.8                        | 0.010              |
|    |  | School PM | 05/16/17   |          | 17.7             | B   | 17.7                  | 17.7             | B   | 0.1                        | 0.005              |
|    |  | PM*       | 11/00/15   |          | 68.2             | E   | 67.2                  | 67.2             | E   | -1.7                       | 0.000              |
| 3  | Mathilda Ave & Ross Dr                 | AM*       | 11/00/15   | E        | 11.9             | B+  | 12.0                  | 12.0             | B+  | 0.4                        | 0.010              |
|    |  | School PM | 05/16/17   |          | 16.7             | B   | 16.9                  | 16.9             | B   | 0.3                        | 0.004              |
|    |  | PM*       | 11/00/15   |          | 39.1             | D   | 39.1                  | 39.1             | D   | 0.0                        | 0.000              |
| 4  | Mathilda Ave & Almanor Ave             | AM        | 11/00/15   | E        | 24.0             | C   | 29.4                  | 29.4             | C   | 5.5                        | 0.053              |
|    |  | School PM | 05/16/17   |          | 21.9             | C+  | 20.9                  | 20.9             | C+  | -3.4                       | 0.016              |
|    |  | PM        | 11/00/15   |          | 27.2             | C   | 27.3                  | 27.3             | C   | 0.0                        | 0.002              |
| 5  | Mathilda Ave & San Aleso Ave           | AM        | 11/00/15   | E        | 9.6              | A   | 14.2                  | 14.2             | B   | 7.8                        | 0.064              |
|    |  | School PM | 05/16/17   |          | 9.8              | A   | 10.0                  | 10.0             | B+  | 0.0                        | 0.007              |
|    |  | PM        | 11/00/15   |          | 12.9             | B   | 13.5                  | 13.5             | B   | 0.0                        | 0.002              |
| 6  | Mathilda Ave & Maude Ave               | AM        | 11/00/15   | E        | 41.6             | D   | 43.2                  | 43.2             | D   | 2.2                        | 0.044              |
|    |  | School PM | 05/16/17   |          | 30.2             | C   | 29.6                  | 29.6             | C   | -0.7                       | -0.001             |
|    |  | PM        | 11/00/15   |          | 44.9             | D   | 45.0                  | 45.0             | D   | 6.3                        | 0.011              |
| 7  | Mathilda Ave & Indio Ave               | AM        | 11/00/15   | E        | 29.6             | C   | 31.2                  | 31.2             | C   | 2.1                        | 0.033              |
|    |  | School PM | 05/16/17   |          | 10.4             | B+  | 10.4                  | 10.4             | B+  | 0.0                        | 0.008              |
|    |  | PM        | 11/00/15   |          | 23.7             | C   | 23.7                  | 23.7             | C   | 0.0                        | 0.003              |
| 8  | Mathilda Ave & California Ave          | AM        | 11/00/15   | E        | 25.4             | C   | 25.2                  | 25.2             | C   | -0.2                       | 0.007              |
|    |  | School PM | 05/16/17   |          | 17.6             | B   | 17.4                  | 17.4             | B   | -0.1                       | 0.005              |
|    |  | PM        | 11/00/15   |          | 28.5             | C   | 28.4                  | 28.4             | C   | 0.0                        | 0.001              |
| 12 | Sunnyvale Ave/Borregas Ave & Maude Ave | AM        | 05/16/17   | D        | 41.1             | D   | 40.8                  | 40.8             | D   | -0.5                       | 0.050              |
|    |  | School PM | 05/16/17   |          | 32.7             | C-  | 32.9                  | 32.9             | C-  | 0.4                        | 0.007              |
|    |  | PM        | 05/16/17   |          | 29.3             | C   | 29.4                  | 29.4             | C   | 0.2                        | 0.003              |
| 16 | Fair Oaks Ave & Weddell Dr             | AM        | 04/04/17   | D        | 17.2             | B   | 17.2                  | 17.2             | B   | 0.0                        | 0.006              |
|    |  | School PM | 12/02/15   |          | 20.0             | C+  | 19.9                  | 19.9             | B-  | 0.0                        | 0.003              |
|    |  | PM        | 04/04/17   |          | 16.5             | B   | 16.5                  | 16.5             | B   | 0.1                        | 0.001              |
| 17 | Fair Oaks Ave & US 101 NB Ramps        | AM        | 04/04/17   | E        | 23.4             | C   | 23.3                  | 23.3             | C   | 0.0                        | 0.000              |
|    |  | School PM | 12/02/15   |          | 20.0             | C+  | 19.9                  | 19.9             | B-  | 0.0                        | 0.003              |
|    |  | PM        | 04/04/17   |          | 27.4             | C   | 27.4                  | 27.4             | C   | 0.0                        | 0.001              |
| 18 | Fair Oaks Ave & Ahwanee Ave            | AM        | 04/04/17   | D        | 22.3             | C+  | 23.3                  | 23.3             | C   | 1.2                        | 0.014              |
|    |  | School PM | 12/02/15   |          | 18.2             | B-  | 19.2                  | 19.2             | B-  | 0.8                        | 0.012              |
|    |  | PM        | 04/04/17   |          | 13.9             | B   | 14.4                  | 14.4             | B   | 0.4                        | 0.005              |
| 19 | Fair Oaks Ave & Duane Ave              | AM        | 04/04/17   | D        | 34.6             | C-  | 34.7                  | 34.7             | C-  | 0.8                        | 0.009              |
|    |  | School PM | 12/02/15   |          | 30.5             | C   | 30.7                  | 30.7             | C   | 0.4                        | 0.006              |
|    |  | PM        | 04/04/17   |          | 31.4             | C   | 31.6                  | 31.6             | C   | 0.2                        | 0.005              |
| 20 | Fair Oaks Ave & Wolfe Rd               | AM        | 04/04/17   | D        | 16.0             | B   | 15.8                  | 15.8             | B   | 0.0                        | 0.000              |
|    |  | School PM | 12/02/15   |          | 13.4             | B   | 13.1                  | 13.1             | B   | 0.2                        | 0.004              |
|    |  | PM        | 04/04/17   |          | 14.1             | B   | 14.1                  | 14.1             | B   | 0.0                        | 0.002              |
| 21 | Fair Oaks Ave & Maude Ave              | AM        | 05/16/17   | D        | 27.1             | C   | 27.6                  | 27.6             | C   | 0.6                        | 0.033              |
|    |  | School PM | 12/02/15   |          | 29.0             | C   | 29.3                  | 29.3             | C   | 0.7                        | 0.021              |
|    |  | PM        | 05/16/17   |          | 31.2             | C   | 31.4                  | 31.4             | C   | 0.3                        | 0.006              |
| 23 | Wolfe Rd & Arques Ave                  | AM        | 04/04/17   | D        | 40.5             | D   | 40.3                  | 40.3             | D   | -0.1                       | 0.000              |
|    |  | School PM | 12/02/15   |          | 39.3             | D   | 39.1                  | 39.1             | D   | 0.0                        | 0.000              |
|    |  | PM        | 04/04/17   |          | 40.4             | D   | 40.3                  | 40.3             | D   | -0.1                       | 0.001              |
| 24 | Wolfe Rd & Central Expwy Ramps         | AM        | 04/04/17   | E        | 37.9             | D+  | 36.7                  | 36.7             | D+  | 16.7                       | 0.071              |
|    |  | School PM | 12/02/15   |          | 41.3             | D   | 41.7                  | 41.7             | D   | 0.1                        | 0.011              |
|    |  | PM        | 04/04/17   |          | 62.8             | E   | 63.1                  | 63.1             | E   | 0.4                        | 0.004              |

**Notes:**

\* Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

**Table 15**  
**Existing plus Project Level of Service Summary – Unsignalized Intersections**

| #  | Intersection                | Control           | Peak Hour | Count Date | Existing    |          |                                 | Existing plus Project |          |                |              |                                 |
|----|-----------------------------|-------------------|-----------|------------|-------------|----------|---------------------------------|-----------------------|----------|----------------|--------------|---------------------------------|
|    |                             |                   |           |            | Delay (sec) | LOS      | Signal Warrant Met <sup>3</sup> | Delay (sec)           | LOS      | Incr. in Delay | Incr. in V/C | Signal Warrant Met <sup>3</sup> |
| 9  | San Aleso Ave & Ahwanee Ave | Side-Street       | AM        | 05/16/17   | 9.7         | A        | -                               | 14.0                  | B        | 4.3            | 0.356        |                                 |
|    |                             | Stop <sup>1</sup> | School PM | 05/16/17   | 9.3         | A        | -                               | 11.0                  | B        | 1.7            | 0.205        | -                               |
|    |                             |                   | PM        | 05/16/17   | 10.5        | B        |                                 | 11.7                  | B        | 1.2            | 0.099        |                                 |
| 10 | Borregas Ave & Ahwanee Ave  | All-Way           | AM        | 05/16/17   | 9.0         | A        |                                 | 9.4                   | A        | 0.4            | 0.015        |                                 |
|    |                             | Stop <sup>2</sup> | School PM | 05/16/17   | 7.9         | A        | -                               | 8.2                   | A        | 0.3            | 0.078        | -                               |
|    |                             |                   | PM        | 05/16/17   | 9.2         | A        |                                 | 9.4                   | A        | 0.2            | 0.028        |                                 |
| 11 | Borregas Ave & Duane Ave    | Side-Street       | AM        | 05/16/17   | 11.6        | B        |                                 | 11.9                  | B        | 0.3            | 0.008        |                                 |
|    |                             | Stop <sup>1</sup> | School PM | 05/16/17   | 10.7        | B        | -                               | 10.9                  | B        | 0.2            | 0.002        | -                               |
|    |                             |                   | PM        | 05/16/17   | 12.0        | B        |                                 | 12.1                  | B        | 0.1            | 0.001        |                                 |
| 13 | Morse Ave & Ahwanee Ave     | Side-Street       | AM        | 05/16/17   | 18.5        | C        |                                 | 21.9                  | C        | 3.4            | 0.058        |                                 |
|    |                             | Stop <sup>1</sup> | School PM | 05/16/17   | 11.3        | B        | -                               | 11.9                  | B        | 0.6            | 0.017        | -                               |
|    |                             |                   | PM        | 05/16/17   | 11.7        | B        |                                 | 11.9                  | B        | 0.2            | 0.003        |                                 |
| 14 | Morse Ave & Duane Ave       | All-Way           | AM        | 05/16/17   | 10.4        | B        |                                 | 10.5                  | B        | 0.1            | 0.007        |                                 |
|    |                             | Stop <sup>2</sup> | School PM | 05/16/17   | 8.8         | A        | -                               | 8.9                   | A        | 0.1            | 0.004        | -                               |
|    |                             |                   | PM        | 05/16/17   | 8.6         | A        |                                 | 8.6                   | A        | 0.0            | 0.002        |                                 |
| 15 | Morse Ave & Maude Ave       | Side-Street       | AM        | 05/16/17   | 14.5        | B        |                                 | 15.7                  | C        | 1.2            | 0.035        |                                 |
|    |                             | Stop <sup>1</sup> | School PM | 05/16/17   | 13.2        | B        | -                               | 13.7                  | B        | 0.5            | 0.014        | -                               |
|    |                             |                   | PM        | 05/16/17   | 16.2        | C        |                                 | 16.4                  | C        | 0.2            | 0.000        |                                 |
| 22 | Wolfe Rd & Maude Ave        | Side-Street       | AM        | 05/25/17   | 26.5        | D        | No                              | 28.8                  | D        | 2.3            | 0.008        | No                              |
|    |                             | Stop <sup>1</sup> | School PM | 05/25/17   | 20.4        | C        | -                               | 21.4                  | C        | 1.0            | 0.003        | -                               |
|    |                             |                   | PM        | 05/25/17   | <b>50.4</b> | <b>F</b> | <b>Yes</b>                      | <b>51.7</b>           | <b>F</b> | <b>1.3</b>     | <b>0.003</b> | <b>Yes</b>                      |

Notes:

1. Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
2. Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections represent intersection average.
3. The CAMUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

**BOLD** indicates unacceptable level of service



## Project Conditions Freeway Analysis

The results of the CMP freeway analysis show that the freeway segments currently operating at acceptable levels of service would continue to operate at acceptable levels of service under project conditions. For freeway segments currently operating at unacceptable LOS F, the project generated freeway traffic would not exceed 1%, thus the project freeway impacts would be less than significant (see Table 16).

**Table 16**  
**Project Conditions Freeway Analysis Summary**

| Freeway | Segment                           | Dir. | Peak Hour | Existing Conditions - Mixed Flow Lanes <sup>1</sup> |          |              |              |          | Summit School Project |            |          |
|---------|-----------------------------------|------|-----------|---|----------|--------------|--------------|----------|-----------------------|------------|----------|
|         |                                   |      |           | Ave. Speed  | Lanes    | Capacity     | Volume       | LOS      | Trips                 | % Capacity | LOS      |
| US 101  | Lawrence Expwy. to Fair Oaks Ave. | NB   | AM        | <b>33</b>   | <b>3</b> | <b>6,900</b> | <b>5,940</b> | <b>F</b> | 41                    | 0.59%      | <b>F</b> |
|         |                                   |      | PM        | 66  | 3        | 6,900        | 4,760        | C        | 7                     | 0.10%      | C        |
| US 101  | Fair Oaks Ave. to Mathilda Ave.   | NB   | AM        | 43  | 3        | 6,900        | 6,330        | E        | 41                    | 0.59%      | E        |
|         |                                   |      | PM        | 66  | 3        | 6,900        | 4,760        | C        | 7                     | 0.10%      | C        |
| US 101  | Mathilda Ave. to SR 237           | NB   | AM        | <b>28</b>   | <b>3</b> | <b>6,900</b> | <b>5,630</b> | <b>F</b> | 35                    | 0.51%      | <b>F</b> |
|         |                                   |      | PM        | 39  | 3        | 6,900        | 6,210        | E        | 10                    | 0.14%      | E        |
| US 101  | SR 237 to Mathilda Ave.           | SB   | AM        | 66  | 3        | 6,900        | 4,560        | C        | 41                    | 0.59%      | C        |
|         |                                   |      | PM        | <b>18</b>   | <b>3</b> | <b>6,900</b> | <b>4,700</b> | <b>F</b> | 7                     | 0.10%      | <b>F</b> |
| US 101  | Mathilda Ave. to Fair Oaks Ave.   | SB   | AM        | 66  | 3        | 6,900        | 4,760        | C        | 35                    | 0.51%      | C        |
|         |                                   |      | PM        | <b>25</b>   | <b>3</b> | <b>6,900</b> | <b>5,400</b> | <b>F</b> | 10                    | 0.14%      | <b>F</b> |
| US 101  | Fair Oaks Ave. to Lawrence Expwy. | SB   | AM        | 66  | 3        | 6,900        | 5,510        | D        | 35                    | 0.51%      | D        |
|         |                                   |      | PM        | <b>16</b>   | <b>3</b> | <b>6,900</b> | <b>4,420</b> | <b>F</b> | 10                    | 0.14%      | <b>F</b> |
| SR 237  | US 101 to Mathilda Ave.           | EB   | AM        | 55  | 2        | 4,400        | 4,400        | D        | 0                     | 0.00%      | D        |
|         |                                   |      | PM        | <b>9</b>  | <b>2</b> | <b>4,400</b> | <b>2,180</b> | <b>F</b> | 0                     | 0.00%      | <b>F</b> |
| SR 237  | Mathilda Ave. to Fair Oaks Ave.   | EB   | AM        | 64  | 2        | 4,400        | 4,230        | D        | 12                    | 0.27%      | D        |
|         |                                   |      | PM        | <b>14</b>   | <b>2</b> | <b>4,400</b> | <b>2,800</b> | <b>F</b> | 4                     | 0.09%      | <b>F</b> |
| SR 237  | Fair Oaks Ave. to Lawrence Expwy. | EB   | AM        | 64  | 2        | 4,400        | 4,230        | D        | 12                    | 0.27%      | D        |
|         |                                   |      | PM        | <b>10</b>   | <b>2</b> | <b>4,400</b> | <b>2,300</b> | <b>F</b> | 4                     | 0.09%      | <b>F</b> |
| SR 237  | Lawrence Expwy. to Fair Oaks Ave. | WB   | AM        | <b>15</b>   | <b>2</b> | <b>4,400</b> | <b>2,850</b> | <b>F</b> | 14                    | 0.32%      | <b>F</b> |
|         |                                   |      | PM        | <b>32</b>   | <b>2</b> | <b>4,400</b> | <b>3,910</b> | <b>F</b> | 2                     | 0.05%      | <b>F</b> |
| SR 237  | Fair Oaks Ave. to Mathilda Ave.   | WB   | AM        | <b>18</b>   | <b>3</b> | <b>6,900</b> | <b>4,810</b> | <b>F</b> | 14                    | 0.20%      | <b>F</b> |
|         |                                   |      | PM        | <b>19</b>   | <b>3</b> | <b>6,900</b> | <b>4,790</b> | <b>F</b> | 2                     | 0.03%      | <b>F</b> |
| SR 237  | Mathilda Ave. to US 101           | WB   | AM        | 41  | 2        | 4,400        | 4,190        | E        | 0                     | 0.00%      | E        |
|         |                                   |      | PM        | <b>20</b>   | <b>2</b> | <b>4,400</b> | <b>3,280</b> | <b>F</b> | 0                     | 0.00%      | <b>F</b> |

**Notes:**

1. Existing freeway conditions referenced the *Santa Clara VTA 2016 Monitoring and Conformance Report*, dated February 2, 2017.

**BOLD** indicates a substandard level of service.

## Project Conditions Freeway Ramp Analysis

Freeway ramp volumes under project conditions were estimated by adding project trips to the existing volumes. The peak-hour ramp volumes under project conditions are shown in Table 17.

The ramp analysis shows that the study freeway ramps currently have sufficient capacity to service the existing traffic volumes and that the study freeway ramps would continue to have sufficient capacity to serve the projected traffic volumes under project conditions.

**Table 17**  
**Project Conditions Freeway Ramp Analysis**

| Interchange         | Ramp                            | Type     | Peak Hour | Existing Conditions   |                          |      | Summit School |             |      |
|---------------------|---------------------------------|----------|-----------|-----------------------|--------------------------|------|---------------|-------------|------|
|                     |                                 |          |           | Capacity <sup>2</sup> | Peak Volume <sup>3</sup> | V/C  | Project Trips | Peak Volume | V/C  |
| US 101/Mathilda Ave | SB On-Ramp fr. NB Mathilda Ave. | Diagonal | AM        | 1,800                 | 480                      | 0.27 | 35            | 515         | 0.29 |
|                     |                                 |          | PM        |                       | 433                      | 0.24 |               | 10          | 443  |
|                     | NB On-Ramp fr. NB Mathilda Ave. | Loop     | AM        | 1,800                 | 287                      | 0.16 | 35            | 322         | 0.18 |
|                     |                                 |          | PM        |                       | 295                      | 0.16 |               | 10          | 305  |
|                     | SB Off-Ramp                     | Diagonal | AM        | 2,000                 | 340                      | 0.17 | 41            | 381         | 0.19 |
|                     |                                 |          | PM        |                       | 498                      | 0.25 |               | 7           | 505  |
|                     | NB Off-Ramp to SB Mathilda Ave. | Loop     | AM        | 1,800                 | 722                      | 0.40 | 41            | 763         | 0.42 |
|                     |                                 |          | PM        |                       | 729                      | 0.41 |               | 7           | 736  |
| SR 237/Mathilda Ave | EB On-Ramp                      | Diagonal | AM        | 2,000                 | 765                      | 0.38 | 12            | 777         | 0.39 |
|                     |                                 |          | PM        |                       | 985                      | 0.49 |               | 4           | 989  |
|                     | WB On-Ramp                      | Diagonal | AM        | 900                   | 226                      | 0.25 | 0             | 226         | 0.25 |
|                     |                                 |          | PM        |                       | 502                      | 0.56 |               | 0           | 502  |
|                     | EB Off-Ramp                     | Diagonal | AM        | 3,800                 | 1,020                    | 0.27 | 0             | 1,020       | 0.27 |
|                     |                                 |          | PM        |                       | 890                      | 0.23 |               | 0           | 890  |
|                     | WB Off-Ramp                     | Diagonal | AM        | 2,000                 | 840                      | 0.42 | 14            | 854         | 0.43 |
|                     |                                 |          | PM        |                       | 390                      | 0.20 |               | 2           | 392  |

**Notes:**

SB=Southbound, NB=Northbound, EB=Eastbound, WB=Westbound, fr.=from

- As a conservative approach, if an on-ramp has meter equipment present, the ramp is analyzed assuming it is metered.
- Ramp capacities were obtained from the *Highway Capacity Manual 2000*, and considered the free-flow speed, the number of lanes on the ramp, and ramp metering.
- Existing peak hour volumes are obtained through personal communication with Caltrans staff.

## On-Ramp Queues

Hexagon conducted field observations at all on ramps in May 2017, and found that the US 101 southbound on-ramp from northbound Mathilda Avenue was metered during the PM peak hour. Hexagon observed that during the PM peak hour the mixed-flow lane on the ramp had an average queue of four vehicles and a maximum queue of 12 vehicles, which took 98 seconds for the queue to clear. Queues were minimal in the HOV lane.

The ramp volume and the maximum ramp queue at the on-ramp under background conditions were estimated based on the ratio between the northbound through movement volume under existing and background conditions. Based on observed conditions, it is estimated that under background conditions the on-ramp would have a maximum queue of 17 vehicles, which would take 139 seconds to clear. Assuming 25 feet per vehicle, the maximum queue under background conditions would be 425 feet, which would be contained within the existing ramp storage area of approximately 680 feet. As shown on Table 18, the project is expected to add 10 vehicles onto this ramp during the PM peak hour. It is estimated that under background plus project conditions, the maximum queue would remain unchanged compared to background conditions.

**Table 18**  
**Project Conditions Freeway On-Ramp Queuing Analysis**

| Ramp                                   | Peak Hour | Existing <sup>1</sup> |                     |                  | Background Conditions <sup>2</sup> |                                  |                               | Background plus Project Conditions |                                  |                               |
|--|-----------|-----------------------|---------------------|------------------|------------------------------------|----------------------------------|-------------------------------|------------------------------------|----------------------------------|-------------------------------|
|  |           | Volume                | Queue Length (veh.) | Wait Time (sec.) | Volume                             | Queue Length <sup>3</sup> (veh.) | Wait Time <sup>4</sup> (sec.) | Volume                             | Queue Length <sup>3</sup> (veh.) | Wait Time <sup>4</sup> (sec.) |
| US 101 SB On-Ramp fr. NB Mathilda Ave. | PM        | 433                   | 12                  | 98               | 600                                | 17                               | 139                           | 610                                | 17                               | 139                           |

**Notes:**  
SB=Southbound, NB=Northbound, fr.=from  
1. Existing wait time and queue length represent the longest queue and the corresponding wait time observed during the peak-hour period.  
2. Background conditions ramp volumes are estimated based on the northbound through movement volume increase at the intersection of Mathilda Ave. and Almanor Ave.  
3. Future queue lengths were estimated based on the ramp volumes under future conditions.  
4. Future wait times were estimated based on the projected future queue length.

## Potential Project Effects on the Ramp Operations

As discussed in Chapter 4, the project is expected to add 41 vehicles onto the westbound Central Expressway off-ramp to San Bernardino Way during the AM peak hour. It is expected that some project traffic will add onto the queue at this off-ramp during the two cycles beginning at 8 AM when the queue extends towards the Sunnyvale Avenue overpass. However, the westbound auxiliary lane on Central Expressway has sufficient queue space to accommodate the added traffic. Project added traffic at this off-ramp during any other time is not expected to considerably affect the ramp operations. The proposed project would add minimal traffic onto any other ramps at the Central Expressway and Mathilda Avenue interchange during any other study periods. Overall, it is not expected that project traffic would considerably affect the ramp operations.

## PPSP Cumulative Impact Fair Share Contribution

According to VTA's CMP TIA guidelines, a scenario analyzing project impacts under cumulative conditions is also required. Because the project is located within and consistent with the recently-adopted Peery Park Specific Plan (PPSP), the cumulative project impacts are included in the PPSP TIA document dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc. The project's contribution to the cumulative impacts of the PPSP is discussed in this section.

### PPSP Cumulative Impact Mitigations with PPSP Fair-Share Contributions

**Impact:** The PPSP would generate a cumulative intersection impact at the intersection of Mary Avenue and Central Expressway.

**Mitigation:** As a partial mitigation, projects within the PPSP will contribute their fair-share towards a third westbound left-turn lane at this intersection identified as a Tier 3 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

**Impact:** The PPSP would generate a cumulative intersection impact at the intersection of Lawrence Expressway and Cabrillo Avenue.

**Mitigation:** Projects within the PPSP will contribute their fair-share towards the construction of an interchange at this location identified as a Tier 3 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

**Impact:** The PPSP would generate a cumulative intersection impact at the intersection of Lawrence Expressway and Benton Street.

**Mitigation:** Projects within the PPSP will contribute their fair-share towards the construction of an interchange at this location identified as a Tier 3 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

**Impact:** The PPSP would generate a cumulative intersection impact at the intersection of Lawrence Expressway and Homestead Road.

**Mitigation:** Projects within the PPSP will contribute their fair-share towards the construction of an interchange at this location identified as a Tier 1 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

**Impact:** The PPSP would generate a cumulative intersection impact at the intersection of Lawrence Expressway and Pruneridge Avenue.

**Mitigation:** Projects within the PPSP will contribute their fair-share towards the construction of an interchange at this location identified as a Tier 3 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

**Impact:** The PPSP would generate cumulative freeway impacts along US 101 in the northbound direction from I-280 to Mathilda Avenue and from Shoreline Boulevard to Embarcadero Road, and in the southbound direction from Moffett Boulevard to Ellis Street and from Mathilda Avenue to I-280.

**Mitigation:** Projects within the PPSP will contribute their fair-share towards the conversion of the existing HOV lanes along US 101 to express lanes and the construction of a second express lane in each direction along US 101.

### **Project Fair Share Contribution**

The proposed project is estimated to generate a net 510 AM peak hour trips. Since this is a school project, the PPSP cumulative impact fee would apply only to student/parent trips generated outside of the City, as well as to staff trips. Based on the trip generation and distribution assumptions discussed in Chapter 4, the PPSP cumulative impact fee would apply to 231 net AM peak hour trips. According to the ITE *Trip Generation, 9<sup>th</sup> Edition*, the AM peak hour average trip generation rate for an office building is 1.56 trips per 1,000 s.f. The 231 net peak hour project trips would be equivalent to a 148,077 s.f. office building in terms of peak hour trip generation. Therefore, the project shall pay a fair share contribution for this square footage towards mitigating the PPSP cumulative impacts.

## 5. Other Transportation Issues

---

This chapter presents an analysis of other transportation issues associated with the project site, including:

- Operations analysis – vehicle queuing and storage at selected intersections,
- Potential impacts to transit, pedestrian and bicycle facilities,
- Site access, on-site circulation,
- Parking, and
- School Safety Assessment.

Unlike the level of service impact methodology, which is adopted by the City Council, the analyses in this chapter are based on professional judgment in accordance with the standards and methods employed by the traffic engineering community. Although operational issues are not considered CEQA impacts, they do describe traffic conditions that are relevant to describing the project environment.

### Vehicle Queuing

Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using the following formula:

$$P(x = n) = \frac{\lambda^n e^{-\lambda}}{n!}$$

Where:

$P(x = n)$  = probability of “n” vehicles in queue per lane

$n$  = number of vehicles in the queue per lane

$\lambda$  = Average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

The operations analysis is based on vehicle queuing for high-demand left-turn movements at intersections where 10 or more project trips per lane were added. Vehicle queues were estimated using a Poisson probability distribution. The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95<sup>th</sup> percentile maximum number of queued vehicles for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement to determine if adequate storage is available to accommodate the 95th percentile queues. This analysis thus provides a basis for determining whether the addition of project trips would exacerbate peak hour queues and delays, as well as estimating future storage requirements at intersections.

Based on the selection criteria of 10 or more project trips per left-turn lane, the following lanes were analyzed during the AM peak hour:

- Mathilda Avenue & Almanor Avenue – westbound left-turn lane
- Mathilda Avenue & San Aleso Avenue – southbound left-turn lane
- San Aleso Avenue & Ahwanee Avenue – northbound lane
- Borregas Avenue & Ahwanee Avenue – eastbound lane
- Fair Oaks Avenue & Ahwanee Avenue – eastbound shared left-through lane
- Fair Oaks Avenue & Maude Avenue – northbound left-turn lane
- Wolfe Road & Maude Avenue – northbound left-turn lane
- Wolfe Road & Central Expressway Ramps – northbound and southbound left-turn lanes

Based on the selection criteria of 10 or more project trips per left-turn lane, the following lanes were analyzed during the PM school peak hour:

- Mathilda Avenue & Almanor Avenue – westbound left-turn lane
- Mathilda Avenue & San Aleso Avenue – southbound left-turn lane
- San Aleso Avenue & Ahwanee Avenue – northbound lane
- Borregas Avenue & Ahwanee Avenue – eastbound lane
- Fair Oaks Avenue & Ahwanee Avenue – eastbound share left-through lane
- Fair Oaks Avenue & Maude Avenue – northbound left-turn lane

Based on the selection criteria of 10 or more project trips per left-turn lane, the following lanes were analyzed during the PM commute peak hour:

- Mathilda Avenue & Almanor Avenue – westbound left-turn lane
- Mathilda Avenue & San Aleso Avenue – southbound left-turn lane
- San Aleso Avenue & Ahwanee Avenue – northbound lane
- Borregas Avenue & Ahwanee Avenue – eastbound lane

Hexagon conducted field observations during all study peak periods and calibrated the queuing results to match existing conditions observed in the field. The vehicle queuing estimates at these locations during the AM, PM school and PM commute peak hours are provided in Tables 19 to 22. The queuing results for the background plus project scenario are compared to the background scenario to determine whether the project would cause extensive queuing issues. Under background plus project conditions, left-turn traffic is expected to overflow the existing turn pockets at the following locations during at least one study period:

- Mathilda Avenue & San Aleso Avenue – southbound left-turn lane
- Fair Oaks Avenue & Maude Avenue – northbound left-turn lane
- Wolfe Road & Central Expressway Ramps – northbound left-turn lane

Below is a detailed discussion of the above identified locations under background plus project conditions.

### **Mathilda Avenue & San Aleso Avenue – southbound left-turn lane**

The project is expected to add 105 vehicles during the AM peak hour and 18 vehicles during the PM commute peak hour onto this southbound left-turn lane under background plus project conditions and would lengthen the 95<sup>th</sup> percentile queues. Since the 95<sup>th</sup> percentile queue under background plus project conditions is longer during the AM peak hour (425 feet compared to 350 feet during the commute PM peak hour), the following discussion is focused on the AM peak hour.

This left-turn movement has one turn lane with a total queue storage space of approximately 200 feet. Under background conditions during the AM peak hour, the 95<sup>th</sup> percentile queue length would be 250 feet, with back-of-queue extending out of the turn pocket. Under background plus project conditions, the proposed project would add 105 southbound left-turn vehicles during the AM peak hour. The 95<sup>th</sup> percentile queue length would be extended by 175 feet to 425 feet.

There is no room to further extend this left-turn lane. There is no feasible improvement for the identified queuing issue.

### **Fair Oaks Avenue & Maude Avenue – northbound left-turn lane**

The project is expected to add 27 vehicles during the AM peak hour and 16 vehicles during the PM school peak hour onto this northbound left-turn lane under background plus project conditions and would lengthen the 95<sup>th</sup> percentile queues. Since the 95<sup>th</sup> percentile queue under background plus project conditions is longer during the AM peak hour (325 feet compared to 150 feet during the PM school peak hour), the following discussion is focused on the AM peak hour.

This left-turn movement has one turn lane with a total queue storage space of approximately 140 feet. Under background conditions during the AM peak hour, the 95<sup>th</sup> percentile queue length would be 275 feet, with back-of-queue extending out of the turn pocket. Under background plus project conditions, the proposed project would add 27 northbound left-turn vehicles during the AM peak hour. The 95<sup>th</sup> percentile queue length would be extended by 50 feet to 325 feet.

### **Potential Improvement**

Fair Oaks Avenue south of Maude Avenue could potentially be restriped to accommodate a longer northbound left-turn lane. The restriping could be accommodated within the existing right-of-way without eliminating existing on-street parking. While there is insufficient room to accommodate the 95<sup>th</sup> percentile queue of 325 feet under background plus project conditions during the AM peak hour, the 95<sup>th</sup> percentile queue is expected to be found only 5% of the times. A lengthened left-turn pocket would reduce the times the northbound left-turn traffic overflows the turn pocket and blocks the inner through lane. The exact storage length should be determined when detailed design is completed for the improvement.



## Wolfe Road and Central Expressway Ramps – northbound left-turn lane

This left-turn movement has one turn lane with a total queue storage space of approximately 300 feet. Under background conditions during the AM peak hour, the 95<sup>th</sup> percentile queue length would be 450 feet, with back-of-queue extending out of the turn pocket. Under background plus project conditions, the proposed project would add 14 northbound left-turn vehicles during the AM peak hour. The 95<sup>th</sup> percentile queue length would be extended by 25 feet to 475 feet.

### Potential Improvement

The northbound left-turn lane could be lengthened to ensure that the left-turn vehicle queues would not overflow the turn pocket. The existing median could be narrowed to extend the left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.

**Table 19**  
**AM Peak Hour Queuing Analysis**

| Measurement   | Mathilda Ave & Almanor Ave | Mathilda Ave & San Aleso Ave | San Aleso Ave & Ahwanee Ave | Borregas Ave & Ahwanee Ave | Fair Oaks Ave & Ahwanee Ave | Fair Oaks Ave & Maude Ave | Wolfe Rd & Maude Ave | Wolfe Rd & Central Expwy Ramps |     |
|---|----------------------------|------------------------------|-----------------------------|----------------------------|-----------------------------|---------------------------|----------------------|--------------------------------|-----|
|   | WBL                        | SBL                          | NB                          | EB                         | EBLT <sup>3</sup>           | NBL <sup>3</sup>          | NBL                  | NBL <sup>3</sup>               | SBL |
| <b>Existing</b>   |                            |                              |                             |                            |                             |                           |                      |                                |     |
| Cycle/Delay <sup>1</sup> (sec)  | 170                        | 170                          | 9.7                         | 8.1                        | 75                          | 175                       | 8.3                  | 105                            | 160 |
| Volume (vphpl)  | 42                         | 63                           | 62                          | 116                        | 255                         | 122                       | 168                  | 393                            | 30  |
| Avg. Queue (veh./ln.)   | 2                          | 3                            | 0                           | 0                          | 5                           | 6                         | 0                    | 11                             | 1   |
| Avg. Queue <sup>2</sup> (ft./ln)  | 50                         | 75                           | 0                           | 0                          | 125                         | 150                       | 0                    | 275                            | 25  |
| 95th % . Queue (veh./ln.)   | 5                          | 6                            | 1                           | 1                          | 9                           | 10                        | 2                    | 17                             | 3   |
| 95th % . Queue (ft./ln)   | 125                        | 150                          | 25                          | 25                         | 225                         | 250                       | 50                   | 425                            | 75  |
| Storage (ft./ ln.)  | 270                        | 200                          | 85                          | 50                         | 100                         | 140                       | 750                  | 300                            | 290 |
| Adequate (Y/N)  | Y                          | Y                            | Y                           | Y                          | N                           | N                         | Y                    | N                              | Y   |
| <b>Background</b>   |                            |                              |                             |                            |                             |                           |                      |                                |     |
| Cycle/Delay <sup>1</sup> (sec)  | 170                        | 170                          | 9.7                         | 8.3                        | 75                          | 175                       | 9.1                  | 105                            | 160 |
| Volume (vphpl)  | 42                         | 130                          | 73                          | 128                        | 271                         | 132                       | 221                  | 426                            | 68  |
| Avg. Queue (veh./ln.)   | 2                          | 6                            | 0                           | 0                          | 6                           | 6                         | 1                    | 12                             | 3   |
| Avg. Queue <sup>2</sup> (ft./ln)  | 50                         | 150                          | 0                           | 0                          | 150                         | 150                       | 25                   | 300                            | 75  |
| 95th % . Queue (veh./ln.)   | 5                          | 10                           | 1                           | 1                          | 10                          | 11                        | 2                    | 18                             | 6   |
| 95th % . Queue (ft./ln)   | 125                        | 250                          | 25                          | 25                         | 250                         | 275                       | 50                   | 450                            | 150 |
| Storage (ft./ ln.)  | 270                        | 200                          | 85                          | 50                         | 100                         | 140                       | 750                  | 300                            | 290 |
| Adequate (Y/N)  | Y                          | N                            | Y                           | Y                          | N                           | N                         | Y                    | N                              | Y   |
| <b>Background plus Project</b>  |                            |                              |                             |                            |                             |                           |                      |                                |     |
| Cycle/Delay <sup>1</sup> (sec)  | 170                        | 170                          | 14.7                        | 9.3                        | 75                          | 175                       | 9.2                  | 105                            | 160 |
| Volume (vphpl)  | 101                        | 235                          | 310                         | 220                        | 296                         | 159                       | 235                  | 440                            | 80  |
| Avg. Queue (veh./ln.)   | 5                          | 11                           | 1                           | 1                          | 6                           | 8                         | 1                    | 13                             | 4   |
| Avg. Queue <sup>2</sup> (ft./ln)  | 125                        | 275                          | 25                          | 25                         | 150                         | 200                       | 25                   | 325                            | 100 |
| 95th % . Queue (veh./ln.)   | 9                          | 17                           | 3                           | 2                          | 10                          | 13                        | 2                    | 19                             | 7   |
| 95th % . Queue (ft./ln)   | 225                        | <b>425</b>                   | 75                          | 50                         | 250                         | <b>325</b>                | 50                   | <b>475</b>                     | 175 |
| Storage (ft./ ln.)  | 270                        | <b>200</b>                   | 85                          | 50                         | 100                         | <b>140</b>                | 750                  | <b>300</b>                     | 290 |
| Adequate (Y/N)  | Y                          | <b>N</b>                     | Y                           | Y                          | N                           | <b>N</b>                  | Y                    | <b>N</b>                       | Y   |
| <ol style="list-style-type: none"> <li>Vehicle queue calculations based on cycle length for signalized intersections, and delay for unsignalized intersections</li> <li>Assumes 25 Feet Per Vehicle Queued</li> <li>Cycle length calibrated so calculated average queue length match conditions observed in the field.</li> </ol> |                            |                              |                             |                            |                             |                           |                      |                                |     |
| <b>Bold</b> indicates project traffic would lengthen the 95th percentile queues that are already overflowing the storage space under background conditions.   |                            |                              |                             |                            |                             |                           |                      |                                |     |

**Table 20**  
**PM school Peak Hour Queuing Analysis**

| Measurement   | Mathilda Ave &<br>Almanor Ave | Mathilda Ave &<br>San Aleso Ave | San Aleso Ave &<br>Ahwanee Ave | Borregas Ave &<br>Ahwanee Ave | Fair Oaks Ave &<br>Ahwanee Ave | Fair Oaks Ave &<br>Maude Ave |
|---|-------------------------------|---------------------------------|--------------------------------|-------------------------------|--------------------------------|------------------------------|
|   | WBL                           | SBL                             | NB                             | EB                            | EBLT                           | NBL                          |
| <b>Existing</b>   |                               |                                 |                                |                               |                                |                              |
| Cycle/Delay <sup>1</sup> (sec)  | 120                           | 70                              | 9.3                            | 7.7                           | 120                            | 120                          |
| Volume (vphpl)  | 23                            | 74                              | 53                             | 150                           | 171                            | 68                           |
| Avg. Queue (veh/ln.)  | 1                             | 1                               | 0                              | 0                             | 6                              | 2                            |
| Avg. Queue <sup>2</sup> (ft./ln)  | 25                            | 25                              | 0                              | 0                             | 150                            | 50                           |
| 95th % Queue (veh/ln.)  | 2                             | 4                               | 1                              | 1                             | 10                             | 5                            |
| 95th % Queue (ft./ln)   | 50                            | 100                             | 25                             | 25                            | 250                            | 125                          |
| Storage (ft./ ln.)  | 270                           | 200                             | 85                             | 50                            | 100                            | 140                          |
| Adequate (Y/N)  | Y                             | Y                               | Y                              | Y                             | N                              | Y                            |
| <b>Background</b>   |                               |                                 |                                |                               |                                |                              |
| Cycle/Delay <sup>1</sup> (sec)  | 120                           | 70                              | 9.4                            | 7.8                           | 120                            | 120                          |
| Volume (vphpl)  | 23                            | 130                             | 58                             | 161                           | 186                            | 67                           |
| Avg. Queue (veh/ln.)  | 1                             | 3                               | 0                              | 0                             | 6                              | 2                            |
| Avg. Queue <sup>2</sup> (ft./ln)  | 25                            | 75                              | 0                              | 0                             | 150                            | 50                           |
| 95th % Queue (veh/ln.)  | 2                             | 5                               | 1                              | 1                             | 11                             | 5                            |
| 95th % Queue (ft./ln)   | 50                            | 125                             | 25                             | 25                            | 275                            | 125                          |
| Storage (ft./ ln.)  | 270                           | 200                             | 85                             | 50                            | 100                            | 140                          |
| Adequate (Y/N)  | Y                             | Y                               | Y                              | Y                             | N                              | Y                            |
| <b>Background plus Project</b>  |                               |                                 |                                |                               |                                |                              |
| Cycle/Delay <sup>1</sup> (sec)  | 120                           | 70                              | 11.2                           | 8.4                           | 120                            | 120                          |
| Volume (vphpl)  | 64                            | 188                             | 219                            | 227                           | 203                            | 83                           |
| Avg. Queue (veh/ln.)  | 2                             | 4                               | 1                              | 1                             | 7                              | 3                            |
| Avg. Queue <sup>2</sup> (ft./ln)  | 50                            | 100                             | 25                             | 25                            | 175                            | 75                           |
| 95th % Queue (veh/ln.)  | 5                             | 7                               | 2                              | 2                             | 11                             | 6                            |
| 95th % Queue (ft./ln)   | 125                           | 175                             | 50                             | 50                            | 275                            | <b>150</b>                   |
| Storage (ft./ ln.)  | 270                           | 200                             | 85                             | 50                            | 100                            | <b>140</b>                   |
| Adequate (Y/N)  | Y                             | Y                               | Y                              | Y                             | N                              | <b>N</b>                     |
| <p>1. Vehicle queue calculations based on cycle length for signalized intersections, and delay for unsignalized intersections</p> <p>2. Assumes 25 Feet Per Vehicle Queued</p> <p><b>Bold</b> indicates project traffic would lengthen the 95th percentile queues that are already overflowing the storage space under background conditions.</p> |                               |                                 |                                |                               |                                |                              |

**Table 21**  
**PM commute Peak Hour Queuing Analysis**

|   | Mathilda Ave<br>& Almanor<br>Ave | Mathilda Ave<br>& San Aleso<br>Ave | San Aleso Ave<br>& Ahwanee<br>Ave | Borregas Ave<br>& Ahwanee<br>Ave |
|---|----------------------------------|------------------------------------|-----------------------------------|----------------------------------|
| Measurement   | WBL                              | SBL                                | NB                                | EB                               |
| <b>Existing</b>   |                                  |                                    |                                   |                                  |
| Cycle/Delay <sup>1</sup> (sec)  | 150                              | 150                                | 10.5                              | 9.6                              |
| Volume (vphpl)  | 31                               | 111                                | 106                               | 342                              |
| Avg. Queue (veh./ln.)   | 1                                | 5                                  | 0                                 | 1                                |
| Avg. Queue <sup>2</sup> (ft./ln)  | 25                               | 125                                | 0                                 | 25                               |
| 95th % Queue (veh./ln.)   | 3                                | 8                                  | 1                                 | 3                                |
| 95th % Queue (ft./ln)   | 75                               | 200                                | 25                                | 75                               |
| Storage (ft./ ln.)  | 270                              | 200                                | 85                                | 50                               |
| Adequate (Y/N)  | Y                                | Y                                  | Y                                 | N                                |
| <b>Background</b>   |                                  |                                    |                                   |                                  |
| Cycle/Delay <sup>1</sup> (sec)  | 150                              | 150                                | 10.7                              | 9.9                              |
| Volume (vphpl)  | 31                               | 192                                | 114                               | 360                              |
| Avg. Queue (veh./ln.)   | 1                                | 8                                  | 0                                 | 1                                |
| Avg. Queue <sup>2</sup> (ft./ln)  | 25                               | 200                                | 0                                 | 25                               |
| 95th % Queue (veh./ln.)   | 3                                | 13                                 | 1                                 | 3                                |
| 95th % Queue (ft./ln)   | 75                               | 325                                | 25                                | 75                               |
| Storage (ft./ ln.)  | 270                              | 200                                | 85                                | 50                               |
| Adequate (Y/N)  | Y                                | N                                  | Y                                 | N                                |
| <b>Background plus Project</b>  |                                  |                                    |                                   |                                  |
| Cycle/Delay <sup>1</sup> (sec)  | 150                              | 150                                | 12                                | 10.2                             |
| Volume (vphpl)  | 47                               | 210                                | 177                               | 383                              |
| Avg. Queue (veh./ln.)   | 2                                | 9                                  | 1                                 | 1                                |
| Avg. Queue <sup>2</sup> (ft./ln)  | 50                               | 225                                | 25                                | 25                               |
| 95th % Queue (veh./ln.)   | 4                                | 14                                 | 2                                 | 3                                |
| 95th % Queue (ft./ln)   | 100                              | <b>350</b>                         | 50                                | 75                               |
| Storage (ft./ ln.)  | 270                              | <b>200</b>                         | 85                                | 50                               |
| Adequate (Y/N)  | Y                                | <b>N</b>                           | Y                                 | N                                |
| <p>1. Vehicle queue calculations based on cycle length for signalized intersections, and delay for unsignalized intersections</p> <p>2. Assumes 25 Feet Per Vehicle Queued</p> <p><b>Bold</b> indicates project traffic would lengthen the 95th percentile queues that are already overflowing the storage space under background conditions.</p> |                                  |                                    |                                   |                                  |

## Potential Impacts to Transit Facilities

### Transit Facility Impacts

Within the project vicinity, VTA Bus Route 54 stops along Mathilda Avenue between San Aleso Avenue and Ahwanee Avenue, approximately 1,700 feet from the project area. VTA Bus Route 55 stops at the intersection of Sunnyvale Avenue and Maude Avenue, which is approximately one mile from the project site. VTA Bus Route 26 stops at the intersection of Fair Oaks Avenue and Maude Avenue, which is located approximately 1.5 miles from the project site. Only the stop for Bus Route 54 is within walking distance, while the stops for Bus Routes 55 and 26 are within biking distance. While Bus Route 54 stops within walking distance, this bus operates with 30-minute headways and would likely see a minor ridership increase on the one bus that arrives before school starts or after school ends. Bus Routes 55 and 26 stop farther away from the project site, and would require students to either walk a long distance or bike to school. Therefore, it is expected that the project would minorly increase the bus ridership.

The project is also served by two light rail stations (Moffett Park Station and Fair Oaks Station) and one Caltrain station (Sunnyvale Station). Bus connectivity between the project site and the light rail stations is poor, and students who take the light rail train would need to walk to the project site. Since both light rail stations are located outside of walking distance, it is expected that the project would generate only minor increases in ridership on the light rail trains. The Sunnyvale Caltrain station is a stop for the Baby-Bullet train, but it is located outside of walking distance to the proposed school and the bus that connects the project site and the Caltrain station (Bus Route 54 and 55) runs on only 30-minute headways. Therefore, it is expected that the project would generate only minor increases in ridership on Caltrain.

According to the traffic survey conducted by Summit Public Schools in January 2016, the surveyed schools had varying degrees of public transit utilization (between 0% and 5%), depending on the school proximity to transit and the types of transit serving the school. The 5% transit utilization rate was found at a school served by 3 bus lines. As discussed above, it is not expected that many of the students would take transit to school. Assuming 3% of the 400 students were to take transit to school, that would be 12 students. It is expected that the VTA bus service and the Caltrain service would both have the capacity to accommodate 12 additional transit riders.

### Transit Travel Time Impacts

Currently, VTA Bus Route 54 travels on Mathilda Avenue within the project vicinity, Bus Route 55 travels on Sunnyvale Avenue, Maude Avenue, Fair Oaks Avenue and Duane Avenue within the project vicinity, and Bus Route 26 travels on Fair Oaks Avenue within the project vicinity. To assess the transit travel time impacts, the bus route travel times in the study area under background plus project conditions were compared to background conditions. Bus route travel times are estimated using published schedules and adjusted based on delays experienced at study intersection turning movements. VTA does not have established criteria to determine impact to transit services. Therefore, this analysis is presented for information purposes only.

The results show that there would be minimal changes in transit delay in the study area under the project scenario. For most bus routes, the project would increase route delay by only a few seconds. For Bus Route 54 during the AM peak hour, the project would increase route delay by 22 seconds compared to background conditions. The proposed project is consistent with the Peery Park Specific Plan (PPSP), and the cumulative transit impacts related to PPSP buildout are disclosed in the *Peery Park Specific Plan TIA* report dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc. The project is expected to worsen left-turn queuing at three left-turn movements (identified in above section). None of the transit routes would turn left at these three left-turn movements. The results of the transit travel time comparison are summarized in Table 23.

**Table 22**  
**Transit Travel Time Delay Analysis**

| Route                  | Peak Hour | Existing           |                                  | Background                       | Background + Project             |                          |                            |
|------------------------|-----------|--------------------|----------------------------------|----------------------------------|----------------------------------|--------------------------|----------------------------|
|                        |           | Travel Time<br>min | Delay in the<br>Study Area (sec) | Delay in the<br>Study Area (sec) | Delay in the<br>Study Area (sec) | Change in<br>Delay (sec) | % Change in<br>Travel Time |
| <b><i>Route 26</i></b> |           |                    |                                  |                                  |                                  |                          |                            |
| Eastbound              | AM        | 106                | 112.4                            | 120.1                            | 122.3                            | 2.2                      | 0.035%                     |
|                        | School PM | 116                | 103.6                            | 106.3                            | 107.9                            | 1.6                      | 0.023%                     |
|                        | PM        | 122                | 104                              | 153                              | 154.4                            | 1.4                      | 0.019%                     |
| Westbound              | AM        | 121                | 82.4                             | 105.3                            | 106.2                            | 0.9                      | 0.012%                     |
|                        | School PM | 119                | 105.6                            | 103.8                            | 104.5                            | 0.7                      | 0.010%                     |
|                        | PM        | 119                | 127.4                            | 127.9                            | 128.3                            | 0.4                      | 0.006%                     |
| <b><i>Route 54</i></b> |           |                    |                                  |                                  |                                  |                          |                            |
| Northbound             | AM        | 29                 | 103.4                            | 157.9                            | 179.9                            | 22.0                     | 1.226%                     |
|                        | School PM | 30                 | 141.4                            | 149.9                            | 149.5                            | -0.4                     | -0.022%                    |
|                        | PM        | 32                 | 236.8                            | 242.8                            | 243.3                            | 0.5                      | 0.026%                     |
| Southbound             | AM        | 34                 | 189.2                            | 186.2                            | 192.5                            | 6.3                      | 0.309%                     |
|                        | School PM | 33                 | 89.4                             | 109.7                            | 110.1                            | 0.4                      | 0.020%                     |
|                        | PM        | 40                 | 143.9                            | 297.9                            | 301.2                            | 3.3                      | 0.129%                     |
| <b><i>Route 55</i></b> |           |                    |                                  |                                  |                                  |                          |                            |
| Northbound             | AM        | 60                 | 122                              | 131                              | 134.2                            | 3.2                      | 0.089%                     |
|                        | School PM | 68                 | 114.5                            | 119.2                            | 120.5                            | 1.3                      | 0.032%                     |
|                        | PM        | 67                 | 157.2                            | 159.3                            | 159.7                            | 0.4                      | 0.010%                     |
| Southbound             | AM        | 55                 | 135.6                            | 145.6                            | 145.7                            | 0.1                      | 0.003%                     |
|                        | School PM | 56                 | 116.8                            | 122.6                            | 123.3                            | 0.7                      | 0.021%                     |
|                        | PM        | 66                 | 130                              | 144                              | 144.6                            | 0.6                      | 0.015%                     |

## Potential Impact to Pedestrian Facilities

Within the project vicinity, it is anticipated that students from the Snail neighborhood, Lowlanders neighborhood and Morse park neighborhood would be the students most likely to walk to school. These neighborhoods are all located within an approximately 1-mile radius of the project site. From the Morse Park neighborhood, students could cross US 101 using the pedestrian/bicycle bridge at Borregas Avenue. At the northern end of the bridge, there is a crosswalk across the west leg of the intersection at Borregas Avenue and Weddell Drive. At the southern end of the bridge, there are crosswalks across all legs of the intersection at Borregas Avenue and Ahwanee Avenue. There is continuous sidewalk from the southern end of the bridge to the project site. From the Snail neighborhood, continuous sidewalks exist on Borregas Avenue, Morse Avenue, Ahwanee Avenue and Maude Avenue. There exist continuous sidewalks if students walk to school using Ahwanee Avenue. For students using Maude Avenue, Mathilda Avenue and San Aleso Avenue to walk to school, there is continuous sidewalk until they reach San Aleso Avenue. Between the project site and Mathilda Avenue, sidewalks are discontinuous along both sides of San Aleso Avenue. From the Lowlanders neighborhood, students would walk to Maude Avenue from any one of the north-south streets, all of which have sidewalks. Once they reach Maude Avenue, students could either walk north to Ahwanee Avenue to access the project site or walk west to Mathilda Avenue.

In general, pedestrian facilities are present along most of the streets within the project vicinity; however, the sidewalks along San Aleso Avenue south of the project site are discontinuous. The discontinuous sidewalks could discourage students from using transit, since the only bus (route 54) stopping within walking distance of the project site requires students to walk along a part of San Aleso Avenue without sidewalks to get to school. The discontinuous sidewalks could also force students to cut-through properties between Mathilda Avenue and San Aleso Avenue. The *Peery Park Specific Plan* identifies San Aleso Avenue as a roadway needing new/improved sidewalks. The project applicant should coordinate with City staff to improve the sidewalk fronting the project site per the City's current design standard.

Since the intersection at Mathilda Avenue and San Aleso Avenue is the closest intersection south of the project site, the crosswalks should be upgraded to yellow high visibility crosswalks for all legs of the intersection. The "School Safety Assessment" section below discusses in detail the type of crosswalk recommended at this location and complementary infrastructure that should be upgraded as well.

An apartment complex exists on the southwest quadrant at the intersection of San Aleso Avenue and Ahwanee Avenue. Potential students from this complex enrolled in the proposed high school would not have a marked location to cross San Aleso Avenue. Therefore, it is recommended that the project applicant coordinate with City staff to install a high visibility crosswalk across the south leg of the intersection at San Aleso Avenue and Ahwanee Avenue. The "School Safety Assessment" section below discusses in detail the type of crosswalk recommended at this location. At the proposed crosswalk location, the existing pedestrian ramps on either side of the crosswalk are not ADA compliant. The project applicant should coordinate with City staff to install ADA-compliant pedestrian ramps on both sides of the crosswalk.

## Potential Impact to Bicycle Facilities

Within the project vicinity, the John W. Christian Greenbelt Trail is an east-west running Class I bike path north of US 101. It extends eastward from Borregas Avenue to the Calabazas Creek Trail. There exists a pedestrian/bicycle bridge connecting Borregas Avenue across US 101. Within the immediate project vicinity, Class II bike lanes are present on Mathilda Avenue, Borregas Avenue and Maude Avenue west of Borregas Avenue. San Aleso Avenue carries low traffic volumes and could be conducive to bicyclists. Overall, the project site is well connected to existing bicycle facilities.

## Bicycle Parking Requirements

According to the City of Sunnyvale Municipal Code 19.46.150, the proposed project is required to provide bicycle parking in the amount of five percent of the total number of vehicular parking spaces provided. The project currently proposes 76 vehicle parking spaces (see discussion in the Parking Section on Pg 74) and would be required to provide four bicycle parking spaces. The project proposes 40 bicycle parking spaces at the southwest corner of the school building, which would meet the bicycle parking requirement.

## Site Access and Circulation

This section describes the site access and circulation of the proposed project. This review is based on project site plans shown on Figure 2. This section focuses the discussion on general site access and circulation. The pick-up and drop-off operations are discussed in the following section.

### Site Access

Site access was evaluated to determine the adequacy of the site driveways with regard to corner sight distance. The project site is served by two driveways on San Aleso Avenue. The southern driveway would be a right-turn inbound-only driveway, while the northern driveway would be a right-turn outbound-only driveway.

### Sight Distance

The project access points should be free and clear of any obstructions to optimize sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other roadway users travelling on adjacent roadways. Landscaping and parking should not conflict with a driver's ability to locate a gap in traffic and see oncoming pedestrians and bicyclists. Adequate corner sight distance (sight distance triangles) should be provided at all site access points in accordance with City standards.

Sight distance requirements vary depending on the roadway speeds. The speed limit on San Aleso Avenue is 25 mph. The Caltrans recommended stopping sight distance is 150 feet. To maintain the Caltrans recommended stopping sight distance, it is recommended that on-street parking within 20 feet south of the outbound-only driveway be prohibited. Because morning drop-offs could be done very quickly along the curbside, some parents may choose to ignore the no-parking signs and drop off students within this 20-feet of no-parking zone. Therefore, a no-stopping sign is recommended at this location instead of a no-parking sign.

The project applicant should ensure that there would not be tall vegetation or objects that could block a driver's view 150 feet down the road as they exit the project site.

### Cut-Through Traffic

For vehicles on southbound Mathilda Avenue accessing the project site, the routes to the project site (turning onto Ahwanee Avenue or San Aleso Avenue) are both circuitous. Some vehicles might therefore desire to cut-through the properties between Mathilda Avenue and San Aleso Avenue. It is recommended that the school discourage parents from cutting through parking lots of private properties to access the project site. If the property owners believe too many vehicles are cutting across their parking lots, they may, at their own expense, elect to block off their driveways on San Aleso Avenue during school drop-off and pick-up periods.

### Pedestrian Site Access

The school building proposes to have two main entrances, one each on the east and west sides of the building. The student entrance would be on the east side of the building, while the entrance on the west side of the building would be a visitor's entrance and is assumed to be closed during morning drop-off and afternoon pick-up periods. The project proposes a sidewalk along the north property line that connects to the sidewalk wrapping around the school building. This provides continuous sidewalk for students coming from north of the project site on San Aleso Avenue, and students would not have to cross any drive aisles on site to reach the building. The project proposes a marked pedestrian walkway extending from the west edge of the project site just north of the inbound-only driveway to the south sidewalk wrapping around the school building. This walkway would provide enhanced driver awareness of crossing students on-site. Students coming from south of the project site on San Aleso Avenue would need to cross the inbound driveway to access the proposed on-site marked walkway.



## **Recommendation**

It is recommended that the school dedicate staff to direct vehicular traffic at the inbound driveway as well as at the on-site marked walkway to ensure driver awareness of crossing students.

### **Bicycle Site Access**

The proposed bike parking spaces are located along the west side of the school building, just north of the proposed on-site pedestrian walkway. Students who bike to school would have adequate access to the bike parking spaces. Students would walk along the sidewalk wrapping around the school building to enter the school.

### **On-Site Circulation**

The proposed school will repurpose the existing building on site, which is situated in the middle of the project site. Parking is provided both west and east of the building. There exists a 20-foot two-way drive aisle along the southern edge of the building that extends eastward from the inbound-only driveway to the eastern parking area. Between the two project driveways there is also a one-way northbound drive aisle that is just west of the building. This northbound drive aisle provides access to the parking spaces west of the building. Parking space and drive aisle dimensions are mostly not shown on the site plan. Prior to final design, the project applicant should ensure that all dimensions meet the City requirements.

### **Car Lifts**

25 of the 76 parking spaces proposed on site would be provided via a three-level automated car lift system. The configurations of the car lifts are not shown on the site plan. The project applicant should ensure that all car lift spaces are adequately sized to accommodate all passenger car types. Passenger vehicles can have heights up to seven feet, so the lifts need to be able to accommodate this height.

According to CityLift, the vendor for the car lifts, the average retrieval time for a vehicle is approximately 33 seconds. Each lift can serve only one car at a time. During school drop-off and pick-up periods, many vehicles driven by parents would circulate the project site at the area where the car lifts are located. To prevent potential queuing issues emerging from a vehicle waiting to get into the car lifts blocking the drive aisle, it is recommended that the car lift operations be prohibited during the main school drop-off and pick-up periods.

### **Garbage Trucks Access and Circulation**

The project site plan proposes a trash enclosure at the southeast corner of the project site. Adequate garbage truck circulation is provided on site.

## Pick-Up and Drop-Off Operations

### Morning Drop-Off Operations

As discussed above, the project with a 400-student capacity is expected to generate 508 trips by students or parents (268 in and 240 out) during the AM peak. It is expected that the morning drop-off trips would arrive mostly within a 30-minute period prior to the school start time (7:45 AM to 8:15 AM). Staff trips are expected to arrive before the 30-minute peak period of student drop-off and are therefore excluded from the morning drop-off operations analysis.

As shown on the site plan, the main drop-off area is located east of the school building. Vehicles would enter the project inbound-only driveway, drive eastbound along the 20-foot drive aisle along the south project site edge, loop counterclockwise around the parking lot east of the school building, and drop off along the east building edge. Vehicles would then drive westbound along the 20-foot drive aisle, turn right onto the northbound-only drive aisle and exit the site via the outbound-only driveway. With this configuration, the project would have approximately 650 feet of on-site queuing space for vehicles before they drop off students. Based on engineering judgement, assuming 50% of students are dropped off within a 20-minute period (7:45 AM to 8:05 AM), 30% of students are dropped off between 8:05 AM and 8:10 AM and the remaining 20% of students are dropped off between 8:10 AM and 8:15 AM, and assuming the school implements a 5-car drop-off system (discussed later), the drop-off queue based on a 268-trip inbound demand (see discussion in Chapter 4) could be up to 700 feet between 8:10 AM and 8:15 AM. Since the project is a high school, assuming some of the 268 inbound trips are students driving to school and would not join the drop-off queue, it is expected that the drop-off queue would be contained entirely on site.

### Recommended Drop-Off System

As discussed above, the school needs to implement an efficient drop-off system to be able to contain all vehicles on site. Hexagon recommends the school implement a 5-car drop-off system, where 5 cars drive up to the drop-off zone and drop off at the same time. Staff members need to be stationed at the front end of the drop-off zone and direct the cars to leave the drop-off zone only when all 5 vehicles have finished dropping off. As soon as the vehicles leave, the next set of 5 cars would enter the drop-off zone. This system could allow the drop-off zone to serve approximately 10.5 vehicles per minute. It is recommended that the school dedicate a 125-foot space along the east side of the building as the drop-off zone. To ensure an efficient vehicular flow, it is recommended that the school block off all parking spaces in the east parking lot. Further, it is recommended that the school discourage parents from dropping off students while waiting in queue as oncoming vehicles may not be aware of such student crossings.

## **Afternoon Pick-Up Operations**

As discussed above, the project with a 400-student capacity is expected to generate 332 trips by students or parents (156 in and 176 out) during the PM school peak period. The school is expected to generate 112 trips by students or parents during the PM commute peak period. Since most of the student pick-up operations will occur during the PM school peak period, this discussion focuses on the pick-up operations during the PM school peak period. Afternoon school dismissal is proposed at 3:25 PM.

### **Recommendations**

School pick-up operations are different from drop-off operations because parents typically arrive prior to the school dismissal time, park somewhere and wait for students. Once school is dismissed, some parents may choose to drive into the school to pick up students, while others would ask students to walk to the car parked somewhere off site. Parents who park off-site would likely park on-street on San Aleso Avenue or on one of the properties between Mathilda Avenue and San Aleso Avenue. As discussed above, San Aleso Avenue has discontinuous sidewalks and there are no mid-segment crosswalks crossing San Aleso Avenue near the project site. Therefore, students walking to cars parked off-site would have to either walk on the street or cross the street at unmarked locations. To minimize pedestrian exposure to on-street traffic, it is recommended that the school discourage parents from parking off-site to pick up students.

Afternoon pick-up operations should occur on the project site. However, the project site has limited queuing space on site (approximately 650 feet) and would be able to accommodate only approximately 26 vehicles to queue on site. If more than 26 vehicles arrive at school prior to school dismissal, they would have to park on the street or queue onto the street. It is recommended that the school discourage parents from arriving prior to school dismissal to pick up students. Pick-up operations should occur exclusively along the east side of the building. To avoid unnecessary vehicle conflicts, it is recommended that the school prohibit parents from driving into any parking stalls on-site during the pick-up period.

## School Safety Assessment

The roadway, bicycle and pedestrian facilities adjacent to the proposed school were evaluated to assess the safety for students and parents. This section discusses proposed improvements the school should implement to improve safety for all road users related to the school.

Existing roadway, bicycle and pedestrian facilities have been discussed in sections above. The key deficiencies that would require improvements are identified below:

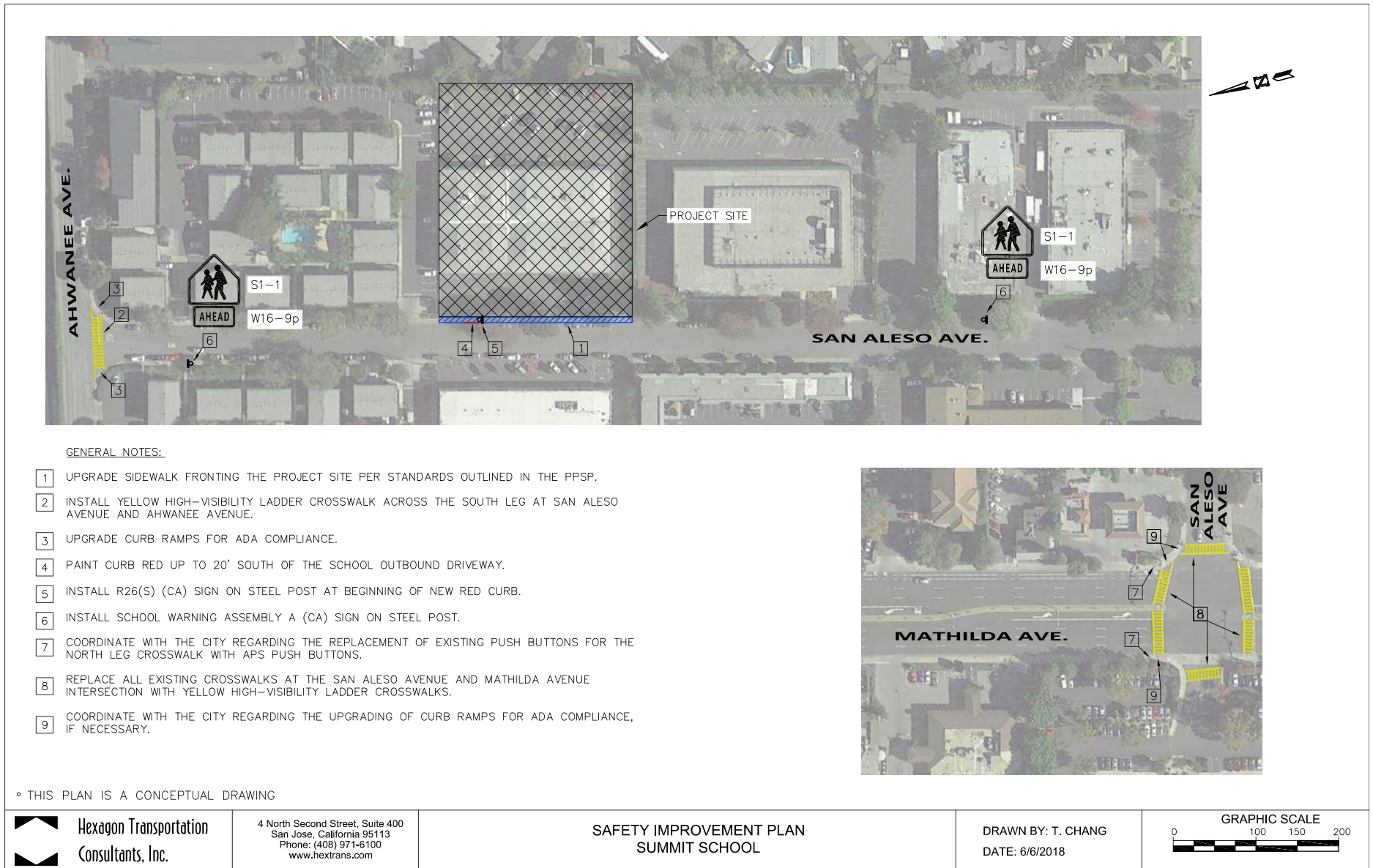
- San Aleso Avenue has incomplete sidewalks
- The intersection of San Aleso Avenue and Ahwanee Avenue lacks a marked crosswalk
- The intersection of Mathilda Avenue and San Aleso Avenue lacks yellow-striped crosswalks
- Sight distance is an issue at the outbound-only driveway

### Recommendations

In addition, the proposed school would need accompanying signage along nearby roadways to alert drivers of the presence of a school. The recommended improvements to improve safety for all road users related to the school are discussed below and shown on Figure 15:

- The project applicant should coordinate with City staff to improve the sidewalk on the east side of San Aleso Avenue fronting the project site to the standards outlined in the *Peery Park Specific Plan*.
- The project applicant shall install a yellow high-visibility ladder crosswalk across the south leg of the intersection at San Aleso Avenue and Ahwanee Avenue. The project applicant shall coordinate with City staff to ensure the crosswalk is installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). Currently, the pedestrian curb ramps at either side of the proposed crosswalk are not ADA compliant. The project applicant shall upgrade the curb ramps to meet ADA standards.
- The project applicant shall install yellow high-visibility ladder crosswalks across all legs of the intersection at Mathilda Avenue and San Aleso Avenue. The project applicant shall coordinate with City staff to ensure the crosswalks are installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). The project applicant shall coordinate with City staff to upgrade the pedestrian push buttons for the north leg crosswalk with APS push buttons. The project applicant shall coordinate with City staff to upgrade the curb ramps to meet ADA standards, if necessary.
- The project applicant shall prohibit on-street parking along the east side of San Aleso Avenue within 20 feet south of the project outbound-only driveway. The project applicant shall install red curb or install “No Stopping Any Time” R26(S) (CA) signs. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards. The project applicant should ensure that there would not be tall vegetation or objects that could block a driver's view 150 feet down the road as they exit the project site.
- Per the most recent edition of CA MUTCD (2014 Edition, Revision 3) at the time of this report, streets with a 25-mph speed limit that are contiguous to a school building shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. Since San Aleso Avenue has a speed limit of 25 mph, the project applicant shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards and City’s standards and guidelines.

824 San Aleso Ave. Summit High School



**Figure 15  
Recommended School Safety Improvements**



## Parking

The project site is located within the Peery Park Specific Plan (PPSP) area, and the project parking requirements should be subject to requirements outlined in the *Peery Park Specific Plan*. However, the PPSP plan does not specify a parking requirement for high school use. The City of Sunnyvale parking requirement (Municipal Code 19.46.100) states that high school uses (Grades 9-12) shall provide at a minimum 0.25 parking spaces per student. The project at capacity would enroll 400 students ranging from Grade 9 to Grade 12 and would be required to provide 100 parking spaces. The project proposes 76 parking spaces on site, 25 of which would be provided via parking lifts.

According to the traffic survey conducted by Summit Public Schools in January 2016, for every 100 students, seven students would drive to and park their cars at the school. Based on this data and the proposed enrollment, it is expected that 28 students would drive to school. Assuming the school reserves 25 parking spaces for the staff (one for each staff member), the expected parking demand would be 53 spaces. The project has also indicated that student parking at the school will be given parking permits by lottery. Therefore, while the school parking supply does not meet the City's parking requirement, it is anticipated that the 76 proposed parking spaces on site would be sufficient to meet the parking demand. It is possible that students who do not get the lottery could park their cars off site. It is recommended that the school monitor student activities and prohibit students from parking off site.

## 6. Conclusions

---

This report presents the results of the Transportation Impact Analysis (TIA) prepared for the proposed Summit high school located at 824 San Aleso Avenue in Sunnyvale, CA. The project proposes to re-purpose the existing building on-site into a 17-classroom high school with a 400-student capacity and 25 full-time staff. The project would be accessed via the existing driveways on site.

This study was conducted for the purpose of identifying the potential near-term transportation impacts related to the proposed high school project. Because the project is consistent with the recently-adopted Peery Park Specific Plan (PPSP), potential long-term traffic impacts have already been studied in the PPSP TIA report dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc.

Since the project is estimated to generate more than 100 peak hour trips, the potential impacts of the project were evaluated following the standards and methodologies set forth by the City of Sunnyvale and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP). The traffic study included an analysis of AM (7-9 AM), PM school (2-4 PM), and PM commute (4-6 PM) peak hour traffic conditions for 24 intersections in the vicinity of the project site. One of the study intersections is a CMP intersection, and seven of the study intersections are unsignalized intersections. The study intersections were selected to include locations where the proposed project is expected to generate 10 or more peak-hour trips per lane. Project impacts on other transportation categories, such as vehicle queuing, pedestrian, bicycle and transit facilities, site access and on-site circulation, were determined on the basis of engineering judgment.

The Santa Clara County VTA CMP guidelines require that freeway segments be evaluated to determine the impact of added traffic for projects that generate trips equal to or greater than one percent of the freeway segment's capacity. Within the project vicinity, six freeway segments and eight nearby freeway ramps were analyzed following the CMP guidelines.



## Intersection Level of Service Results

The intersection level of service analysis concluded that based on City of Sunnyvale intersection impact criteria, the project would not generate a significant intersection impact at any study intersections.

## Freeway Impacts

The results of the CMP freeway analysis show that the freeway segments currently operating at acceptable levels of service would continue to operate at acceptable levels of service under project conditions. For freeway segments currently operating at unacceptable LOS F, the project generated freeway traffic would not exceed 1%, thus the project freeway impacts would be less than significant.

## Freeway Ramp Impacts

The results of the ramp analysis show that the study freeway ramps currently have sufficient capacity to service the existing traffic volumes and the ramps would continue to have sufficient capacity to serve the project traffic volumes under project conditions.

A ramp queuing analysis was conducted for the US 101 southbound on-ramp from northbound Mathilda Avenue, which is metered during the PM peak hour. The analysis found that under project conditions the maximum vehicle queue due to the ramp meter would be contained within the existing ramp storage area.

## PPSP Cumulative Impact Fair Share Contribution

The proposed project is estimated to generate a net 510 AM peak hour trips. Since this is a school project, the PPSP cumulative impact fee would apply only to student/parent trips generated outside of the City, as well as to staff trips. Based on the trip generation and distribution assumptions discussed in Chapter 4, the PPSP cumulative impact fee would apply to 231 net AM peak hour trips. According to the *ITE Trip Generation, 9<sup>th</sup> Edition*, the AM peak hour average trip generation rate for an office building is 1.56 trips per 1,000 s.f. The 231 net peak hour project trips would be equivalent to a 148,077 s.f. office building in terms of peak hour trip generation. Therefore, the project shall pay a fair share contribution for this square footage towards mitigating the PPSP cumulative impacts.

## Other Transportation Issues

Hexagon conducted a site plan review, queuing analysis, pedestrian, bicycle and transit facility analysis, school safety assessment and parking analysis for the proposed project. Our recommendations and potential improvements are listed below.

### Recommendations

- The project applicant should coordinate with City staff to improve the sidewalk on the east side of San Aleso Avenue fronting the project site to the standards outlined in the *Peery Park Specific Plan*.
- The project applicant shall install a yellow high-visibility ladder crosswalk across the south leg of the intersection at San Aleso Avenue and Ahwanee Avenue. The project applicant shall coordinate with City staff to ensure the crosswalk is installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). Currently, the pedestrian curb ramps at either side of the proposed crosswalk are not ADA compliant. The project applicant shall upgrade the curb ramps to meet ADA standards.
- The project applicant shall prohibit on-street parking along the east side of San Aleso Avenue within 20 feet south of the project outbound-only driveway. The project applicant shall install red curb or install “No Stopping Any Time” R26(S) (CA) signs. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards. The project applicant should ensure that there would not be tall vegetation or objects that could block a driver’s view 150 feet down the road as they exit the project site.
- The project applicant shall install yellow high-visibility ladder crosswalks across all legs of the intersection at Mathilda Avenue and San Aleso Avenue. The project applicant shall coordinate with City staff to ensure the crosswalks are installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). The project applicant shall coordinate with City staff to upgrade the pedestrian push buttons for the north leg crosswalk with APS push buttons. The project applicant shall coordinate with City staff to upgrade the curb ramps to meet ADA standards, if necessary.
- Per the most recent edition of CA MUTCD (2014 Edition, Revision 3) at the time of this report, streets with a 25-mph speed limit that are contiguous to a school building shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. Since San Aleso Avenue has a speed limit of 25 mph, the project applicant shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards and City’s standards and guidelines.
- Hexagon recommends the school implement a 5-car drop-off system, where 5 cars drive up to the drop-off zone and drop off at the same time. Staff members need to be stationed at the front end of the drop-off zone and direct the cars to leave the drop-off zone only when all 5 vehicles have finished dropping off. As soon as the vehicles leave, the next set of 5 cars would enter the drop-off zone. This system could allow the drop-off zone to serve approximately 10.5 vehicles per minute. It is recommended that the school dedicate a 125-foot space along the east side of the building as the drop-off zone. To ensure an efficient vehicular flow, it is recommended that the school block off all parking spaces in the east parking lot. Further, it is recommended that the school discourage parents from dropping off students while waiting in queue as oncoming vehicles may not be aware of such student crossings.

- It is recommended that the school discourage parents from parking off-site to pick up students or arriving prior to school dismissal to pick up students. It is recommended that the school prohibit parents from driving into any parking stalls on-site during the pick-up peak period. It is recommended that pick up operations occur exclusively along the east side of the building.
- It is recommended that the school discourage parents from cutting through parking lots of private properties to access the project site.
- It is recommended that the school dedicate staff to direct vehicular traffic at the inbound driveway as well as at the on-site marked walkway to ensure driver awareness of crossing students.
- Prior to final design, the project applicant should ensure that all parking dimensions meet the City requirements.
- The project applicant should ensure that all car lift spaces are adequately sized to accommodate all passenger car types. It is recommended that the car lift operations be prohibited during the main school drop-off and pick-up periods.
- Prior to final design, the project applicant should ensure that adequate garbage truck access and circulation is provided, if garbage trucks need to access the project site.
- It is recommended that the school monitor student activities and prohibit students who do not receive a parking lottery to drive to school, even if they are parking off site.

### **Potential Improvements**

- Fair Oaks Avenue south of Maude Avenue could be restriped to accommodate a longer northbound left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.
- Wolfe Road south of the Central Expressway ramps could be modified to accommodate a longer northbound left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.

**Summit School  
Final Transportation Impact Analysis  
Technical Appendices**

## **Appendix A**

### **Traffic Counts**

| North/South     | East/West                | Count Date    | AM                 |            |      |     |       |            |      |     |       |           |    |     |       |           |     |     | Grand Total | PM    |            |     |      |       |            |     |      |       |           |     |     |       |           |     |     | Grand Total |     |      |
|-----------------|--------------------------|---------------|--------------------|------------|------|-----|-------|------------|------|-----|-------|-----------|----|-----|-------|-----------|-----|-----|-------------|-------|------------|-----|------|-------|------------|-----|------|-------|-----------|-----|-----|-------|-----------|-----|-----|-------------|-----|------|
|                 |                          |               | PHF                | Northbound |      |     |       | Southbound |      |     |       | Eastbound |    |     |       | Westbound |     |     |             | PHF   | Northbound |     |      |       | Southbound |     |      |       | Eastbound |     |     |       | Westbound |     |     |             |     |      |
|                 |                          |               | whole intersection | L          | T    | R   | Total | L          | T    | R   | Total | L         | T  | R   | Total | L         | T   | R   |             | Total | L          | T   | R    | Total | L          | T   | R    | Total | L         | T   | R   | Total |           |     |     |             |     |      |
| Mathilda Avenue | Almanor / Ahwanee Avenue | November 2015 | 0.96               | 78         | 2384 | 24  | 2486  | 84         | 1341 | 417 | 1842  | 96        | 9  | 20  | 125   | 42        | 53  | 221 | 316         | 4769  | 0.94       | 31  | 1262 | 71    | 1364       | 155 | 2170 | 76    | 2401      | 317 | 94  | 50    | 461       | 31  | 10  | 94          | 135 | 4361 |
| Mathilda Avenue | California Avenue        | November 2015 | 0.96               | 139        | 2009 | 115 | 2263  | 34         | 872  | 234 | 1140  | 56        | 5  | 109 | 170   | 82        | 138 | 146 | 366         | 3939  | 0.89       | 87  | 857  | 263   | 1207       | 139 | 2732 | 338   | 3209      | 122 | 161 | 313   | 596       | 63  | 48  | 107         | 218 | 5230 |
| Mathilda Avenue | Indio Way                | November 2015 | 0.96               | 97         | 2050 | 103 | 2250  | 20         | 782  | 84  | 886   | 10        | 1  | 197 | 208   | 156       | 12  | 425 | 593         | 3937  | 0.92       | 27  | 1008 | 111   | 1146       | 52  | 2582 | 77    | 2711      | 46  | 0   | 407   | 453       | 77  | 0   | 85          | 162 | 4472 |
| Mathilda Avenue | Maude Avenue             | November 2015 | 0.91               | 421        | 2050 | 47  | 2518  | 142        | 644  | 337 | 1123  | 98        | 99 | 69  | 266   | 149       | 370 | 276 | 795         | 4702  | 0.90       | 102 | 898  | 124   | 1124       | 302 | 1808 | 196   | 2306      | 296 | 436 | 540   | 1272      | 117 | 165 | 113         | 395 | 5097 |
| Mathilda Avenue | Ross Drive               | November 2015 | 0.95               | 115        | 2152 | 79  | 2346  | 27         | 689  | 96  | 812   | 26        | 3  | 39  | 68    | 185       | 31  | 185 | 401         | 3627  | 0.98       | 59  | 980  | 323   | 1362       | 190 | 1695 | 54    | 1939      | 70  | 39  | 129   | 238       | 125 | 4   | 71          | 200 | 3739 |
| Mathilda Avenue | San Aleso Avenue         | November 2015 | 0.96               | 31         | 2374 | 56  | 2461  | 63         | 1227 | 44  | 1334  | 7         | 0  | 5   | 12    | 41        | 2   | 19  | 62          | 3869  | 0.93       | 22  | 1293 | 107   | 1422       | 111 | 2213 | 13    | 2337      | 42  | 7   | 23    | 72        | 42  | 2   | 51          | 95  | 3926 |
| Mathilda Avenue | SR-237 EB Ramps          | November 2015 | 0.96               | 0          | 1631 | 732 | 2363  | 45         | 740  | 0   | 785   | 845       | 0  | 72  | 917   | 0         | 0   | 0   | 0           | 4065  | 0.94       | 0   | 480  | 641   | 1121       | 347 | 1804 | 0     | 2151      | 130 | 0   | 135   | 265       | 0   | 0   | 0           | 0   | 3537 |
| Mathilda Avenue | SR-237 WB Ramps          | November 2015 | 0.93               | 134        | 2342 | 0   | 2476  | 0          | 254  | 99  | 353   | 0         | 0  | 0   | 0     | 531       | 36  | 273 | 840         | 3669  | 0.95       | 86  | 524  | 0     | 610        | 0   | 1610 | 558   | 2168      | 541 | 31  | 39    | 611       | 0   | 0   | 0           | 0   | 3389 |

| North/South     | East/West                 | Count Date    | AM   |     | PM   |     |
|-----------------|---------------------------|---------------|------|-----|------|-----|
|                 |                           |               | Bike | Ped | Bike | Ped |
| Mathilda Avenue | 237 EB Off/ On Ramps      | November 2015 | 9    | 0   | 5    | 6   |
| Mathilda Avenue | 237 WB Off/On Ramps       | November 2015 | 2    | 5   | 0    | 6   |
| Mathilda Avenue | Almanor Ave / Ahwanee Ave | November 2015 | 4    | 13  | 0    | 17  |
| Mathilda Avenue | California Ave            | November 2015 | 6    | 27  | 6    | 33  |
| Mathilda Avenue | Indio Wy                  | November 2015 | 8    | 35  | 3    | 17  |
| Mathilda Avenue | Maude Avenue              | November 2015 | 8    | 88  | 30   | 129 |
| Mathilda Avenue | Ross Dr                   | November 2015 | 5    | 16  | 3    | 3   |
| Mathilda Avenue | San Aleso Ave             | November 2015 | 2    | 14  | 1    | 19  |

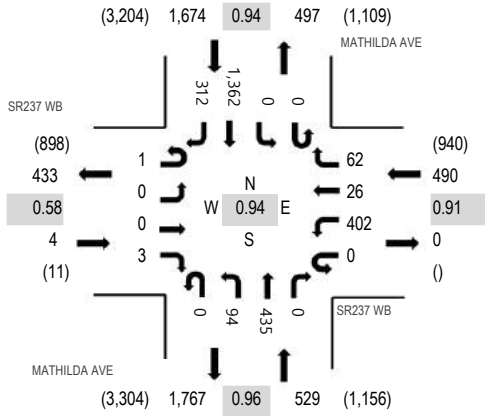




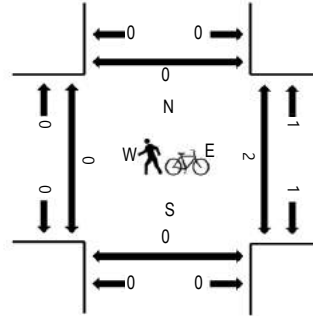
(303) 216-2439  
www.alltrafficdata.net

Location: 11 MATHILDA AVE & SR237 WB PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 03:00 PM - 04:00 PM  
Peak 15-Minutes: 03:30 PM - 03:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | SR237 WB Eastbound |      |      |       | SR237 WB Westbound |      |      |       | MATHILDA AVE Northbound |      |      |       | MATHILDA AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|--------------------|------|------|-------|--------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn             | Left | Thru | Right | U-Turn             | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 1                  | 0    | 0    | 2     | 0                  | 103  | 3    | 21    | 0                       | 25   | 138  | 0     | 0                       | 0    | 269  | 93    | 655   | 2,614        | 0                    | 0    | 0     | 0     |
| 2:15 PM             | 0                  | 0    | 0    | 3     | 0                  | 87   | 9    | 19    | 1                       | 20   | 140  | 0     | 0                       | 0    | 297  | 86    | 662   | 2,624        | 0                    | 0    | 0     | 0     |
| 2:30 PM             | 0                  | 0    | 0    | 1     | 0                  | 84   | 5    | 16    | 1                       | 22   | 141  | 0     | 0                       | 0    | 353  | 110   | 733   | 2,613        | 0                    | 0    | 0     | 0     |
| 2:45 PM             | 0                  | 0    | 0    | 0     | 0                  | 81   | 1    | 21    | 0                       | 23   | 116  | 0     | 0                       | 0    | 255  | 67    | 564   | 2,595        | 0                    | 0    | 0     | 0     |
| 3:00 PM             | 1                  | 0    | 0    | 2     | 0                  | 106  | 9    | 16    | 0                       | 28   | 96   | 0     | 0                       | 0    | 335  | 72    | 665   | 2,697        | 0                    | 0    | 0     | 0     |
| 3:15 PM             | 0                  | 0    | 0    | 0     | 0                  | 83   | 6    | 16    | 0                       | 18   | 106  | 0     | 0                       | 0    | 353  | 69    | 651   |              | 0                    | 2    | 0     | 0     |
| 3:30 PM             | 0                  | 0    | 0    | 0     | 0                  | 100  | 6    | 13    | 0                       | 32   | 121  | 0     | 0                       | 0    | 362  | 81    | 715   |              | 0                    | 0    | 0     | 0     |
| 3:45 PM             | 0                  | 0    | 0    | 1     | 0                  | 113  | 5    | 17    | 0                       | 16   | 112  | 0     | 0                       | 0    | 312  | 90    | 666   |              | 0                    | 0    | 0     | 0     |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |       |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru  | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 2    | 0    | 0     | 0          | 0    | 3    | 0     | 0          | 0    | 1     | 1     | 7     |
| Lights             | 1         | 0    | 0    | 3     | 0         | 393  | 25   | 60    | 0          | 92   | 412  | 0     | 0          | 0    | 1,344 | 307   | 2,637 |
| Mediums            | 0         | 0    | 0    | 0     | 0         | 7    | 1    | 2     | 0          | 2    | 20   | 0     | 0          | 0    | 17    | 4     | 53    |
| Total              | 1         | 0    | 0    | 3     | 0         | 402  | 26   | 62    | 0          | 94   | 435  | 0     | 0          | 0    | 1,362 | 312   | 2,697 |

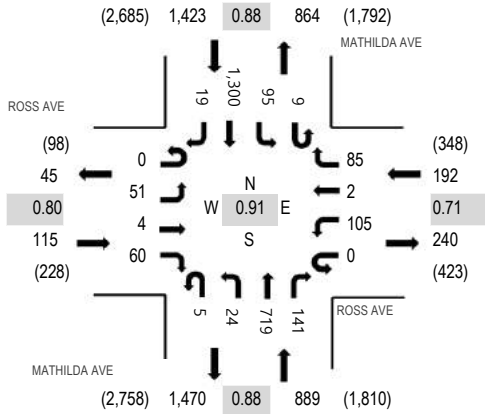




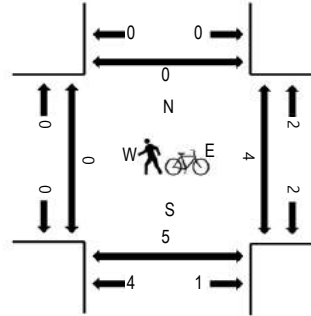
(303) 216-2439  
www.alltrafficdata.net

Location: 13 MATHILDA AVE & ROSS AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 03:00 PM - 04:00 PM  
Peak 15-Minutes: 03:30 PM - 03:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | ROSS AVE Eastbound |      |      |       | ROSS AVE Westbound |      |      |       | MATHILDA AVE Northbound |      |      |       | MATHILDA AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|--------------------|------|------|-------|--------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn             | Left | Thru | Right | U-Turn             | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                  | 12   | 2    | 16    | 0                  | 24   | 1    | 19    | 8                       | 8    | 215  | 32    | 15                      | 18   | 276  | 1     | 647   | 2,452        | 0                    | 0    | 0     | 0     |
| 2:15 PM             | 0                  | 14   | 2    | 10    | 0                  | 17   | 2    | 15    | 2                       | 13   | 185  | 22    | 9                       | 13   | 271  | 3     | 578   | 2,482        | 0                    | 2    | 2     | 0     |
| 2:30 PM             | 0                  | 15   | 1    | 16    | 0                  | 17   | 0    | 16    | 2                       | 9    | 193  | 21    | 14                      | 19   | 345  | 7     | 675   | 2,512        | 0                    | 0    | 0     | 0     |
| 2:45 PM             | 0                  | 16   | 0    | 9     | 0                  | 24   | 0    | 21    | 7                       | 5    | 164  | 35    | 5                       | 18   | 244  | 4     | 552   | 2,557        | 0                    | 0    | 0     | 0     |
| 3:00 PM             | 0                  | 14   | 0    | 10    | 0                  | 20   | 0    | 17    | 3                       | 9    | 188  | 40    | 2                       | 26   | 340  | 8     | 677   | 2,619        | 0                    | 0    | 0     | 0     |
| 3:15 PM             | 0                  | 5    | 2    | 17    | 0                  | 27   | 0    | 17    | 0                       | 6    | 174  | 38    | 5                       | 20   | 293  | 4     | 608   |              | 0                    | 2    | 0     | 0     |
| 3:30 PM             | 0                  | 15   | 0    | 16    | 0                  | 36   | 2    | 31    | 0                       | 6    | 184  | 27    | 2                       | 28   | 370  | 3     | 720   |              | 0                    | 1    | 3     | 0     |
| 3:45 PM             | 0                  | 17   | 2    | 17    | 0                  | 22   | 0    | 20    | 2                       | 3    | 173  | 36    | 0                       | 21   | 297  | 4     | 614   |              | 0                    | 1    | 2     | 0     |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |       |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru  | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 1    | 0     | 0          | 0    | 6     | 0     | 7     |
| Lights             | 0         | 50   | 4    | 59    | 0         | 105  | 2    | 81    | 5          | 22   | 691  | 141   | 9          | 95   | 1,274 | 18    | 2,556 |
| Mediums            | 0         | 1    | 0    | 1     | 0         | 0    | 0    | 4     | 0          | 2    | 27   | 0     | 0          | 0    | 20    | 1     | 56    |
| Total              | 0         | 51   | 4    | 60    | 0         | 105  | 2    | 85    | 5          | 24   | 719  | 141   | 9          | 95   | 1,300 | 19    | 2,619 |



(303) 216-2439  
www.alltrafficdata.net

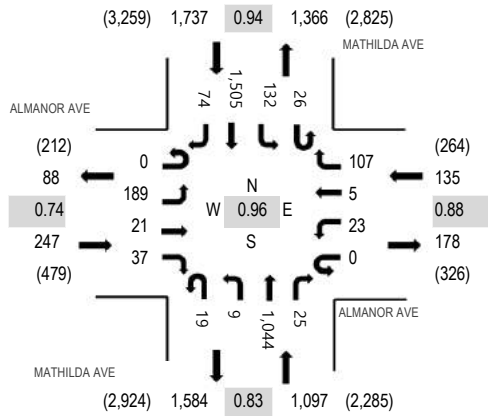
Location: 1 MATHILDA AVE & ALMANOR AVE PM

Date and Start Time: Tuesday, May 16, 2017

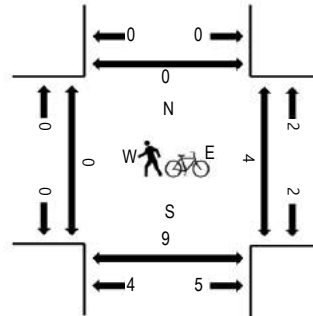
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | ALMANOR AVE Eastbound |      |      |       | ALMANOR AVE Westbound |      |      |       | MATHILDA AVE Northbound |      |      |       | MATHILDA AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                | Left | Thru | Right | U-Turn                | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                     | 54   | 6    | 12    | 0                     | 3    | 2    | 29    | 2                       | 8    | 334  | 6     | 9                       | 28   | 304  | 24    | 821   | 3,071        | 0                    | 0    | 0     | 0     |
| 2:15 PM             | 0                     | 45   | 1    | 8     | 0                     | 4    | 0    | 23    | 2                       | 2    | 237  | 6     | 12                      | 22   | 297  | 20    | 679   | 3,065        | 0                    | 1    | 2     | 0     |
| 2:30 PM             | 0                     | 52   | 6    | 6     | 0                     | 10   | 1    | 25    | 6                       | 7    | 341  | 3     | 8                       | 34   | 332  | 31    | 862   | 3,154        | 0                    | 0    | 2     | 0     |
| 2:45 PM             | 0                     | 33   | 5    | 4     | 0                     | 6    | 3    | 23    | 3                       | 4    | 224  | 3     | 10                      | 28   | 341  | 22    | 709   | 3,131        | 0                    | 0    | 7     | 0     |
| 3:00 PM             | 0                     | 36   | 8    | 6     | 0                     | 9    | 1    | 28    | 5                       | 4    | 290  | 5     | 8                       | 36   | 362  | 17    | 815   | 3,216        | 0                    | 0    | 1     | 0     |
| 3:15 PM             | 0                     | 34   | 4    | 10    | 0                     | 4    | 0    | 25    | 6                       | 2    | 256  | 5     | 6                       | 32   | 362  | 22    | 768   |              | 0                    | 1    | 5     | 0     |
| 3:30 PM             | 0                     | 67   | 4    | 12    | 0                     | 5    | 2    | 32    | 5                       | 1    | 240  | 10    | 7                       | 40   | 396  | 18    | 839   |              | 0                    | 1    | 2     | 0     |
| 3:45 PM             | 0                     | 52   | 5    | 9     | 0                     | 5    | 2    | 22    | 3                       | 2    | 258  | 5     | 5                       | 24   | 385  | 17    | 794   |              | 0                    | 1    | 1     | 0     |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |       |       | Southbound |      |       |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|-------|-------|------------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru  | Right | U-Turn     | Left | Thru  | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 1     | 0     | 0          | 0    | 3     | 0     | 4     |
| Lights             | 0         | 185  | 19   | 36    | 0         | 23   | 4    | 104   | 19         | 8    | 1,017 | 25    | 26         | 132  | 1,474 | 70    | 3,142 |
| Mediums            | 0         | 4    | 2    | 1     | 0         | 0    | 1    | 3     | 0          | 1    | 26    | 0     | 0          | 0    | 28    | 4     | 70    |
| Total              | 0         | 189  | 21   | 37    | 0         | 23   | 5    | 107   | 19         | 9    | 1,044 | 25    | 26         | 132  | 1,505 | 74    | 3,216 |



(303) 216-2439  
www.alltrafficdata.net

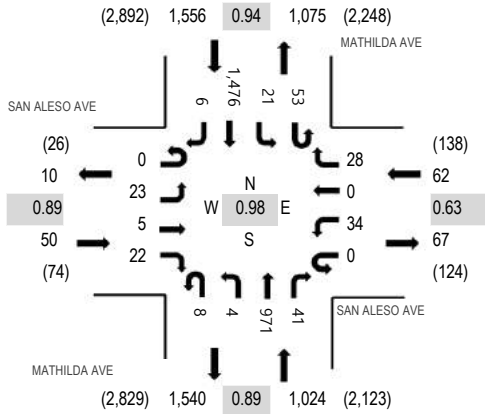
Location: 2 MATHILDA AVE & SAN ALESO AVE PM

Date and Start Time: Tuesday, May 16, 2017

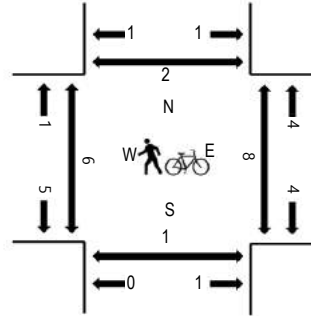
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | SAN ALESO AVE Eastbound |      |      |       | SAN ALESO AVE Westbound |      |      |       | MATHILDA AVE Northbound |      |      |       | MATHILDA AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                       | 6    | 0    | 3     | 0                       | 11   | 0    | 19    | 2                       | 1    | 296  | 6     | 21                      | 7    | 286  | 3     | 661   | 2,535        | 2                    | 2    | 2     | 0     |
| 2:15 PM             | 0                       | 5    | 0    | 1     | 0                       | 5    | 0    | 10    | 2                       | 0    | 235  | 6     | 12                      | 10   | 277  | 1     | 564   | 2,548        | 1                    | 4    | 0     | 1     |
| 2:30 PM             | 0                       | 3    | 0    | 2     | 0                       | 13   | 1    | 4     | 2                       | 0    | 298  | 9     | 9                       | 5    | 348  | 3     | 697   | 2,637        | 4                    | 2    | 0     | 5     |
| 2:45 PM             | 0                       | 0    | 0    | 4     | 0                       | 10   | 0    | 3     | 0                       | 1    | 233  | 8     | 19                      | 6    | 323  | 6     | 613   | 2,626        | 0                    | 0    | 0     | 0     |
| 3:00 PM             | 0                       | 4    | 1    | 6     | 0                       | 6    | 0    | 10    | 1                       | 1    | 261  | 12    | 12                      | 5    | 353  | 2     | 674   | 2,692        | 1                    | 0    | 0     | 1     |
| 3:15 PM             | 0                       | 4    | 3    | 6     | 0                       | 7    | 0    | 10    | 1                       | 1    | 239  | 7     | 12                      | 7    | 355  | 1     | 653   |              | 0                    | 1    | 0     | 0     |
| 3:30 PM             | 0                       | 8    | 1    | 5     | 0                       | 5    | 0    | 4     | 2                       | 0    | 237  | 12    | 10                      | 5    | 395  | 2     | 686   |              | 4                    | 3    | 1     | 1     |
| 3:45 PM             | 0                       | 7    | 0    | 5     | 0                       | 16   | 0    | 4     | 4                       | 2    | 234  | 10    | 19                      | 4    | 373  | 1     | 679   |              | 1                    | 3    | 0     | 0     |

**Peak Rolling Hour Flow Rates**

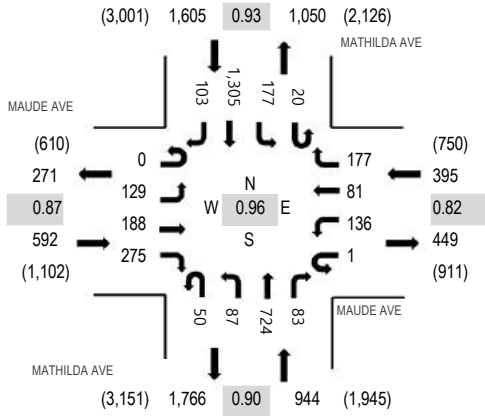
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |       |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru  | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 4     | 0     | 4     |
| Lights             | 0         | 22   | 4    | 22    | 0         | 34   | 0    | 26    | 8          | 4    | 949  | 41    | 53         | 19   | 1,452 | 6     | 2,640 |
| Mediums            | 0         | 1    | 1    | 0     | 0         | 0    | 0    | 2     | 0          | 0    | 22   | 0     | 0          | 2    | 20    | 0     | 48    |
| Total              | 0         | 23   | 5    | 22    | 0         | 34   | 0    | 28    | 8          | 4    | 971  | 41    | 53         | 21   | 1,476 | 6     | 2,692 |



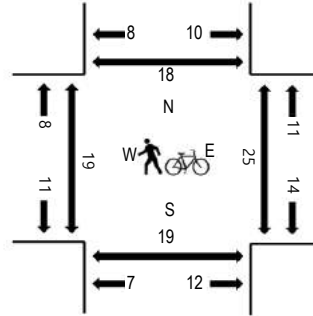
(303) 216-2439  
www.alltrafficdata.net

Location: 3 MATHILDA AVE & MAUDE AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 02:45 PM - 03:45 PM  
Peak 15-Minutes: 03:30 PM - 03:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | MATHILDA AVE Northbound |      |      |       | MATHILDA AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                   | 27   | 46   | 29    | 0                   | 24   | 42   | 40    | 9                       | 36   | 218  | 25    | 4                       | 53   | 232  | 29    | 814   | 3,278        | 5                    | 10   | 8     | 3     |
| 2:15 PM             | 0                   | 35   | 30   | 35    | 0                   | 29   | 27   | 34    | 9                       | 24   | 216  | 21    | 6                       | 52   | 240  | 28    | 786   | 3,355        | 2                    | 2    | 4     | 1     |
| 2:30 PM             | 0                   | 39   | 48   | 38    | 0                   | 18   | 25   | 46    | 9                       | 33   | 187  | 18    | 5                       | 47   | 267  | 32    | 812   | 3,423        | 2                    | 9    | 0     | 8     |
| 2:45 PM             | 0                   | 27   | 47   | 61    | 0                   | 42   | 29   | 55    | 10                      | 31   | 172  | 23    | 3                       | 48   | 298  | 20    | 866   | 3,536        | 1                    | 3    | 1     | 0     |
| 3:00 PM             | 0                   | 30   | 51   | 66    | 0                   | 36   | 21   | 48    | 14                      | 24   | 182  | 20    | 8                       | 19   | 344  | 28    | 891   | 3,520        | 8                    | 5    | 5     | 4     |
| 3:15 PM             | 0                   | 32   | 47   | 78    | 1                   | 28   | 20   | 34    | 14                      | 14   | 168  | 20    | 6                       | 60   | 307  | 25    | 854   |              | 5                    | 7    | 5     | 6     |
| 3:30 PM             | 0                   | 40   | 43   | 70    | 0                   | 30   | 11   | 40    | 12                      | 18   | 202  | 20    | 3                       | 50   | 356  | 30    | 925   |              | 5                    | 9    | 6     | 6     |
| 3:45 PM             | 0                   | 40   | 57   | 86    | 0                   | 19   | 21   | 30    | 16                      | 20   | 144  | 16    | 5                       | 49   | 325  | 22    | 850   |              | 3                    | 4    | 11    | 6     |

**Peak Rolling Hour Flow Rates**

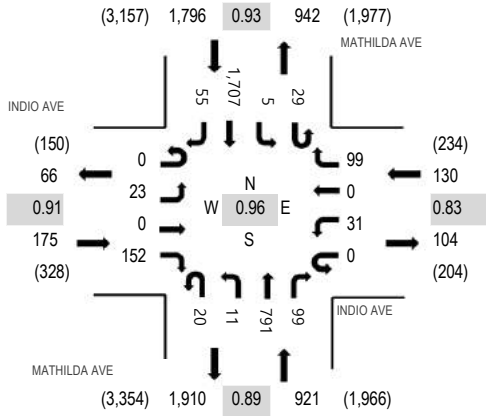
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |       |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru  | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 1    | 0     | 0          | 0    | 3     | 1     | 5     |
| Lights             | 0         | 124  | 185  | 271   | 1         | 135  | 80   | 174   | 49         | 77   | 705  | 83    | 20         | 174  | 1,275 | 96    | 3,449 |
| Mediums            | 0         | 5    | 3    | 4     | 0         | 1    | 1    | 3     | 1          | 10   | 18   | 0     | 0          | 3    | 27    | 6     | 82    |
| Total              | 0         | 129  | 188  | 275   | 1         | 136  | 81   | 177   | 50         | 87   | 724  | 83    | 20         | 177  | 1,305 | 103   | 3,536 |



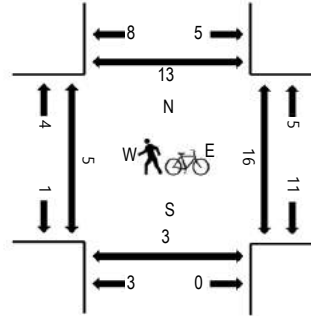
(303) 216-2439  
www.alltrafficdata.net

Location: 4 MATHILDA AVE & INDIO AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 03:00 PM - 04:00 PM  
Peak 15-Minutes: 03:30 PM - 03:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | INDIO AVE Eastbound |      |      |       | INDIO AVE Westbound |      |      |       | MATHILDA AVE Northbound |      |      |       | MATHILDA AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                   | 2    | 0    | 41    | 0                   | 12   | 0    | 19    | 7                       | 7    | 254  | 26    | 8                       | 1    | 269  | 12    | 658   | 2,663        | 3                    | 5    | 2     | 1     |
| 2:15 PM             | 0                   | 13   | 0    | 20    | 0                   | 2    | 0    | 19    | 9                       | 4    | 209  | 26    | 10                      | 0    | 297  | 21    | 630   | 2,716        | 1                    | 2    | 0     | 0     |
| 2:30 PM             | 0                   | 5    | 0    | 35    | 0                   | 8    | 0    | 18    | 6                       | 7    | 239  | 18    | 6                       | 1    | 348  | 14    | 705   | 2,826        | 1                    | 3    | 1     | 12    |
| 2:45 PM             | 0                   | 4    | 1    | 32    | 0                   | 7    | 2    | 17    | 2                       | 6    | 200  | 25    | 12                      | 2    | 349  | 11    | 670   | 2,907        | 2                    | 3    | 0     | 6     |
| 3:00 PM             | 0                   | 5    | 0    | 35    | 0                   | 9    | 0    | 30    | 6                       | 3    | 181  | 26    | 13                      | 0    | 391  | 12    | 711   | 3,022        | 0                    | 5    | 2     | 7     |
| 3:15 PM             | 0                   | 5    | 0    | 38    | 0                   | 4    | 0    | 26    | 5                       | 1    | 205  | 26    | 7                       | 0    | 407  | 16    | 740   |              | 1                    | 1    | 0     | 1     |
| 3:30 PM             | 0                   | 6    | 0    | 38    | 0                   | 8    | 0    | 25    | 4                       | 6    | 211  | 21    | 4                       | 2    | 446  | 15    | 786   |              | 2                    | 5    | 0     | 3     |
| 3:45 PM             | 0                   | 7    | 0    | 41    | 0                   | 10   | 0    | 18    | 5                       | 1    | 194  | 26    | 5                       | 3    | 463  | 12    | 785   |              | 2                    | 5    | 0     | 2     |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |       |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru  | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 1    | 0    | 0     | 0          | 0    | 2    | 0     | 0          | 0    | 3     | 0     | 6     |
| Lights             | 0         | 23   | 0    | 149   | 0         | 29   | 0    | 98    | 20         | 10   | 774  | 97    | 29         | 5    | 1,668 | 50    | 2,952 |
| Mediums            | 0         | 0    | 0    | 3     | 0         | 1    | 0    | 1     | 0          | 1    | 15   | 2     | 0          | 0    | 36    | 5     | 64    |
| Total              | 0         | 23   | 0    | 152   | 0         | 31   | 0    | 99    | 20         | 11   | 791  | 99    | 29         | 5    | 1,707 | 55    | 3,022 |





(303) 216-2439  
www.alltrafficdata.net

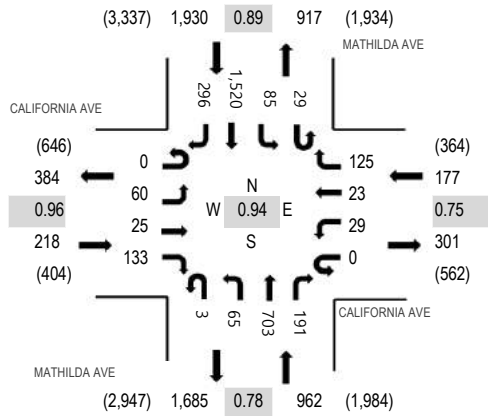
Location: 5 MATHILDA AVE & CALIFORNIA AVE PM

Date and Start Time: Tuesday, May 16, 2017

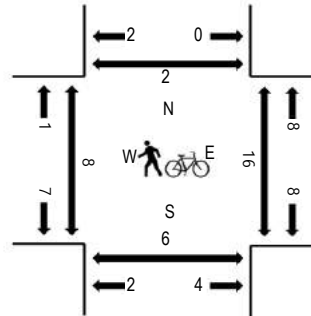
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | CALIFORNIA AVE Eastbound |      |      |       | CALIFORNIA AVE Westbound |      |      |       | MATHILDA AVE Northbound |      |      |       | MATHILDA AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                        | 8    | 5    | 19    | 0                        | 8    | 14   | 31    | 1                       | 8    | 275  | 43    | 2                       | 25   | 261  | 48    | 748   | 2,802        | 0                    | 0    | 4     | 0     |
| 2:15 PM             | 0                        | 16   | 13   | 27    | 0                        | 9    | 8    | 28    | 0                       | 5    | 181  | 34    | 5                       | 16   | 235  | 24    | 601   | 2,835        | 1                    | 2    | 2     | 2     |
| 2:30 PM             | 0                        | 18   | 7    | 22    | 0                        | 15   | 5    | 30    | 1                       | 12   | 200  | 34    | 7                       | 15   | 312  | 62    | 740   | 3,044        | 0                    | 1    | 2     | 1     |
| 2:45 PM             | 0                        | 16   | 5    | 30    | 0                        | 11   | 4    | 24    | 0                       | 14   | 172  | 42    | 4                       | 22   | 311  | 58    | 713   | 3,122        | 2                    | 4    | 1     | 2     |
| 3:00 PM             | 0                        | 13   | 5    | 34    | 0                        | 10   | 8    | 50    | 0                       | 20   | 158  | 56    | 9                       | 27   | 325  | 66    | 781   | 3,287        | 1                    | 4    | 1     | 1     |
| 3:15 PM             | 0                        | 15   | 12   | 30    | 0                        | 11   | 8    | 27    | 1                       | 13   | 173  | 47    | 4                       | 9    | 388  | 72    | 810   |              | 3                    | 4    | 2     | 0     |
| 3:30 PM             | 0                        | 21   | 4    | 31    | 0                        | 2    | 3    | 26    | 1                       | 18   | 186  | 41    | 10                      | 25   | 366  | 84    | 818   |              | 3                    | 2    | 2     | 0     |
| 3:45 PM             | 0                        | 11   | 4    | 38    | 0                        | 6    | 4    | 22    | 1                       | 14   | 186  | 47    | 6                       | 24   | 441  | 74    | 878   |              | 1                    | 4    | 1     | 1     |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |       |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru  | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 2     | 2     | 4     |
| Lights             | 0         | 60   | 24   | 121   | 0         | 29   | 23   | 121   | 3          | 56   | 682  | 187   | 28         | 82   | 1,502 | 289   | 3,207 |
| Mediums            | 0         | 0    | 1    | 12    | 0         | 0    | 0    | 4     | 0          | 9    | 21   | 4     | 1          | 3    | 16    | 5     | 76    |
| Total              | 0         | 60   | 25   | 133   | 0         | 29   | 23   | 125   | 3          | 65   | 703  | 191   | 29         | 85   | 1,520 | 296   | 3,287 |



(303) 216-2439  
www.alltrafficdata.net

Location: 6 SAN ALESO AVE & AHWANEE AVE AM

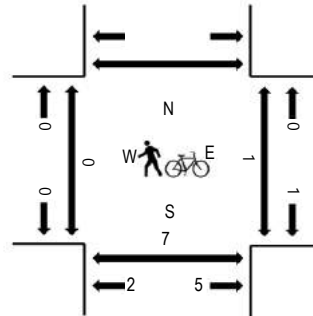
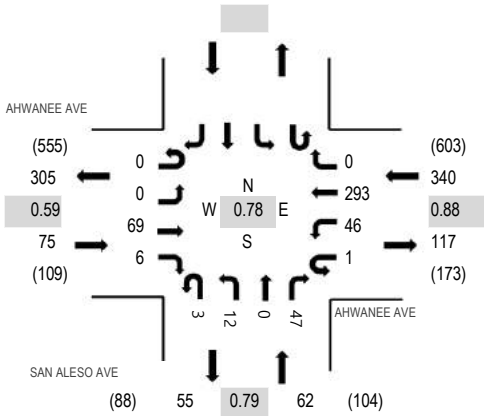
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | AHWANEE AVE Eastbound |      |      |       | AHWANEE AVE Westbound |      |      |       | SAN ALESO AVE Northbound |      |      |       | SAN ALESO AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                | Left | Thru | Right | U-Turn                | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |              | West                 | East | South | North |
| 7:00 AM             | 0                     | 0    | 7    | 5     | 0                     | 3    | 49   | 0     | 0                        | 0    | 2    | 0     | 10                       | 0    | 0    | 0     | 0     | 76           | 449                  | 0    | 0     | 4     |
| 7:15 AM             | 0                     | 0    | 8    | 1     | 0                     | 9    | 53   | 0     | 0                        | 0    | 5    | 0     | 14                       | 0    | 0    | 0     | 0     | 90           | 466                  | 0    | 0     | 0     |
| 7:30 AM             | 0                     | 0    | 20   | 2     | 0                     | 12   | 78   | 0     | 1                        | 2    | 0    | 0     | 16                       | 0    | 0    | 0     | 0     | 131          | 477                  | 0    | 0     | 3     |
| 7:45 AM             | 0                     | 0    | 31   | 1     | 1                     | 16   | 80   | 0     | 1                        | 3    | 0    | 0     | 19                       | 0    | 0    | 0     | 0     | 152          | 435                  | 0    | 0     | 2     |
| 8:00 AM             | 0                     | 0    | 7    | 3     | 0                     | 12   | 60   | 0     | 1                        | 2    | 0    | 0     | 8                        | 0    | 0    | 0     | 0     | 93           | 367                  | 0    | 1     | 2     |
| 8:15 AM             | 0                     | 0    | 11   | 0     | 0                     | 6    | 75   | 0     | 0                        | 5    | 0    | 0     | 4                        | 0    | 0    | 0     | 0     | 101          |                      | 0    | 0     | 0     |
| 8:30 AM             | 0                     | 0    | 6    | 1     | 0                     | 6    | 73   | 0     | 0                        | 2    | 0    | 0     | 1                        | 0    | 0    | 0     | 0     | 89           |                      | 0    | 0     | 5     |
| 8:45 AM             | 0                     | 0    | 5    | 1     | 0                     | 7    | 63   | 0     | 0                        | 3    | 0    | 0     | 5                        | 0    | 0    | 0     | 0     | 84           |                      | 0    | 0     | 0     |

Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 0    | 68   | 5     | 1         | 46   | 292  | 0     | 3          | 12   | 0    | 47    | 0          | 0    | 0    | 0     | 474   |
| Mediums            | 0         | 0    | 1    | 1     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 3     |
| Total              | 0         | 0    | 69   | 6     | 1         | 46   | 293  | 0     | 3          | 12   | 0    | 47    | 0          | 0    | 0    | 0     | 477   |



(303) 216-2439  
www.alltrafficdata.net

Location: 6 SAN ALESO AVE & AHWANEE AVE PM

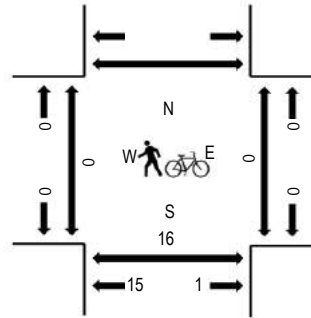
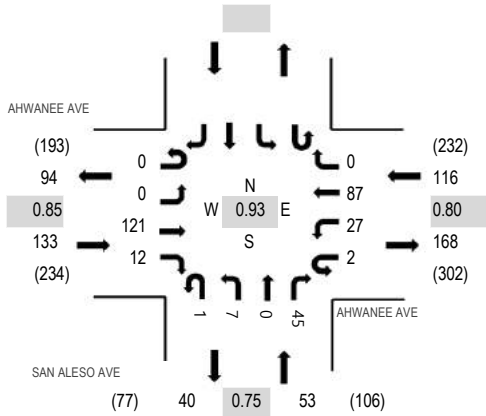
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 02:45 PM - 03:45 PM

Peak 15-Minutes: 02:45 PM - 03:00 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | AHWANEE AVE Eastbound |      |      |       | AHWANEE AVE Westbound |      |      |       | SAN ALESO AVE Northbound |      |      |       | SAN ALESO AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                | Left | Thru | Right | U-Turn                | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                     | 0    | 18   | 3     | 1                     | 5    | 26   | 0     | 0                        | 0    | 2    | 0     | 10                       | 0    | 0    | 0     | 0     | 65           | 284                  | 0    | 0     | 1     |
| 2:15 PM             | 0                     | 0    | 20   | 0     | 0                     | 13   | 25   | 0     | 1                        | 1    | 0    | 0     | 12                       | 0    | 0    | 0     | 0     | 72           | 296                  | 0    | 0     | 2     |
| 2:30 PM             | 0                     | 0    | 26   | 4     | 0                     | 6    | 17   | 0     | 0                        | 0    | 4    | 0     | 9                        | 0    | 0    | 0     | 0     | 66           | 287                  | 0    | 0     | 2     |
| 2:45 PM             | 0                     | 0    | 37   | 2     | 1                     | 7    | 21   | 0     | 0                        | 0    | 2    | 0     | 11                       | 0    | 0    | 0     | 0     | 81           | 302                  | 0    | 0     | 2     |
| 3:00 PM             | 0                     | 0    | 24   | 3     | 0                     | 6    | 24   | 0     | 1                        | 1    | 0    | 0     | 18                       | 0    | 0    | 0     | 0     | 77           | 288                  | 0    | 0     | 7     |
| 3:15 PM             | 0                     | 0    | 28   | 3     | 0                     | 6    | 21   | 0     | 0                        | 0    | 0    | 0     | 5                        | 0    | 0    | 0     | 0     | 63           |                      | 0    | 0     | 6     |
| 3:30 PM             | 0                     | 0    | 32   | 4     | 1                     | 8    | 21   | 0     | 0                        | 0    | 4    | 0     | 11                       | 0    | 0    | 0     | 0     | 81           |                      | 0    | 0     | 1     |
| 3:45 PM             | 0                     | 0    | 26   | 4     | 0                     | 1    | 22   | 0     | 0                        | 0    | 2    | 0     | 12                       | 0    | 0    | 0     | 0     | 67           |                      | 0    | 0     | 0     |

Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 0    | 121  | 11    | 2         | 27   | 84   | 0     | 1          | 7    | 0    | 45    | 0          | 0    | 0    | 0     | 298   |
| Mediums            | 0         | 0    | 0    | 1     | 0         | 0    | 3    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 4     |
| Total              | 0         | 0    | 121  | 12    | 2         | 27   | 87   | 0     | 1          | 7    | 0    | 45    | 0          | 0    | 0    | 0     | 302   |



(303) 216-2439  
www.alltrafficdata.net

Location: 6 SAN ALESO AVE & AHWANEE AVE PM

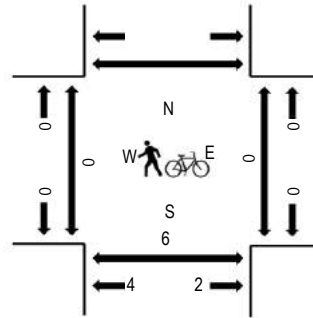
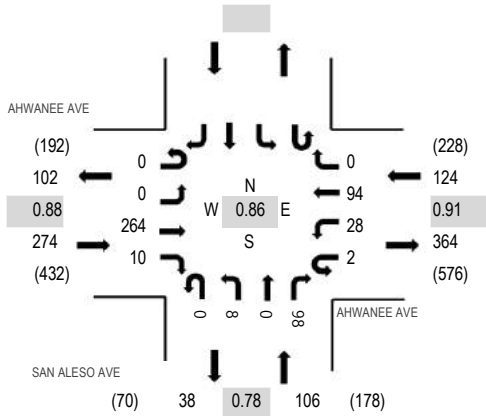
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | AHWANEE AVE Eastbound |      |      |       | AHWANEE AVE Westbound |      |      |       | SAN ALESO AVE Northbound |      |      |       | SAN ALESO AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                | Left | Thru | Right | U-Turn                | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |              | West                 | East | South | North |
| 4:00 PM             | 0                     | 0    | 30   | 4     | 0                     | 3    | 23   | 0     | 0                        | 1    | 0    | 11    | 0                        | 0    | 0    | 0     | 72    | 334          | 0                    | 0    | 1     |       |
| 4:15 PM             | 0                     | 0    | 32   | 4     | 0                     | 5    | 20   | 0     | 0                        | 2    | 0    | 16    | 0                        | 0    | 0    | 0     | 79    | 357          | 0                    | 0    | 1     |       |
| 4:30 PM             | 0                     | 0    | 46   | 1     | 1                     | 5    | 20   | 0     | 0                        | 2    | 0    | 15    | 0                        | 0    | 0    | 0     | 90    | 412          | 0                    | 0    | 1     |       |
| 4:45 PM             | 0                     | 0    | 40   | 1     | 0                     | 9    | 18   | 0     | 0                        | 4    | 0    | 21    | 0                        | 0    | 0    | 0     | 93    | 468          | 0                    | 0    | 3     |       |
| 5:00 PM             | 0                     | 0    | 44   | 2     | 0                     | 5    | 24   | 0     | 0                        | 0    | 0    | 20    | 0                        | 0    | 0    | 0     | 95    | 504          | 0                    | 0    | 2     |       |
| 5:15 PM             | 0                     | 0    | 73   | 3     | 1                     | 6    | 24   | 0     | 0                        | 2    | 0    | 25    | 0                        | 0    | 0    | 0     | 134   |              | 0                    | 0    | 1     |       |
| 5:30 PM             | 0                     | 0    | 75   | 3     | 1                     | 9    | 24   | 0     | 0                        | 4    | 0    | 30    | 0                        | 0    | 0    | 0     | 146   |              | 0                    | 0    | 2     |       |
| 5:45 PM             | 0                     | 0    | 72   | 2     | 0                     | 8    | 22   | 0     | 0                        | 2    | 0    | 23    | 0                        | 0    | 0    | 0     | 129   |              | 0                    | 0    | 1     |       |

Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 0    | 262  | 10    | 2         | 28   | 93   | 0     | 0          | 8    | 0    | 96    | 0          | 0    | 0    | 0     | 499   |
| Mediums            | 0         | 0    | 2    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 2     | 0          | 0    | 0    | 0     | 5     |
| Total              | 0         | 0    | 264  | 10    | 2         | 28   | 94   | 0     | 0          | 8    | 0    | 98    | 0          | 0    | 0    | 0     | 504   |



(303) 216-2439  
www.alltrafficdata.net

Location: 7 BORREGAS AVE & AHWANEE AVE AM

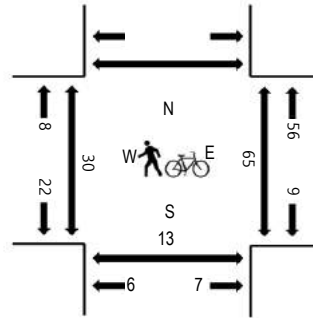
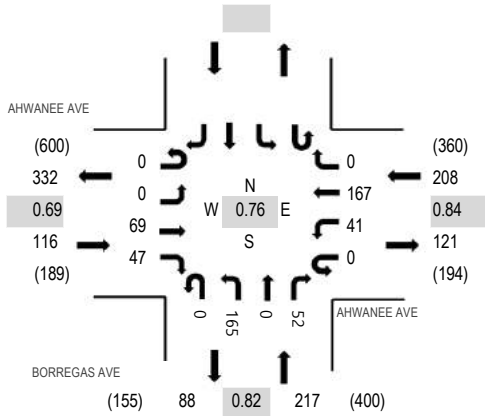
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | AHWANEE AVE Eastbound |      |      |       | AHWANEE AVE Westbound |      |      |       | BORREGAS AVE Northbound |      |      |       | BORREGAS AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                | Left | Thru | Right | U-Turn                | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 7:00 AM             | 0                     | 0    | 8    | 13    | 0                     | 9    | 21   | 0     | 0                       | 0    | 33   | 0     | 12                      | 0    | 0    | 0     | 0     | 96           | 533                  | 2    | 5     | 0     |
| 7:15 AM             | 0                     | 0    | 15   | 13    | 0                     | 11   | 25   | 0     | 0                       | 0    | 39   | 0     | 9                       | 0    | 0    | 0     | 0     | 112          | 538                  | 1    | 6     | 4     |
| 7:30 AM             | 0                     | 0    | 28   | 20    | 0                     | 8    | 54   | 0     | 0                       | 0    | 50   | 0     | 17                      | 0    | 0    | 0     | 0     | 177          | 541                  | 6    | 7     | 10    |
| 7:45 AM             | 0                     | 0    | 20   | 16    | 0                     | 12   | 41   | 0     | 0                       | 0    | 46   | 0     | 13                      | 0    | 0    | 0     | 0     | 148          | 464                  | 5    | 5     | 1     |
| 8:00 AM             | 0                     | 0    | 10   | 7     | 0                     | 10   | 31   | 0     | 0                       | 0    | 33   | 0     | 10                      | 0    | 0    | 0     | 0     | 101          | 416                  | 3    | 3     | 0     |
| 8:15 AM             | 0                     | 0    | 11   | 4     | 0                     | 11   | 41   | 0     | 0                       | 0    | 36   | 0     | 12                      | 0    | 0    | 0     | 0     | 115          |                      | 3    | 3     | 2     |
| 8:30 AM             | 0                     | 0    | 3    | 5     | 0                     | 3    | 42   | 0     | 0                       | 0    | 32   | 0     | 15                      | 0    | 0    | 0     | 0     | 100          |                      | 1    | 1     | 1     |
| 8:45 AM             | 0                     | 0    | 9    | 7     | 0                     | 6    | 35   | 0     | 0                       | 0    | 41   | 0     | 2                       | 0    | 0    | 0     | 0     | 100          |                      | 1    | 3     | 4     |

Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |     |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|-----|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |     |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |     |
| Lights             | 0         | 0    | 68   | 47    | 0         | 41   | 166  | 0     | 0          | 0    | 165  | 0     | 48         | 0    | 0    | 0     | 0     | 535 |
| Mediums            | 0         | 0    | 1    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 4          | 0    | 0    | 0     | 0     | 6   |
| Total              | 0         | 0    | 69   | 47    | 0         | 41   | 167  | 0     | 0          | 0    | 165  | 0     | 52         | 0    | 0    | 0     | 0     | 541 |



(303) 216-2439  
www.alltrafficdata.net

Location: 7 BORREGAS AVE & AHWANEE AVE PM

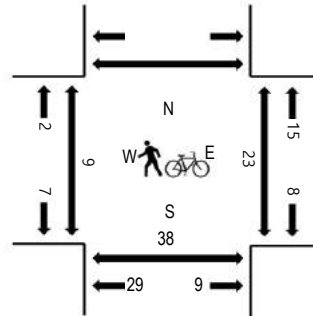
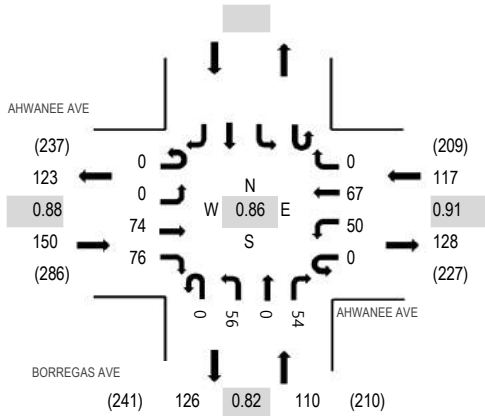
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 02:45 PM - 03:45 PM

Peak 15-Minutes: 02:45 PM - 03:00 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | AHWANEE AVE Eastbound |      |      |       | AHWANEE AVE Westbound |      |      |       | BORREGAS AVE Northbound |      |      |       | Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|-------------------------|------|------|-------|------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                | Left | Thru | Right | U-Turn                | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                     | 0    | 8    | 15    | 0                     | 10   | 12   | 0     | 0                       | 0    | 21   | 0     | 10         | 0    | 0    | 0     | 0     | 76           | 357                  | 0    | 0     | 4     |
| 2:15 PM             | 0                     | 0    | 14   | 18    | 0                     | 9    | 18   | 0     | 0                       | 0    | 16   | 0     | 11         | 0    | 0    | 0     | 0     | 86           | 375                  | 0    | 2     | 2     |
| 2:30 PM             | 0                     | 0    | 21   | 24    | 0                     | 11   | 10   | 0     | 0                       | 0    | 11   | 0     | 9          | 0    | 0    | 0     | 0     | 86           | 374                  | 2    | 1     | 4     |
| 2:45 PM             | 0                     | 0    | 19   | 25    | 0                     | 15   | 16   | 0     | 0                       | 0    | 17   | 0     | 17         | 0    | 0    | 0     | 0     | 109          | 377                  | 0    | 6     | 16    |
| 3:00 PM             | 0                     | 0    | 15   | 22    | 0                     | 15   | 15   | 0     | 0                       | 0    | 15   | 0     | 12         | 0    | 0    | 0     | 0     | 94           | 348                  | 0    | 2     | 11    |
| 3:15 PM             | 0                     | 0    | 19   | 9     | 0                     | 12   | 20   | 0     | 0                       | 0    | 12   | 0     | 13         | 0    | 0    | 0     | 0     | 85           |                      | 2    | 9     | 7     |
| 3:30 PM             | 0                     | 0    | 21   | 20    | 0                     | 8    | 16   | 0     | 0                       | 0    | 12   | 0     | 12         | 0    | 0    | 0     | 0     | 89           |                      | 1    | 1     | 2     |
| 3:45 PM             | 0                     | 0    | 17   | 19    | 0                     | 9    | 13   | 0     | 0                       | 0    | 13   | 0     | 9          | 0    | 0    | 0     | 0     | 80           |                      | 1    | 2     | 1     |

Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |     |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|-----|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |     |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |     |
| Lights             | 0         | 0    | 74   | 76    | 0         | 50   | 66   | 0     | 0          | 0    | 55   | 0     | 50         | 0    | 0    | 0     | 0     | 371 |
| Mediums            | 0         | 0    | 0    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 1    | 0     | 4          | 0    | 0    | 0     | 0     | 6   |
| Total              | 0         | 0    | 74   | 76    | 0         | 50   | 67   | 0     | 0          | 0    | 56   | 0     | 54         | 0    | 0    | 0     | 0     | 377 |



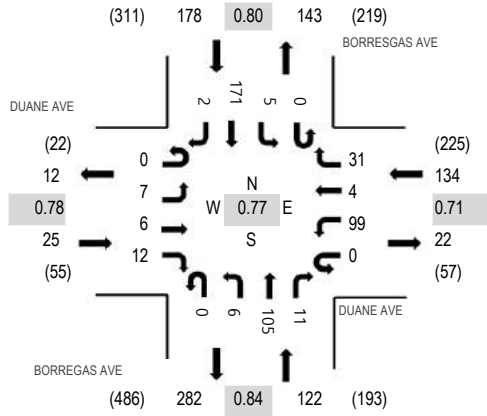




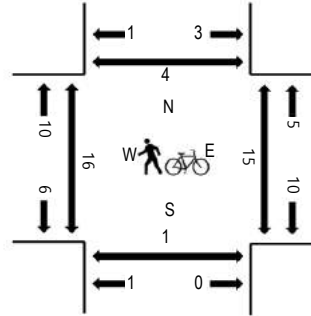
(303) 216-2439  
www.alltrafficdata.net

Location: 8 BORREGAS AVE & DUANE AVE AM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 07:15 AM - 08:15 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | DUANE AVE Eastbound |      |      |       | DUANE AVE Westbound |      |      |       | BORREGAS AVE Northbound |      |      |       | BORREGAS AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 7:00 AM             | 0                   | 1    | 2    | 1     | 0                   | 15   | 0    | 0     | 0                       | 1    | 12   | 2     | 0                       | 1    | 45   | 0     | 80    | 438          | 1                    | 2    | 0     | 0     |
| 7:15 AM             | 0                   | 2    | 1    | 5     | 0                   | 17   | 0    | 4     | 0                       | 0    | 12   | 2     | 0                       | 1    | 36   | 0     | 80    | 459          | 3                    | 6    | 0     | 0     |
| 7:30 AM             | 0                   | 3    | 4    | 0     | 0                   | 28   | 1    | 10    | 0                       | 3    | 26   | 4     | 0                       | 1    | 48   | 0     | 128   | 452          | 6                    | 2    | 0     | 3     |
| 7:45 AM             | 0                   | 0    | 0    | 5     | 0                   | 33   | 2    | 12    | 0                       | 1    | 35   | 2     | 0                       | 2    | 57   | 1     | 150   | 403          | 5                    | 5    | 0     | 0     |
| 8:00 AM             | 0                   | 2    | 1    | 2     | 0                   | 21   | 1    | 5     | 0                       | 2    | 32   | 3     | 0                       | 1    | 30   | 1     | 101   | 346          | 2                    | 2    | 1     | 1     |
| 8:15 AM             | 0                   | 2    | 2    | 4     | 0                   | 12   | 1    | 7     | 0                       | 2    | 14   | 3     | 0                       | 3    | 22   | 1     | 73    |              | 4                    | 6    | 1     | 0     |
| 8:30 AM             | 0                   | 1    | 4    | 3     | 0                   | 21   | 0    | 3     | 0                       | 0    | 7    | 6     | 0                       | 6    | 28   | 0     | 79    |              | 2                    | 2    | 0     | 0     |
| 8:45 AM             | 0                   | 3    | 2    | 5     | 0                   | 23   | 2    | 7     | 0                       | 2    | 19   | 3     | 0                       | 1    | 25   | 1     | 93    |              | 1                    | 1    | 0     | 1     |

**Peak Rolling Hour Flow Rates**

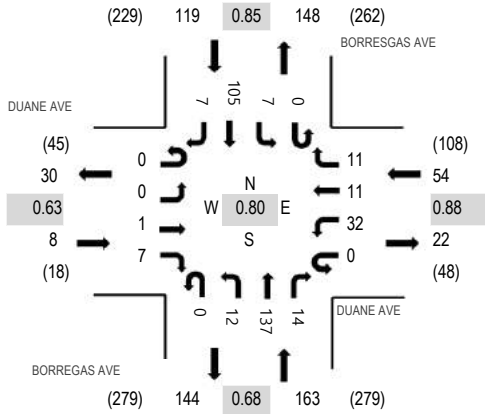
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 7    | 6    | 12    | 0         | 99   | 4    | 31    | 0          | 6    | 104  | 11    | 0          | 5    | 170  | 2     | 457   |
| Mediums            | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 1    | 0     | 0          | 0    | 1    | 0     | 2     |
| Total              | 0         | 7    | 6    | 12    | 0         | 99   | 4    | 31    | 0          | 6    | 105  | 11    | 0          | 5    | 171  | 2     | 459   |



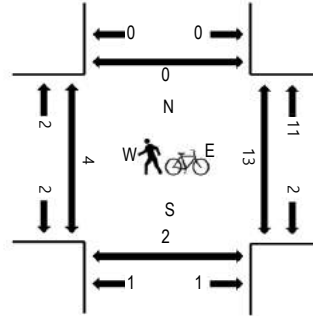
(303) 216-2439  
www.alltrafficdata.net

Location: 8 BORREGAS AVE & DUANE AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 02:00 PM - 03:00 PM  
Peak 15-Minutes: 02:15 PM - 02:30 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | DUANE AVE Eastbound |      |      |       | DUANE AVE Westbound |      |      |       | BORREGAS AVE Northbound |      |      |       | BORREGAS AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                   | 0    | 1    | 2     | 0                   | 4    | 4    | 2     | 0                       | 5    | 29   | 2     | 0                       | 3    | 24   | 2     | 78    | 344          | 1                    | 2    | 1     | 0     |
| 2:15 PM             | 0                   | 0    | 0    | 2     | 0                   | 6    | 3    | 3     | 0                       | 4    | 54   | 2     | 0                       | 0    | 32   | 1     | 107   | 343          | 2                    | 3    | 1     | 0     |
| 2:30 PM             | 0                   | 0    | 0    | 2     | 0                   | 8    | 4    | 4     | 0                       | 2    | 22   | 7     | 0                       | 1    | 19   | 1     | 70    | 311          | 0                    | 4    | 0     | 0     |
| 2:45 PM             | 0                   | 0    | 0    | 1     | 0                   | 14   | 0    | 2     | 0                       | 1    | 32   | 3     | 0                       | 3    | 30   | 3     | 89    | 312          | 1                    | 3    | 0     | 0     |
| 3:00 PM             | 0                   | 0    | 1    | 0     | 0                   | 5    | 1    | 7     | 0                       | 2    | 25   | 4     | 0                       | 1    | 31   | 0     | 77    | 290          | 5                    | 3    | 0     | 1     |
| 3:15 PM             | 0                   | 0    | 0    | 2     | 0                   | 14   | 0    | 4     | 0                       | 3    | 24   | 7     | 0                       | 2    | 19   | 0     | 75    |              | 3                    | 4    | 0     | 1     |
| 3:30 PM             | 0                   | 0    | 1    | 3     | 0                   | 5    | 1    | 2     | 0                       | 2    | 22   | 2     | 0                       | 5    | 28   | 0     | 71    |              | 4                    | 7    | 0     | 0     |
| 3:45 PM             | 0                   | 0    | 1    | 2     | 0                   | 5    | 3    | 7     | 0                       | 2    | 23   | 0     | 0                       | 2    | 21   | 1     | 67    |              | 2                    | 4    | 1     | 0     |

**Peak Rolling Hour Flow Rates**

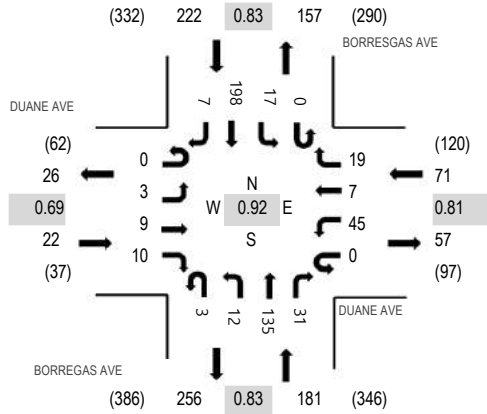
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 0    | 1    | 7     | 0         | 31   | 11   | 11    | 0          | 12   | 136  | 14    | 0          | 7    | 103  | 6     | 339   |
| Mediums            | 0         | 0    | 0    | 0     | 0         | 1    | 0    | 0     | 0          | 0    | 1    | 0     | 0          | 0    | 2    | 1     | 5     |
| Total              | 0         | 0    | 1    | 7     | 0         | 32   | 11   | 11    | 0          | 12   | 137  | 14    | 0          | 7    | 105  | 7     | 344   |



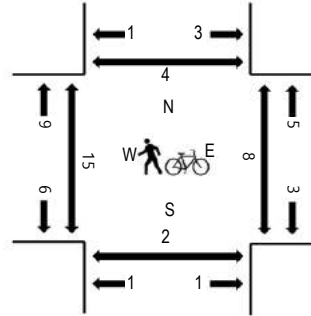
(303) 216-2439  
www.alltrafficdata.net

Location: 8 BORREGAS AVE & DUANE AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 05:00 PM - 06:00 PM  
Peak 15-Minutes: 05:30 PM - 05:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | DUANE AVE Eastbound |      |      |       | DUANE AVE Westbound |      |      |       | BORREGAS AVE Northbound |      |      |       | BORREGAS AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |              | West                 | East | South | North |
| 4:00 PM             | 0                   | 0    | 1    | 1     | 0                   | 10   | 2    | 1     | 0                       | 2    | 28   | 7     | 0                       | 0    | 19   | 0     | 71    | 339          | 1                    | 6    | 0     | 0     |
| 4:15 PM             | 0                   | 1    | 1    | 0     | 0                   | 8    | 3    | 5     | 1                       | 4    | 25   | 7     | 0                       | 3    | 24   | 1     | 83    | 371          | 4                    | 1    | 0     | 0     |
| 4:30 PM             | 0                   | 3    | 2    | 1     | 0                   | 3    | 3    | 3     | 1                       | 7    | 28   | 7     | 0                       | 2    | 25   | 2     | 87    | 412          | 2                    | 6    | 0     | 0     |
| 4:45 PM             | 0                   | 0    | 1    | 4     | 0                   | 4    | 4    | 3     | 0                       | 6    | 36   | 6     | 0                       | 3    | 29   | 2     | 98    | 460          | 3                    | 4    | 0     | 0     |
| 5:00 PM             | 0                   | 1    | 2    | 2     | 0                   | 11   | 2    | 5     | 0                       | 0    | 32   | 7     | 0                       | 4    | 33   | 4     | 103   | 496          | 5                    | 2    | 1     | 0     |
| 5:15 PM             | 0                   | 2    | 0    | 3     | 0                   | 12   | 1    | 3     | 3                       | 4    | 29   | 11    | 0                       | 4    | 51   | 1     | 124   |              | 3                    | 1    | 0     | 4     |
| 5:30 PM             | 0                   | 0    | 1    | 3     | 0                   | 9    | 2    | 4     | 0                       | 4    | 45   | 9     | 0                       | 4    | 53   | 1     | 135   |              | 3                    | 3    | 0     | 0     |
| 5:45 PM             | 0                   | 0    | 6    | 2     | 0                   | 13   | 2    | 7     | 0                       | 4    | 29   | 4     | 0                       | 5    | 61   | 1     | 134   |              | 4                    | 2    | 1     | 0     |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 3    | 8    | 9     | 0         | 45   | 7    | 19    | 3          | 12   | 134  | 31    | 0          | 17   | 197  | 6     | 491   |
| Mediums            | 0         | 0    | 1    | 1     | 0         | 0    | 0    | 0     | 0          | 0    | 1    | 0     | 0          | 0    | 1    | 1     | 5     |
| Total              | 0         | 3    | 9    | 10    | 0         | 45   | 7    | 19    | 3          | 12   | 135  | 31    | 0          | 17   | 198  | 7     | 496   |

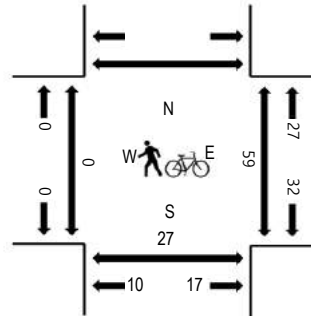
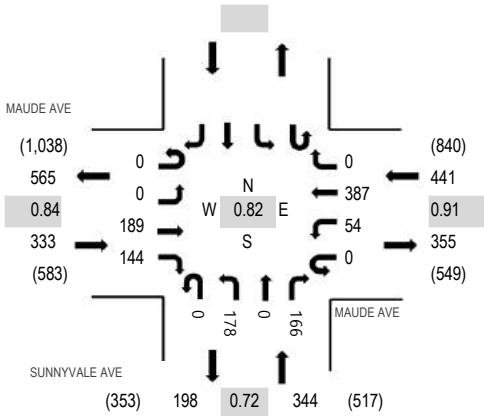


(303) 216-2439  
www.alltrafficdata.net

Location: 9 SUNNYVALE AVE & MAUDE AVE AM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | SUNNYVALE AVE Northbound |      |      |       | SUNNYVALE AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |              | West                 | East | South | North |
| 7:00 AM             | 0                   | 0    | 26   | 30    | 0                   | 14   | 59   | 0     | 0                        | 0    | 24   | 0     | 5                        | 0    | 0    | 0     | 0     | 158          | 929                  | 0    | 3     | 1     |
| 7:15 AM             | 0                   | 0    | 40   | 26    | 0                   | 9    | 65   | 0     | 0                        | 0    | 28   | 0     | 15                       | 0    | 0    | 0     | 0     | 183          | 1,063                | 0    | 0     | 2     |
| 7:30 AM             | 0                   | 0    | 60   | 29    | 0                   | 16   | 63   | 0     | 0                        | 0    | 44   | 0     | 35                       | 0    | 0    | 0     | 0     | 247          | 1,118                | 0    | 7     | 3     |
| 7:45 AM             | 0                   | 0    | 37   | 62    | 0                   | 15   | 107  | 0     | 0                        | 0    | 50   | 0     | 70                       | 0    | 0    | 0     | 0     | 341          | 1,107                | 0    | 36    | 18    |
| 8:00 AM             | 0                   | 0    | 43   | 26    | 0                   | 14   | 116  | 0     | 0                        | 0    | 60   | 0     | 33                       | 0    | 0    | 0     | 0     | 292          | 1,011                | 0    | 14    | 5     |
| 8:15 AM             | 0                   | 0    | 49   | 27    | 0                   | 9    | 101  | 0     | 0                        | 0    | 24   | 0     | 28                       | 0    | 0    | 0     | 0     | 238          |                      | 0    | 1     | 0     |
| 8:30 AM             | 0                   | 0    | 44   | 27    | 0                   | 16   | 101  | 0     | 0                        | 0    | 33   | 0     | 15                       | 0    | 0    | 0     | 0     | 236          |                      | 0    | 1     | 3     |
| 8:45 AM             | 0                   | 0    | 35   | 22    | 0                   | 11   | 124  | 0     | 0                        | 0    | 39   | 0     | 14                       | 0    | 0    | 0     | 0     | 245          |                      | 0    | 0     | 0     |

Peak Rolling Hour Flow Rates

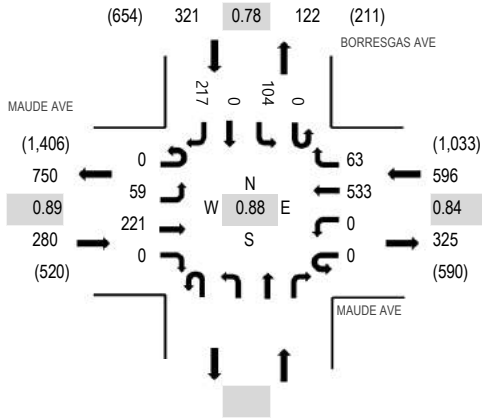
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |       |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |       |
| Lights             | 0         | 0    | 183  | 143   | 0         | 51   | 380  | 0     | 0          | 0    | 178  | 0     | 163        | 0    | 0    | 0     | 0     | 1,098 |
| Mediums            | 0         | 0    | 6    | 1     | 0         | 3    | 7    | 0     | 0          | 0    | 0    | 0     | 3          | 0    | 0    | 0     | 0     | 20    |
| Total              | 0         | 0    | 189  | 144   | 0         | 54   | 387  | 0     | 0          | 0    | 178  | 0     | 166        | 0    | 0    | 0     | 0     | 1,118 |



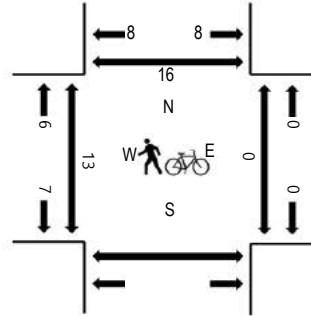
(303) 216-2439  
www.alltrafficdata.net

Location: 9 BORRESGAS AVE & MAUDE AVE  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 07:45 AM - 08:45 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | Northbound |      |      | BORRESGAS AVE Southbound |        |      |      | Total | Rolling Hour | Pedestrian Crossings |      |      |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|------------|------|------|--------------------------|--------|------|------|-------|--------------|----------------------|------|------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn     | Left | Thru | Right                    | U-Turn | Left | Thru |       |              | Right                | West | East | South |
| 7:00 AM             | 0                   | 5    | 43   | 0     | 0                   | 0    | 81   | 7     |            |      |      | 0                        | 14     | 0    | 69   | 219   | 1,056        | 3                    | 0    | 1    |       |
| 7:15 AM             | 0                   | 10   | 46   | 0     | 0                   | 0    | 84   | 7     |            |      |      | 0                        | 18     | 0    | 69   | 234   | 1,152        | 2                    | 0    | 3    |       |
| 7:30 AM             | 0                   | 18   | 60   | 0     | 0                   | 0    | 83   | 17    |            |      |      | 0                        | 28     | 0    | 58   | 264   | 1,195        | 7                    | 0    | 3    |       |
| 7:45 AM             | 0                   | 18   | 51   | 0     | 0                   | 0    | 131  | 19    |            |      |      | 0                        | 55     | 0    | 65   | 339   | 1,197        | 4                    | 0    | 4    |       |
| 8:00 AM             | 0                   | 10   | 51   | 0     | 0                   | 0    | 152  | 27    |            |      |      | 0                        | 21     | 0    | 54   | 315   | 1,151        | 3                    | 0    | 4    |       |
| 8:15 AM             | 0                   | 19   | 62   | 0     | 0                   | 0    | 120  | 12    |            |      |      | 0                        | 14     | 0    | 50   | 277   |              | 4                    | 0    | 5    |       |
| 8:30 AM             | 0                   | 12   | 57   | 0     | 0                   | 0    | 130  | 5     |            |      |      | 0                        | 14     | 0    | 48   | 266   |              | 1                    | 0    | 3    |       |
| 8:45 AM             | 0                   | 18   | 40   | 0     | 0                   | 0    | 151  | 7     |            |      |      | 0                        | 16     | 0    | 61   | 293   |              | 1                    | 0    | 1    |       |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 1    | 0     | 0         | 0    | 1    | 0     |            |      |      |       | 0          | 0    | 0    | 0     | 2     |
| Lights             | 0         | 59   | 211  | 0     | 0         | 0    | 524  | 62    |            |      |      |       | 0          | 104  | 0    | 217   | 1,177 |
| Mediums            | 0         | 0    | 9    | 0     | 0         | 0    | 8    | 1     |            |      |      |       | 0          | 0    | 0    | 0     | 18    |
| Total              | 0         | 59   | 221  | 0     | 0         | 0    | 533  | 63    |            |      |      |       | 0          | 104  | 0    | 217   | 1,197 |



(303) 216-2439  
www.alltrafficdata.net

Location: 9 SUNNYVALE AVE & MAUDE AVE PM

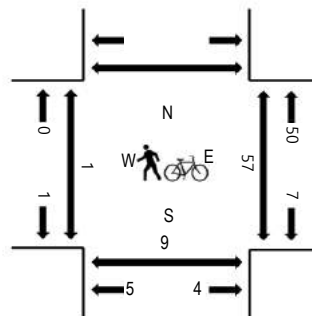
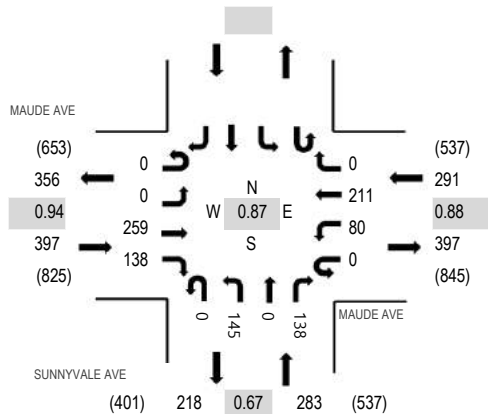
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 02:15 PM - 03:15 PM

Peak 15-Minutes: 02:15 PM - 02:30 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | SUNNYVALE AVE Northbound |      |      |       | SUNNYVALE AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 1                   | 0    | 70   | 38    | 0                   | 12   | 51   | 0     | 0                        | 0    | 31   | 0     | 42                       | 245  | 960  | 0     | 18    | 8            |                      |      |       |       |
| 2:15 PM             | 0                   | 0    | 58   | 37    | 0                   | 21   | 53   | 0     | 0                        | 0    | 52   | 0     | 57                       | 278  | 971  | 0     | 44    | 6            |                      |      |       |       |
| 2:30 PM             | 0                   | 0    | 62   | 30    | 0                   | 16   | 44   | 0     | 0                        | 0    | 19   | 0     | 21                       | 192  | 930  | 0     | 1     | 1            |                      |      |       |       |
| 2:45 PM             | 0                   | 0    | 68   | 36    | 0                   | 18   | 55   | 0     | 0                        | 0    | 33   | 0     | 35                       | 245  | 959  | 0     | 1     | 1            |                      |      |       |       |
| 3:00 PM             | 0                   | 0    | 71   | 35    | 0                   | 25   | 59   | 0     | 0                        | 0    | 41   | 0     | 25                       | 256  | 939  | 1     | 6     | 0            |                      |      |       |       |
| 3:15 PM             | 0                   | 0    | 66   | 31    | 0                   | 25   | 55   | 0     | 0                        | 0    | 29   | 0     | 31                       | 237  |      | 0     | 2     | 2            |                      |      |       |       |
| 3:30 PM             | 0                   | 0    | 85   | 28    | 0                   | 14   | 40   | 0     | 0                        | 0    | 26   | 0     | 28                       | 221  |      | 0     | 8     | 0            |                      |      |       |       |
| 3:45 PM             | 0                   | 0    | 85   | 24    | 0                   | 11   | 38   | 0     | 0                        | 0    | 26   | 0     | 41                       | 225  |      | 0     | 3     | 3            |                      |      |       |       |

Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |   |   |     |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|---|---|-----|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |   |   |     |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     | 0 | 0 | 0   |
| Lights             | 0         | 0    | 252  | 137   | 0         | 76   | 205  | 0     | 0          | 0    | 144  | 0     | 134        | 0    | 0    | 0     | 0     | 0 | 0 | 948 |
| Mediums            | 0         | 0    | 7    | 1     | 0         | 4    | 6    | 0     | 0          | 0    | 1    | 0     | 4          | 0    | 0    | 0     | 0     | 0 | 0 | 23  |
| Total              | 0         | 0    | 259  | 138   | 0         | 80   | 211  | 0     | 0          | 0    | 145  | 0     | 138        | 0    | 0    | 0     | 0     | 0 | 0 | 971 |



(303) 216-2439  
www.alltrafficdata.net

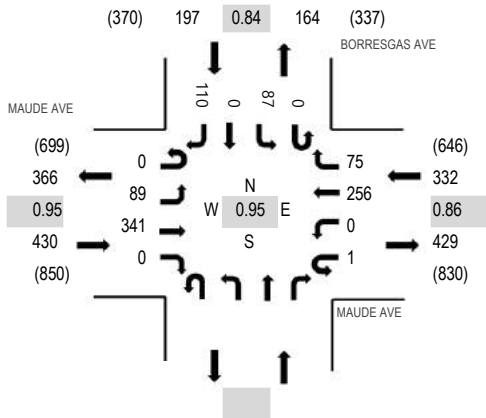
Location: 9 BORRESGAS AVE & MAUDE AVE PM

Date and Start Time: Tuesday, May 16, 2017

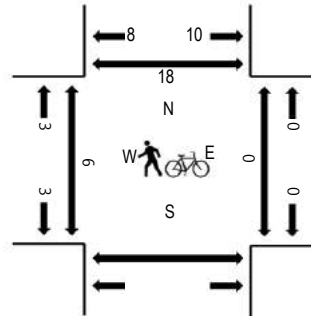
Peak Hour: 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:00 PM - 03:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | Northbound |      |      | BORRESGAS AVE Southbound |        |      |      | Total | Rolling Hour | Pedestrian Crossings |      |      |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|------------|------|------|--------------------------|--------|------|------|-------|--------------|----------------------|------|------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn     | Left | Thru | Right                    | U-Turn | Left | Thru |       |              | Right                | West | East | South |
| 2:00 PM             | 0                   | 19   | 94   | 0     | 0                   | 0    | 66   | 18    |            |      |      | 0                        | 17     | 0    | 20   | 234   | 931          | 0                    | 0    | 4    |       |
| 2:15 PM             | 0                   | 20   | 75   | 0     | 0                   | 0    | 57   | 41    |            |      |      | 0                        | 21     | 0    | 43   | 257   | 950          | 0                    | 0    | 18   |       |
| 2:30 PM             | 0                   | 22   | 73   | 0     | 0                   | 0    | 48   | 13    |            |      |      | 0                        | 15     | 0    | 23   | 194   | 926          | 2                    | 0    | 2    |       |
| 2:45 PM             | 0                   | 26   | 75   | 0     | 1                   | 0    | 64   | 22    |            |      |      | 0                        | 26     | 0    | 32   | 246   | 959          | 3                    | 0    | 5    |       |
| 3:00 PM             | 0                   | 19   | 89   | 0     | 0                   | 0    | 78   | 13    |            |      |      | 0                        | 26     | 0    | 28   | 253   | 935          | 1                    | 0    | 4    |       |
| 3:15 PM             | 0                   | 24   | 83   | 0     | 0                   | 0    | 63   | 20    |            |      |      | 0                        | 17     | 0    | 26   | 233   |              | 2                    | 0    | 2    |       |
| 3:30 PM             | 0                   | 20   | 94   | 0     | 0                   | 0    | 51   | 20    |            |      |      | 0                        | 18     | 0    | 24   | 227   |              | 0                    | 0    | 6    |       |
| 3:45 PM             | 0                   | 24   | 93   | 0     | 0                   | 0    | 55   | 16    |            |      |      | 0                        | 13     | 0    | 21   | 222   |              | 1                    | 0    | 9    |       |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 1    | 0     | 0         | 0    | 0    | 0     |            |      |      |       | 0          | 0    | 0    | 0     | 1     |
| Lights             | 0         | 89   | 337  | 0     | 1         | 0    | 250  | 74    |            |      |      |       | 0          | 86   | 0    | 110   | 947   |
| Mediums            | 0         | 0    | 3    | 0     | 0         | 0    | 6    | 1     |            |      |      |       | 0          | 1    | 0    | 0     | 11    |
| Total              | 0         | 89   | 341  | 0     | 1         | 0    | 256  | 75    |            |      |      |       | 0          | 87   | 0    | 110   | 959   |





(303) 216-2439  
www.alltrafficdata.net

Location: 9 SUNNYVALE AVE & MAUDE AVE PM

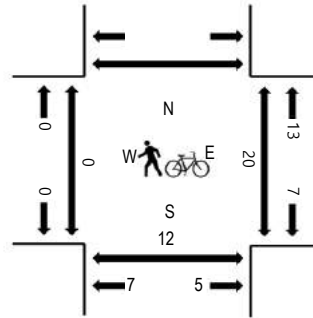
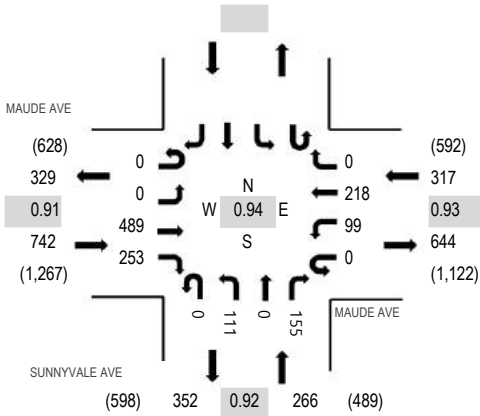
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | SUNNYVALE AVE Northbound |      |      |       | SUNNYVALE AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |              | West                 | East | South | North |
| 4:00 PM             | 0                   | 0    | 86   | 31    | 0                   | 14   | 43   | 0     | 0                        | 0    | 22   | 0     | 35                       | 0    | 0    | 0     | 0     | 231          | 1,025                | 0    | 0     | 1     |
| 4:15 PM             | 0                   | 0    | 86   | 28    | 0                   | 14   | 45   | 0     | 0                        | 0    | 27   | 0     | 29                       | 0    | 0    | 0     | 0     | 229          | 1,100                | 0    | 3     | 1     |
| 4:30 PM             | 0                   | 0    | 81   | 27    | 0                   | 26   | 47   | 0     | 0                        | 0    | 32   | 0     | 33                       | 0    | 0    | 0     | 0     | 246          | 1,220                | 0    | 2     | 4     |
| 4:45 PM             | 0                   | 0    | 118  | 53    | 0                   | 23   | 61   | 0     | 0                        | 0    | 23   | 0     | 41                       | 0    | 0    | 0     | 0     | 319          | 1,325                | 0    | 4     | 2     |
| 5:00 PM             | 0                   | 0    | 116  | 46    | 0                   | 23   | 52   | 0     | 0                        | 0    | 32   | 0     | 37                       | 0    | 0    | 0     | 0     | 306          | 1,323                | 0    | 3     | 1     |
| 5:15 PM             | 0                   | 0    | 136  | 73    | 0                   | 27   | 52   | 0     | 0                        | 0    | 24   | 0     | 37                       | 0    | 0    | 0     | 0     | 349          |                      | 0    | 6     | 3     |
| 5:30 PM             | 0                   | 0    | 119  | 81    | 0                   | 26   | 53   | 0     | 0                        | 0    | 32   | 0     | 40                       | 0    | 0    | 0     | 0     | 351          |                      | 0    | 6     | 6     |
| 5:45 PM             | 0                   | 0    | 104  | 82    | 0                   | 24   | 62   | 0     | 0                        | 0    | 21   | 0     | 24                       | 0    | 0    | 0     | 0     | 317          |                      | 0    | 7     | 5     |

Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |       |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |       |
| Lights             | 0         | 0    | 485  | 252   | 0         | 96   | 217  | 0     | 0          | 0    | 110  | 0     | 151        | 0    | 0    | 0     | 0     | 1,311 |
| Mediums            | 0         | 0    | 4    | 1     | 0         | 3    | 1    | 0     | 0          | 0    | 1    | 0     | 4          | 0    | 0    | 0     | 0     | 14    |
| Total              | 0         | 0    | 489  | 253   | 0         | 99   | 218  | 0     | 0          | 0    | 111  | 0     | 155        | 0    | 0    | 0     | 0     | 1,325 |



(303) 216-2439  
www.alltrafficdata.net

Location: 9 BORREGAS AVE & MAUDE AVE PM

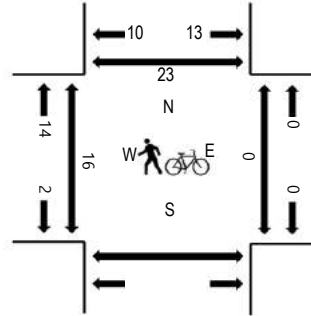
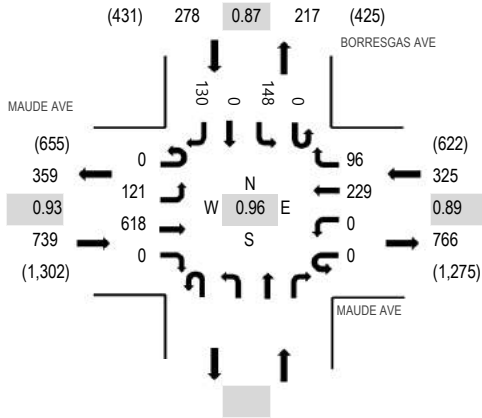
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

**Peak Hour - All Vehicles**

**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | Northbound |      |      | BORREGAS AVE Southbound |        |      |      | Total | Rolling Hour | Pedestrian Crossings |      |      |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|------------|------|------|-------------------------|--------|------|------|-------|--------------|----------------------|------|------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn     | Left | Thru | Right                   | U-Turn | Left | Thru |       |              | Right                | West | East | South |
| 4:00 PM             | 0                   | 26   | 103  | 0     | 0                   | 0    | 42   | 22    |            |      |      | 0                       | 14     | 0    | 21   | 228   | 1,013        | 3                    | 0    | 1    |       |
| 4:15 PM             | 0                   | 25   | 100  | 0     | 0                   | 0    | 52   | 17    |            |      |      | 0                       | 14     | 0    | 25   | 233   | 1,092        | 0                    | 0    | 1    |       |
| 4:30 PM             | 0                   | 32   | 85   | 0     | 0                   | 0    | 55   | 21    |            |      |      | 0                       | 19     | 0    | 20   | 232   | 1,203        | 3                    | 0    | 3    |       |
| 4:45 PM             | 0                   | 38   | 154  | 0     | 0                   | 0    | 61   | 27    |            |      |      | 0                       | 20     | 0    | 20   | 320   | 1,319        | 1                    | 0    | 1    |       |
| 5:00 PM             | 0                   | 21   | 149  | 0     | 0                   | 0    | 57   | 21    |            |      |      | 0                       | 19     | 0    | 40   | 307   | 1,342        | 3                    | 0    | 3    |       |
| 5:15 PM             | 0                   | 34   | 170  | 0     | 0                   | 0    | 55   | 23    |            |      |      | 0                       | 36     | 0    | 26   | 344   |              | 2                    | 0    | 4    |       |
| 5:30 PM             | 0                   | 29   | 161  | 0     | 0                   | 0    | 48   | 30    |            |      |      | 0                       | 49     | 0    | 31   | 348   |              | 4                    | 0    | 10   |       |
| 5:45 PM             | 0                   | 37   | 138  | 0     | 0                   | 0    | 69   | 22    |            |      |      | 0                       | 44     | 0    | 33   | 343   |              | 6                    | 0    | 6    |       |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     |            |      |      |       | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 121  | 614  | 0     | 0         | 0    | 228  | 96    |            |      |      |       | 0          | 147  | 0    | 130   | 1,336 |
| Mediums            | 0         | 0    | 4    | 0     | 0         | 0    | 1    | 0     |            |      |      |       | 0          | 1    | 0    | 0     | 6     |
| Total              | 0         | 121  | 618  | 0     | 0         | 0    | 229  | 96    |            |      |      |       | 0          | 148  | 0    | 130   | 1,342 |

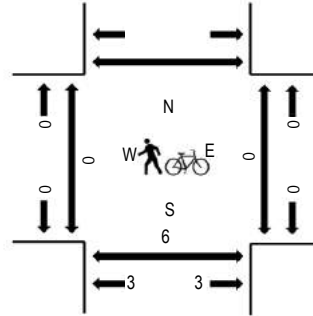
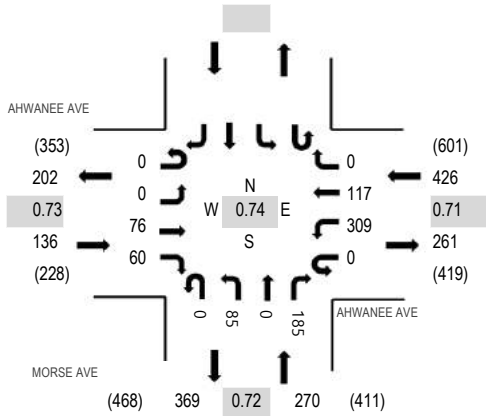


(303) 216-2439  
www.alltrafficdata.net

Location: 16 MORSE AVE & AHWANEE AVE AM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**

**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | AHWANEE AVE Eastbound |      |      |       | AHWANEE AVE Westbound |      |      |       | MORSE AVE Northbound |      |      |       | Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|----------------------|------|------|-------|------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                | Left | Thru | Right | U-Turn                | Left | Thru | Right | U-Turn               | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |              | West                 | East | South | North |
| 7:00 AM             | 0                     | 0    | 23   | 0     | 0                     | 18   | 21   | 0     | 0                    | 0    | 7    | 0     | 9          | 0    | 0    | 0     | 0     | 78           | 765                  | 0    | 0     | 0     |
| 7:15 AM             | 0                     | 0    | 22   | 11    | 0                     | 44   | 23   | 0     | 0                    | 0    | 16   | 0     | 30         | 0    | 0    | 0     | 0     | 146          | 817                  | 0    | 0     | 2     |
| 7:30 AM             | 0                     | 0    | 25   | 25    | 0                     | 107  | 27   | 0     | 0                    | 0    | 26   | 0     | 49         | 0    | 0    | 0     | 0     | 259          | 832                  | 0    | 0     | 5     |
| 7:45 AM             | 0                     | 0    | 18   | 20    | 0                     | 121  | 29   | 0     | 0                    | 0    | 26   | 0     | 68         | 0    | 0    | 0     | 0     | 282          | 685                  | 0    | 0     | 0     |
| 8:00 AM             | 0                     | 0    | 16   | 8     | 0                     | 33   | 32   | 0     | 0                    | 0    | 12   | 0     | 29         | 0    | 0    | 0     | 0     | 130          | 475                  | 0    | 0     | 0     |
| 8:15 AM             | 0                     | 0    | 17   | 7     | 0                     | 48   | 29   | 0     | 0                    | 0    | 21   | 0     | 39         | 0    | 0    | 0     | 0     | 161          |                      | 0    | 0     | 1     |
| 8:30 AM             | 0                     | 0    | 20   | 4     | 0                     | 13   | 21   | 0     | 0                    | 0    | 26   | 0     | 28         | 0    | 0    | 0     | 0     | 112          |                      | 0    | 0     | 2     |
| 8:45 AM             | 0                     | 0    | 11   | 1     | 0                     | 8    | 27   | 0     | 0                    | 0    | 10   | 0     | 15         | 0    | 0    | 0     | 0     | 72           |                      | 0    | 0     | 0     |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |     |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|-----|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |     |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |     |
| Lights             | 0         | 0    | 73   | 59    | 0         | 302  | 116  | 0     | 0          | 0    | 85   | 0     | 182        | 0    | 0    | 0     | 0     | 817 |
| Mediums            | 0         | 0    | 3    | 1     | 0         | 7    | 1    | 0     | 0          | 0    | 0    | 0     | 3          | 0    | 0    | 0     | 0     | 15  |
| Total              | 0         | 0    | 76   | 60    | 0         | 309  | 117  | 0     | 0          | 0    | 85   | 0     | 185        | 0    | 0    | 0     | 0     | 832 |



(303) 216-2439  
www.alltrafficdata.net

Location: 16 MORSE AVE & AHWANEE AVE PM

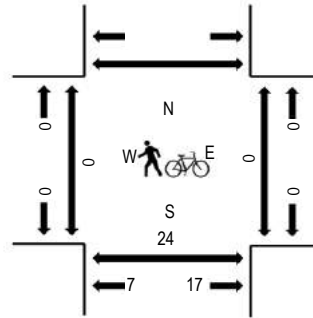
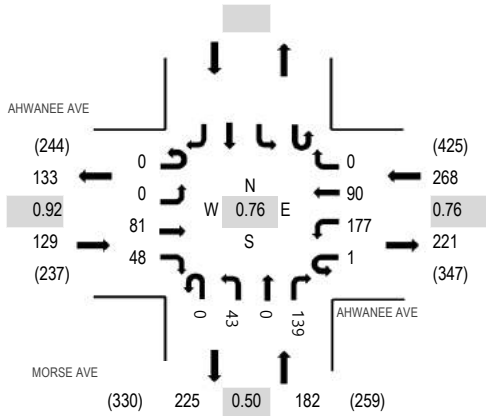
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 02:30 PM - 03:30 PM

Peak 15-Minutes: 02:45 PM - 03:00 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | AHWANEE AVE Eastbound |      |      |       | AHWANEE AVE Westbound |      |      |       | MORSE AVE Northbound |      |      |       | Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|----------------------|------|------|-------|------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                | Left | Thru | Right | U-Turn                | Left | Thru | Right | U-Turn               | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                     | 0    | 13   | 3     | 0                     | 8    | 15   | 0     | 0                    | 7    | 0    | 4     | 0          | 0    | 0    | 0     | 50    | 481          | 0                    | 0    | 1     |       |
| 2:15 PM             | 0                     | 0    | 15   | 11    | 1                     | 27   | 21   | 0     | 0                    | 12   | 0    | 7     | 0          | 0    | 0    | 0     | 94    | 559          | 0                    | 0    | 2     |       |
| 2:30 PM             | 0                     | 0    | 17   | 16    | 0                     | 67   | 21   | 0     | 0                    | 5    | 0    | 20    | 0          | 0    | 0    | 0     | 146   | 579          | 0                    | 0    | 2     |       |
| 2:45 PM             | 0                     | 0    | 22   | 13    | 0                     | 46   | 19   | 0     | 0                    | 18   | 0    | 73    | 0          | 0    | 0    | 0     | 191   | 531          | 0                    | 0    | 14    |       |
| 3:00 PM             | 0                     | 0    | 21   | 6     | 0                     | 45   | 22   | 0     | 0                    | 8    | 0    | 26    | 0          | 0    | 0    | 0     | 128   | 440          | 0                    | 0    | 2     |       |
| 3:15 PM             | 0                     | 0    | 21   | 13    | 1                     | 19   | 28   | 0     | 0                    | 12   | 0    | 20    | 0          | 0    | 0    | 0     | 114   |              | 0                    | 0    | 4     |       |
| 3:30 PM             | 0                     | 0    | 28   | 8     | 0                     | 18   | 21   | 0     | 0                    | 5    | 0    | 18    | 0          | 0    | 0    | 0     | 98    |              | 0                    | 0    | 5     |       |
| 3:45 PM             | 0                     | 0    | 24   | 6     | 0                     | 24   | 22   | 0     | 0                    | 8    | 0    | 16    | 0          | 0    | 0    | 0     | 100   |              | 0                    | 0    | 4     |       |

Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 0    | 79   | 48    | 1         | 175  | 89   | 0     | 0          | 42   | 0    | 138   | 0          | 0    | 0    | 0     | 572   |
| Mediums            | 0         | 0    | 2    | 0     | 0         | 2    | 1    | 0     | 0          | 1    | 0    | 1     | 0          | 0    | 0    | 0     | 7     |
| Total              | 0         | 0    | 81   | 48    | 1         | 177  | 90   | 0     | 0          | 43   | 0    | 139   | 0          | 0    | 0    | 0     | 579   |

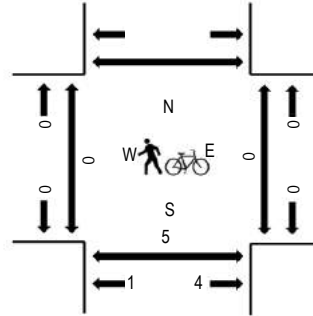
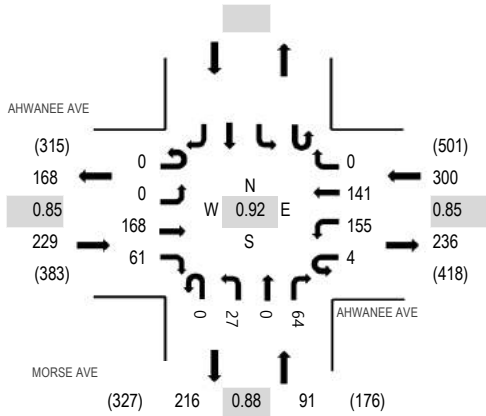


(303) 216-2439  
www.alltrafficdata.net

Location: 16 MORSE AVE & AHWANEE AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 05:00 PM - 06:00 PM  
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval Start Time | AHWANEE AVE Eastbound |      |      |       | AHWANEE AVE Westbound |      |      |       | MORSE AVE Northbound |      |      |       | Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|----------------------|------|------|-------|------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                | Left | Thru | Right | U-Turn                | Left | Thru | Right | U-Turn               | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |              | West                 | East | South | North |
| 4:00 PM             | 0                     | 0    | 22   | 8     | 0                     | 14   | 19   | 0     | 0                    | 0    | 9    | 0     | 11         | 0    | 0    | 0     | 0     | 83           | 440                  | 0    | 0     | 1     |
| 4:15 PM             | 0                     | 0    | 35   | 6     | 0                     | 29   | 30   | 0     | 0                    | 0    | 9    | 0     | 13         | 0    | 0    | 0     | 0     | 122          | 485                  | 0    | 0     | 1     |
| 4:30 PM             | 0                     | 0    | 26   | 9     | 1                     | 18   | 39   | 0     | 0                    | 0    | 4    | 0     | 17         | 0    | 0    | 0     | 0     | 114          | 521                  | 0    | 0     | 3     |
| 4:45 PM             | 0                     | 0    | 43   | 5     | 0                     | 22   | 29   | 0     | 0                    | 0    | 8    | 0     | 14         | 0    | 0    | 0     | 0     | 121          | 576                  | 0    | 0     | 5     |
| 5:00 PM             | 0                     | 0    | 35   | 14    | 2                     | 19   | 34   | 0     | 0                    | 0    | 9    | 0     | 15         | 0    | 0    | 0     | 0     | 128          | 620                  | 0    | 0     | 1     |
| 5:15 PM             | 0                     | 0    | 49   | 18    | 0                     | 41   | 31   | 0     | 0                    | 0    | 5    | 0     | 14         | 0    | 0    | 0     | 0     | 158          |                      | 0    | 0     | 0     |
| 5:30 PM             | 0                     | 0    | 43   | 16    | 0                     | 52   | 36   | 0     | 0                    | 0    | 4    | 0     | 18         | 0    | 0    | 0     | 0     | 169          |                      | 0    | 0     | 2     |
| 5:45 PM             | 0                     | 0    | 41   | 13    | 2                     | 43   | 40   | 0     | 0                    | 0    | 9    | 0     | 17         | 0    | 0    | 0     | 0     | 165          |                      | 0    | 0     | 2     |

Peak Rolling Hour Flow Rates

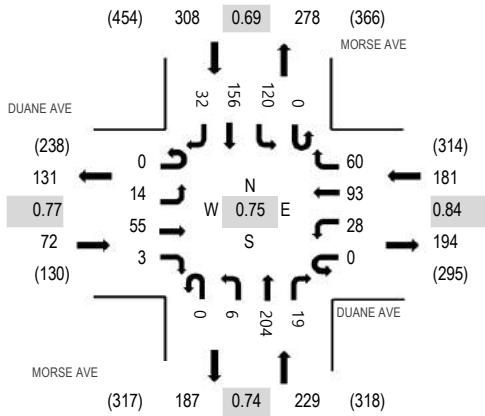
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |     |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|-----|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |     |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |     |
| Lights             | 0         | 0    | 167  | 60    | 4         | 155  | 139  | 0     | 0          | 0    | 27   | 0     | 64         | 0    | 0    | 0     | 0     | 616 |
| Mediums            | 0         | 0    | 1    | 1     | 0         | 0    | 2    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     | 4   |
| Total              | 0         | 0    | 168  | 61    | 4         | 155  | 141  | 0     | 0          | 0    | 27   | 0     | 64         | 0    | 0    | 0     | 0     | 620 |



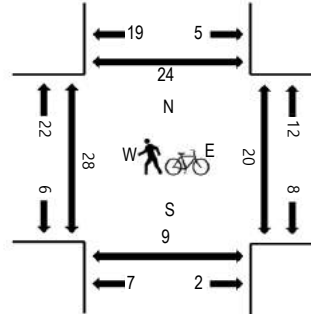
(303) 216-2439  
www.alltrafficdata.net

Location: 10 MORSE AVE & DUANE AVE AM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | DUANE AVE Eastbound |      |      |       | DUANE AVE Westbound |      |      |       | MORSE AVE Northbound |      |      |       | MORSE AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |   |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|----------------------|------|------|-------|----------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|---|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn               | Left | Thru | Right | U-Turn               | Left | Thru | Right |       |              | West                 | East | South | North |   |
| 7:00 AM             | 0                   | 2    | 6    | 0     | 0                   | 8    | 14   | 2     | 0                    | 0    | 8    | 1     | 0                    | 0    | 1    | 22    | 1     | 65           | 626                  | 1    | 1     | 0     | 1 |
| 7:15 AM             | 0                   | 1    | 7    | 2     | 0                   | 7    | 13   | 7     | 0                    | 2    | 21   | 3     | 0                    | 13   | 26   | 7     | 109   | 727          | 5                    | 1    | 4     | 0     |   |
| 7:30 AM             | 0                   | 4    | 15   | 0     | 0                   | 4    | 26   | 10    | 0                    | 1    | 50   | 7     | 0                    | 25   | 39   | 9     | 190   | 790          | 7                    | 5    | 1     | 13    |   |
| 7:45 AM             | 0                   | 3    | 19   | 2     | 0                   | 10   | 24   | 15    | 0                    | 0    | 76   | 1     | 0                    | 47   | 56   | 9     | 262   | 747          | 15                   | 11   | 5     | 6     |   |
| 8:00 AM             | 0                   | 4    | 6    | 0     | 0                   | 9    | 29   | 16    | 0                    | 4    | 19   | 3     | 0                    | 31   | 37   | 8     | 166   | 590          | 3                    | 0    | 0     | 3     |   |
| 8:15 AM             | 0                   | 3    | 15   | 1     | 0                   | 5    | 14   | 19    | 0                    | 1    | 59   | 8     | 0                    | 17   | 24   | 6     | 172   |              | 2                    | 4    | 1     | 1     |   |
| 8:30 AM             | 0                   | 1    | 18   | 2     | 0                   | 7    | 26   | 3     | 0                    | 0    | 26   | 8     | 0                    | 18   | 32   | 6     | 147   |              | 0                    | 3    | 1     | 2     |   |
| 8:45 AM             | 0                   | 2    | 16   | 1     | 0                   | 9    | 33   | 4     | 0                    | 3    | 11   | 6     | 0                    | 4    | 14   | 2     | 105   |              | 1                    | 0    | 0     | 2     |   |

**Peak Rolling Hour Flow Rates**

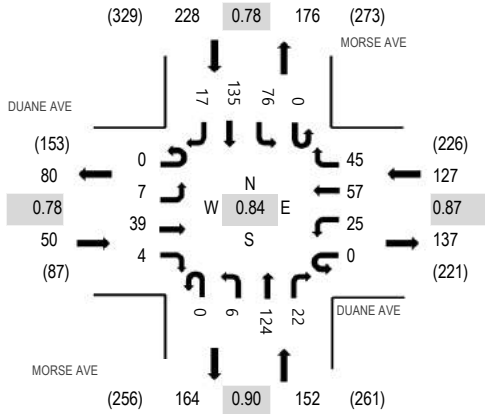
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |   |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|---|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |   |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     | 0 |
| Lights             | 0         | 14   | 55   | 3     | 0         | 28   | 93   | 60    | 0          | 6    | 203  | 18    | 0          | 119  | 154  | 31    | 784   |   |
| Mediums            | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 1    | 1     | 0          | 1    | 2    | 1     | 6     |   |
| Total              | 0         | 14   | 55   | 3     | 0         | 28   | 93   | 60    | 0          | 6    | 204  | 19    | 0          | 120  | 156  | 32    | 790   |   |



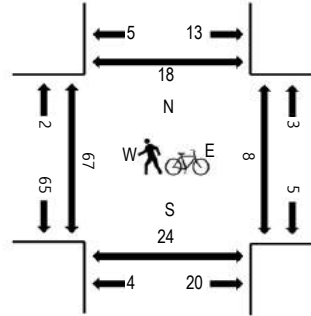
(303) 216-2439  
www.alltrafficdata.net

Location: 10 MORSE AVE & DUANE AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 02:30 PM - 03:30 PM  
Peak 15-Minutes: 02:45 PM - 03:00 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | DUANE AVE Eastbound |      |      |       | DUANE AVE Westbound |      |      |       | MORSE AVE Northbound |      |      |       | MORSE AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|----------------------|------|------|-------|----------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn               | Left | Thru | Right | U-Turn               | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                   | 0    | 13   | 0     | 0                   | 4    | 11   | 5     | 0                    | 2    | 15   | 8     | 0                    | 5    | 21   | 1     | 85    | 443          | 1                    | 0    | 0     | 0     |
| 2:15 PM             | 0                   | 2    | 6    | 0     | 0                   | 9    | 16   | 3     | 0                    | 2    | 28   | 5     | 0                    | 2    | 12   | 3     | 88    | 504          | 6                    | 4    | 0     | 4     |
| 2:30 PM             | 0                   | 2    | 12   | 1     | 0                   | 4    | 15   | 18    | 0                    | 1    | 31   | 4     | 0                    | 4    | 11   | 1     | 104   | 557          | 0                    | 2    | 5     | 1     |
| 2:45 PM             | 0                   | 2    | 7    | 0     | 0                   | 8    | 15   | 12    | 0                    | 2    | 36   | 6     | 0                    | 34   | 42   | 2     | 166   | 536          | 40                   | 1    | 13    | 8     |
| 3:00 PM             | 0                   | 1    | 6    | 3     | 0                   | 7    | 13   | 9     | 0                    | 2    | 32   | 9     | 0                    | 21   | 38   | 5     | 146   | 460          | 20                   | 4    | 1     | 7     |
| 3:15 PM             | 0                   | 2    | 14   | 0     | 0                   | 6    | 14   | 6     | 0                    | 1    | 25   | 3     | 0                    | 17   | 44   | 9     | 141   |              | 2                    | 1    | 4     | 0     |
| 3:30 PM             | 0                   | 0    | 9    | 0     | 0                   | 3    | 16   | 3     | 0                    | 2    | 14   | 5     | 0                    | 10   | 19   | 2     | 83    |              | 8                    | 1    | 1     | 0     |
| 3:45 PM             | 0                   | 0    | 6    | 1     | 0                   | 7    | 16   | 6     | 0                    | 0    | 21   | 7     | 0                    | 8    | 16   | 2     | 90    |              | 1                    | 0    | 0     | 0     |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 7    | 38   | 4     | 0         | 25   | 55   | 45    | 0          | 5    | 122  | 22    | 0          | 72   | 134  | 17    | 546   |
| Mediums            | 0         | 0    | 1    | 0     | 0         | 0    | 2    | 0     | 0          | 1    | 2    | 0     | 0          | 4    | 1    | 0     | 11    |
| Total              | 0         | 7    | 39   | 4     | 0         | 25   | 57   | 45    | 0          | 6    | 124  | 22    | 0          | 76   | 135  | 17    | 557   |

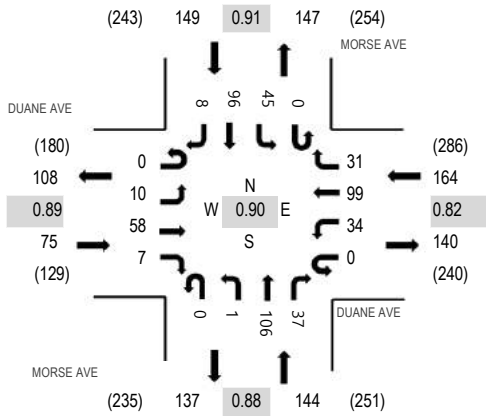




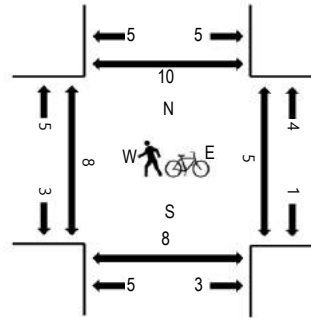
(303) 216-2439  
www.alltrafficdata.net

Location: 10 MORSE AVE & DUANE AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 05:00 PM - 06:00 PM  
Peak 15-Minutes: 05:45 PM - 06:00 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | DUANE AVE Eastbound |      |      |       | DUANE AVE Westbound |      |      |       | MORSE AVE Northbound |      |      |       | MORSE AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |   |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|----------------------|------|------|-------|----------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|---|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn               | Left | Thru | Right | U-Turn               | Left | Thru | Right |       |              | West                 | East | South | North |   |
| 4:00 PM             | 0                   | 1    | 10   | 0     | 0                   | 0    | 13   | 12    | 4                    | 0    | 1    | 22    | 3                    | 0    | 4    | 13    | 3     | 86           | 377                  | 1    | 0     | 0     | 3 |
| 4:15 PM             | 0                   | 0    | 14   | 0     | 0                   | 0    | 4    | 21    | 7                    | 0    | 3    | 14    | 5                    | 0    | 5    | 19    | 0     | 92           | 418                  | 6    | 1     | 0     | 0 |
| 4:30 PM             | 0                   | 3    | 15   | 0     | 0                   | 0    | 5    | 18    | 9                    | 0    | 0    | 14    | 8                    | 0    | 9    | 18    | 0     | 99           | 449                  | 2    | 0     | 6     | 0 |
| 4:45 PM             | 0                   | 0    | 11   | 0     | 0                   | 0    | 8    | 13    | 8                    | 0    | 0    | 25    | 12                   | 0    | 4    | 18    | 1     | 100          | 484                  | 3    | 1     | 4     | 2 |
| 5:00 PM             | 0                   | 3    | 14   | 1     | 0                   | 4    | 27   | 6     | 0                    | 0    | 30   | 8     | 0                    | 9    | 24   | 1     | 127   | 532          | 2                    | 0    | 5     | 1     |   |
| 5:15 PM             | 0                   | 3    | 16   | 2     | 0                   | 7    | 25   | 8     | 0                    | 0    | 18   | 8     | 0                    | 13   | 23   | 0     | 123   |              | 1                    | 0    | 0     | 2     |   |
| 5:30 PM             | 0                   | 1    | 17   | 0     | 0                   | 12   | 18   | 7     | 0                    | 0    | 32   | 9     | 0                    | 11   | 25   | 2     | 134   |              | 0                    | 1    | 1     | 1     |   |
| 5:45 PM             | 0                   | 3    | 11   | 4     | 0                   | 11   | 29   | 10    | 0                    | 1    | 26   | 12    | 0                    | 12   | 24   | 5     | 148   |              | 5                    | 4    | 2     | 5     |   |

**Peak Rolling Hour Flow Rates**

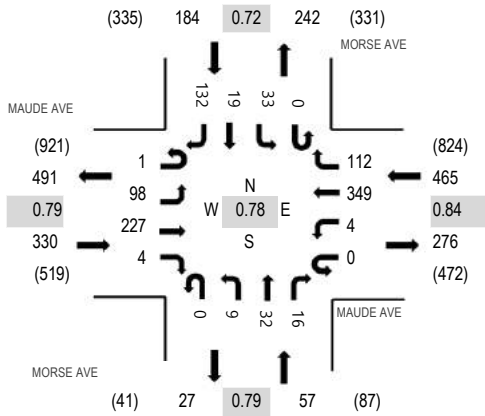
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 10   | 57   | 7     | 0         | 34   | 99   | 31    | 0          | 1    | 105  | 37    | 0          | 45   | 96   | 8     | 530   |
| Mediums            | 0         | 0    | 1    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 2     |
| Total              | 0         | 10   | 58   | 7     | 0         | 34   | 99   | 31    | 0          | 1    | 106  | 37    | 0          | 45   | 96   | 8     | 532   |



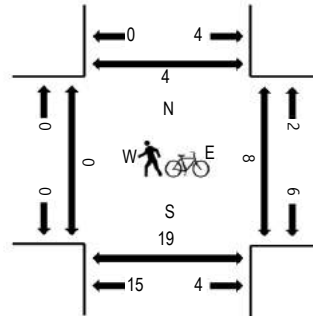
(303) 216-2439  
www.alltrafficdata.net

Location: 17 MORSE AVE & MAUDE AVE AM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | MORSE AVE Northbound |      |      |       | MORSE AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |   |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|----------------------|------|------|-------|----------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|---|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn               | Left | Thru | Right | U-Turn               | Left | Thru | Right |       |              | West                 | East | South | North |   |
| 7:00 AM             | 0                   | 6    | 24   | 0     | 0                   | 0    | 1    | 55    | 4                    | 0    | 3    | 0     | 6                    | 0    | 7    | 4     | 25    | 135          | 865                  | 1    | 0     | 2     | 3 |
| 7:15 AM             | 0                   | 10   | 38   | 0     | 0                   | 0    | 0    | 58    | 18                   | 0    | 4    | 2     | 2                    | 0    | 9    | 1     | 25    | 167          | 956                  | 2    | 0     | 7     | 2 |
| 7:30 AM             | 0                   | 22   | 57   | 1     | 0                   | 0    | 0    | 71    | 29                   | 0    | 1    | 8     | 6                    | 0    | 8    | 2     | 28    | 233          | 1,036                | 0    | 4     | 4     | 0 |
| 7:45 AM             | 1                   | 37   | 65   | 1     | 0                   | 4    | 103  | 32    | 0                    | 1    | 13   | 4     | 0                    | 7    | 8    | 54    | 330   | 1,016        | 0                    | 1    | 7     | 0     |   |
| 8:00 AM             | 0                   | 15   | 59   | 2     | 0                   | 0    | 81   | 9     | 0                    | 4    | 4    | 5     | 0                    | 11   | 8    | 28    | 226   | 900          | 0                    | 2    | 6     | 3     |   |
| 8:15 AM             | 0                   | 24   | 46   | 0     | 0                   | 0    | 94   | 42    | 0                    | 3    | 7    | 1     | 0                    | 7    | 1    | 22    | 247   |              | 0                    | 1    | 1     | 1     |   |
| 8:30 AM             | 0                   | 18   | 41   | 0     | 0                   | 1    | 81   | 10    | 0                    | 4    | 3    | 2     | 0                    | 18   | 3    | 32    | 213   |              | 1                    | 1    | 7     | 3     |   |
| 8:45 AM             | 0                   | 12   | 39   | 1     | 0                   | 0    | 125  | 6     | 0                    | 4    | 0    | 0     | 0                    | 10   | 3    | 14    | 214   |              | 0                    | 0    | 1     | 0     |   |

**Peak Rolling Hour Flow Rates**

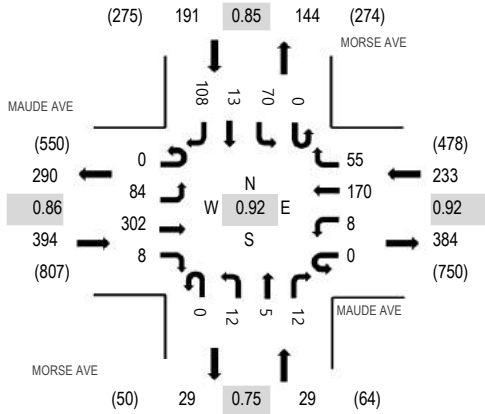
| Vehicle Type       | Eastbound |           |            |          | Westbound |          |            |            | Northbound |          |           |           | Southbound |           |           |            | Total        |
|--------------------|-----------|-----------|------------|----------|-----------|----------|------------|------------|------------|----------|-----------|-----------|------------|-----------|-----------|------------|--------------|
|                    | U-Turn    | Left      | Thru       | Right    | U-Turn    | Left     | Thru       | Right      | U-Turn     | Left     | Thru      | Right     | U-Turn     | Left      | Thru      | Right      |              |
| Articulated Trucks | 0         | 0         | 0          | 0        | 0         | 0        | 0          | 0          | 0          | 0        | 0         | 0         | 0          | 0         | 0         | 0          | 0            |
| Lights             | 1         | 97        | 222        | 4        | 0         | 4        | 340        | 110        | 0          | 9        | 32        | 16        | 0          | 33        | 19        | 131        | 1,018        |
| Mediums            | 0         | 1         | 5          | 0        | 0         | 0        | 9          | 2          | 0          | 0        | 0         | 0         | 0          | 0         | 0         | 1          | 18           |
| <b>Total</b>       | <b>1</b>  | <b>98</b> | <b>227</b> | <b>4</b> | <b>0</b>  | <b>4</b> | <b>349</b> | <b>112</b> | <b>0</b>   | <b>9</b> | <b>32</b> | <b>16</b> | <b>0</b>   | <b>33</b> | <b>19</b> | <b>132</b> | <b>1,036</b> |



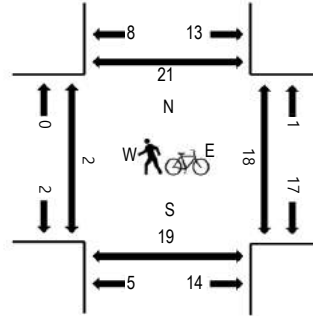
(303) 216-2439  
www.alltrafficdata.net

Location: 17 MORSE AVE & MAUDE AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 02:45 PM - 03:45 PM  
Peak 15-Minutes: 03:00 PM - 03:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | MORSE AVE Northbound |      |      |       | MORSE AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|----------------------|------|------|-------|----------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn               | Left | Thru | Right | U-Turn               | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                   | 17   | 74   | 4     | 0                   | 0    | 56   | 8     | 0                    | 2    | 1    | 1     | 0                    | 4    | 2    | 20    | 189   | 794          | 0                    | 1    | 14    | 3     |
| 2:15 PM             | 0                   | 27   | 93   | 3     | 0                   | 2    | 51   | 6     | 0                    | 2    | 9    | 5     | 0                    | 6    | 1    | 14    | 219   | 835          | 0                    | 0    | 23    | 4     |
| 2:30 PM             | 0                   | 11   | 60   | 0     | 0                   | 1    | 49   | 20    | 0                    | 1    | 5    | 4     | 0                    | 6    | 4    | 5     | 166   | 822          | 0                    | 0    | 0     | 8     |
| 2:45 PM             | 0                   | 26   | 63   | 1     | 0                   | 0    | 43   | 21    | 0                    | 4    | 2    | 4     | 0                    | 18   | 8    | 30    | 220   | 847          | 0                    | 4    | 5     | 1     |
| 3:00 PM             | 0                   | 25   | 73   | 4     | 0                   | 2    | 43   | 17    | 0                    | 5    | 2    | 5     | 0                    | 20   | 0    | 34    | 230   | 830          | 2                    | 9    | 3     | 8     |
| 3:15 PM             | 0                   | 15   | 76   | 1     | 0                   | 4    | 43   | 8     | 0                    | 2    | 0    | 1     | 0                    | 22   | 2    | 32    | 206   |              | 0                    | 4    | 6     | 1     |
| 3:30 PM             | 0                   | 18   | 90   | 2     | 0                   | 2    | 41   | 9     | 0                    | 1    | 1    | 2     | 0                    | 10   | 3    | 12    | 191   |              | 0                    | 1    | 5     | 10    |
| 3:45 PM             | 0                   | 18   | 105  | 1     | 0                   | 1    | 45   | 6     | 0                    | 1    | 2    | 2     | 0                    | 6    | 2    | 14    | 203   |              | 1                    | 1    | 1     | 0     |

**Peak Rolling Hour Flow Rates**

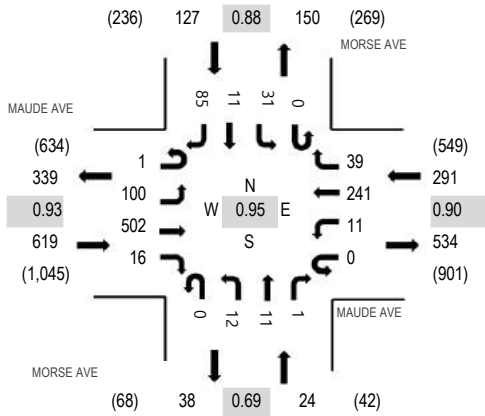
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 83   | 290  | 8     | 0         | 8    | 164  | 55    | 0          | 12   | 5    | 12    | 0          | 69   | 12   | 107   | 825   |
| Mediums            | 0         | 1    | 12   | 0     | 0         | 0    | 6    | 0     | 0          | 0    | 0    | 0     | 0          | 1    | 1    | 1     | 22    |
| Total              | 0         | 84   | 302  | 8     | 0         | 8    | 170  | 55    | 0          | 12   | 5    | 12    | 0          | 70   | 13   | 108   | 847   |



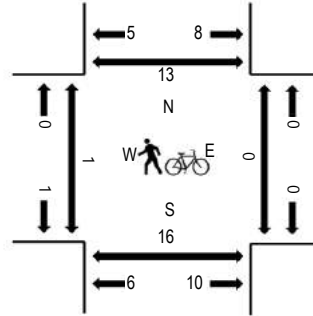
(303) 216-2439  
www.alltrafficdata.net

Location: 17 MORSE AVE & MAUDE AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 04:45 PM - 05:45 PM  
Peak 15-Minutes: 05:30 PM - 05:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | MORSE AVE Northbound |      |      |       | MORSE AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |   |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|----------------------|------|------|-------|----------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|---|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn               | Left | Thru | Right | U-Turn               | Left | Thru | Right |       |              | West                 | East | South | North |   |
| 4:00 PM             | 0                   | 17   | 97   | 2     | 0                   | 0    | 44   | 9     | 0                    | 3    | 2    | 0     | 0                    | 0    | 5    | 1     | 20    | 200          | 829                  | 0    | 0     | 2     | 4 |
| 4:15 PM             | 0                   | 14   | 83   | 3     | 0                   | 5    | 52   | 8     | 0                    | 1    | 2    | 0     | 0                    | 7    | 3    | 15    | 193   | 895          | 2                    | 2    | 4     | 0     |   |
| 4:30 PM             | 0                   | 18   | 69   | 6     | 0                   | 0    | 52   | 5     | 0                    | 2    | 2    | 2     | 0                    | 7    | 1    | 15    | 179   | 960          | 0                    | 1    | 1     | 4     |   |
| 4:45 PM             | 0                   | 22   | 120  | 2     | 0                   | 0    | 67   | 9     | 0                    | 4    | 4    | 1     | 0                    | 3    | 3    | 22    | 257   | 1,061        | 1                    | 0    | 1     | 3     |   |
| 5:00 PM             | 0                   | 30   | 122  | 7     | 0                   | 3    | 50   | 11    | 0                    | 2    | 3    | 0     | 0                    | 12   | 5    | 21    | 266   | 1,043        | 0                    | 0    | 4     | 5     |   |
| 5:15 PM             | 1                   | 21   | 125  | 2     | 0                   | 4    | 63   | 9     | 0                    | 3    | 2    | 0     | 0                    | 7    | 1    | 20    | 258   |              | 0                    | 0    | 5     | 3     |   |
| 5:30 PM             | 0                   | 27   | 135  | 5     | 0                   | 4    | 61   | 10    | 0                    | 3    | 2    | 0     | 0                    | 9    | 2    | 22    | 280   |              | 0                    | 0    | 6     | 2     |   |
| 5:45 PM             | 0                   | 28   | 88   | 1     | 0                   | 2    | 68   | 13    | 0                    | 3    | 1    | 0     | 0                    | 9    | 6    | 20    | 239   |              | 0                    | 1    | 7     | 5     |   |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |   |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|---|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |   |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     | 0 |
| Lights             | 1         | 100  | 491  | 16    | 0         | 11   | 238  | 38    | 0          | 11   | 11   | 1     | 0          | 31   | 11   | 85    | 1,045 |   |
| Mediums            | 0         | 0    | 11   | 0     | 0         | 0    | 3    | 1     | 0          | 1    | 0    | 0     | 0          | 0    | 0    | 0     | 16    |   |
| Total              | 1         | 100  | 502  | 16    | 0         | 11   | 241  | 39    | 0          | 12   | 11   | 1     | 0          | 31   | 11   | 85    | 1,061 |   |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-002 Fair Oaks Ave & Weddell Dr  
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

| START TIME  | Fair Oaks Ave Southbound |       |       |        |           | Weddell Dr Westbound |      |       |        |           | Fair Oaks Ave Northbound |       |       |        |           | Weddell Dr Eastbound |      |       |        |           | Total  | Uturns Total |
|-------------|--------------------------|-------|-------|--------|-----------|----------------------|------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|----------------------|------|-------|--------|-----------|--------|--------------|
|             | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                 | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                 | THRU | RIGHT | UTURNS | APP.TOTAL |        |              |
| 7:00        | 4                        | 102   | 2     | 0      | 108       | 23                   | 1    | 1     | 0      | 25        | 17                       | 106   | 10    | 1      | 134       | 2                    | 0    | 24    | 0      | 26        | 293    | 1            |
| 7:15        | 1                        | 138   | 3     | 2      | 144       | 25                   | 1    | 0     | 0      | 26        | 24                       | 102   | 5     | 0      | 131       | 4                    | 0    | 46    | 0      | 50        | 351    | 2            |
| 7:30        | 1                        | 177   | 5     | 2      | 185       | 13                   | 1    | 9     | 0      | 23        | 56                       | 125   | 10    | 1      | 192       | 6                    | 1    | 68    | 0      | 75        | 475    | 3            |
| 7:45        | 4                        | 193   | 6     | 1      | 204       | 22                   | 0    | 9     | 0      | 31        | 82                       | 179   | 4     | 3      | 268       | 11                   | 0    | 97    | 0      | 108       | 611    | 4            |
| Total       | 10                       | 610   | 16    | 5      | 641       | 83                   | 3    | 19    | 0      | 105       | 179                      | 512   | 29    | 5      | 725       | 23                   | 1    | 235   | 0      | 259       | 1730   | 10           |
| 8:00        | 3                        | 182   | 26    | 2      | 213       | 24                   | 6    | 3     | 0      | 33        | 108                      | 210   | 18    | 1      | 337       | 17                   | 0    | 148   | 0      | 165       | 748    | 3            |
| 8:15        | 3                        | 167   | 11    | 0      | 181       | 13                   | 0    | 3     | 0      | 16        | 37                       | 170   | 5     | 1      | 213       | 7                    | 0    | 94    | 0      | 101       | 511    | 1            |
| 8:30        | 5                        | 182   | 4     | 1      | 192       | 24                   | 1    | 5     | 0      | 30        | 35                       | 183   | 4     | 1      | 223       | 2                    | 0    | 71    | 0      | 73        | 518    | 2            |
| 8:45        | 1                        | 171   | 3     | 2      | 177       | 23                   | 2    | 4     | 0      | 29        | 35                       | 240   | 7     | 2      | 284       | 9                    | 0    | 109   | 0      | 118       | 608    | 4            |
| Total       | 12                       | 702   | 44    | 5      | 763       | 84                   | 9    | 15    | 0      | 108       | 215                      | 803   | 34    | 5      | 1057      | 35                   | 0    | 422   | 0      | 457       | 2385   | 10           |
| 9:00        | 3                        | 151   | 0     | 0      | 154       | 16                   | 0    | 5     | 0      | 21        | 36                       | 201   | 5     | 1      | 243       | 3                    | 1    | 93    | 0      | 97        | 515    | 1            |
| 9:15        | 2                        | 152   | 3     | 2      | 159       | 9                    | 0    | 2     | 0      | 11        | 24                       | 224   | 10    | 1      | 259       | 2                    | 1    | 90    | 0      | 93        | 522    | 3            |
| 9:30        | 1                        | 148   | 1     | 1      | 151       | 12                   | 0    | 3     | 0      | 15        | 28                       | 169   | 9     | 0      | 206       | 3                    | 3    | 73    | 0      | 79        | 451    | 1            |
| 9:45        | 0                        | 136   | 4     | 2      | 142       | 19                   | 0    | 1     | 0      | 20        | 37                       | 205   | 7     | 1      | 250       | 2                    | 0    | 71    | 0      | 73        | 485    | 3            |
| Total       | 6                        | 587   | 8     | 5      | 606       | 56                   | 0    | 11    | 0      | 67        | 125                      | 799   | 31    | 3      | 958       | 10                   | 5    | 327   | 0      | 342       | 1973   | 8            |
| 16:00       | 2                        | 142   | 9     | 0      | 153       | 9                    | 3    | 2     | 0      | 14        | 52                       | 134   | 13    | 1      | 200       | 3                    | 0    | 36    | 0      | 39        | 406    | 1            |
| 16:15       | 3                        | 207   | 3     | 2      | 215       | 14                   | 1    | 1     | 0      | 16        | 52                       | 153   | 21    | 0      | 226       | 7                    | 1    | 50    | 0      | 58        | 515    | 2            |
| 16:30       | 5                        | 232   | 9     | 0      | 246       | 18                   | 0    | 7     | 0      | 25        | 48                       | 130   | 21    | 1      | 200       | 11                   | 1    | 52    | 0      | 64        | 535    | 1            |
| 16:45       | 3                        | 242   | 7     | 2      | 254       | 7                    | 0    | 4     | 0      | 11        | 49                       | 193   | 20    | 0      | 262       | 6                    | 0    | 52    | 0      | 58        | 585    | 2            |
| Total       | 13                       | 823   | 28    | 4      | 868       | 48                   | 4    | 14    | 0      | 66        | 201                      | 610   | 75    | 2      | 888       | 27                   | 2    | 190   | 0      | 219       | 2041   | 6            |
| 17:00       | 7                        | 268   | 5     | 2      | 282       | 11                   | 1    | 4     | 0      | 16        | 53                       | 176   | 23    | 1      | 253       | 11                   | 3    | 64    | 0      | 78        | 629    | 3            |
| 17:15       | 4                        | 315   | 7     | 2      | 328       | 8                    | 2    | 4     | 0      | 14        | 64                       | 224   | 24    | 2      | 314       | 5                    | 2    | 48    | 0      | 55        | 711    | 4            |
| 17:30       | 1                        | 293   | 2     | 1      | 297       | 5                    | 1    | 3     | 0      | 9         | 70                       | 229   | 20    | 1      | 320       | 6                    | 3    | 47    | 0      | 56        | 682    | 2            |
| 17:45       | 8                        | 313   | 15    | 0      | 336       | 10                   | 0    | 8     | 0      | 18        | 58                       | 245   | 19    | 1      | 323       | 5                    | 2    | 43    | 0      | 50        | 727    | 1            |
| Total       | 20                       | 1189  | 29    | 5      | 1243      | 34                   | 4    | 19    | 0      | 57        | 245                      | 874   | 86    | 5      | 1210      | 27                   | 10   | 202   | 0      | 239       | 2749   | 10           |
| 18:00       | 7                        | 257   | 4     | 3      | 271       | 8                    | 2    | 7     | 0      | 17        | 77                       | 223   | 20    | 2      | 322       | 2                    | 0    | 39    | 0      | 41        | 651    | 5            |
| 18:15       | 5                        | 241   | 9     | 2      | 257       | 13                   | 0    | 3     | 0      | 16        | 69                       | 206   | 18    | 2      | 295       | 7                    | 0    | 46    | 0      | 53        | 621    | 4            |
| 18:30       | 2                        | 234   | 11    | 1      | 248       | 8                    | 0    | 1     | 0      | 9         | 57                       | 174   | 11    | 1      | 243       | 3                    | 0    | 47    | 0      | 50        | 550    | 2            |
| 18:45       | 4                        | 170   | 9     | 2      | 185       | 17                   | 2    | 1     | 0      | 20        | 61                       | 183   | 14    | 1      | 259       | 5                    | 0    | 41    | 0      | 46        | 510    | 3            |
| Total       | 18                       | 902   | 33    | 8      | 961       | 46                   | 4    | 12    | 0      | 62        | 264                      | 786   | 63    | 6      | 1119      | 17                   | 0    | 173   | 0      | 190       | 2332   | 14           |
| Grand Total | 79                       | 4813  | 158   | 32     | 5082      | 351                  | 24   | 90    | 0      | 465       | 1229                     | 4384  | 318   | 26     | 5957      | 139                  | 18   | 1549  | 0      | 1706      | 13210  | 58           |
| Apprch %    | 1.6%                     | 94.7% | 3.1%  | 0.6%   |           | 75.5%                | 5.2% | 19.4% | 0.0%   |           | 20.6%                    | 73.6% | 5.3%  | 0.4%   |           | 8.1%                 | 1.1% | 90.8% | 0.0%   |           |        |              |
| Total %     | 0.6%                     | 36.4% | 1.2%  | 0.2%   | 38.5%     | 2.7%                 | 0.2% | 0.7%  | 0.0%   | 3.5%      | 9.3%                     | 33.2% | 2.4%  | 0.2%   | 45.1%     | 1.1%                 | 0.1% | 11.7% | 0.0%   | 12.9%     | 100.0% |              |

| AM PEAK HOUR                                      | Fair Oaks Ave Southbound |       |       |        |           | Weddell Dr Westbound |      |       |        |           | Fair Oaks Ave Northbound |       |       |        |           | Weddell Dr Eastbound |      |       |        |           | Total |
|---|--------------------------|-------|-------|--------|-----------|----------------------|------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|----------------------|------|-------|--------|-----------|-------|
| START TIME  | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                 | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                 | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 07:45 to 08:45            |                          |       |       |        |           |                      |      |       |        |           |                          |       |       |        |           |                      |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 07:45 |                          |       |       |        |           |                      |      |       |        |           |                          |       |       |        |           |                      |      |       |        |           |       |
| 7:45  | 4                        | 193   | 6     | 1      | 204       | 22                   | 0    | 9     | 0      | 31        | 82                       | 179   | 4     | 3      | 268       | 11                   | 0    | 97    | 0      | 108       | 611   |
| 8:00  | 3                        | 182   | 26    | 2      | 213       | 24                   | 6    | 3     | 0      | 33        | 108                      | 210   | 18    | 1      | 337       | 17                   | 0    | 148   | 0      | 165       | 748   |
| 8:15  | 3                        | 167   | 11    | 0      | 181       | 13                   | 0    | 3     | 0      | 16        | 37                       | 170   | 5     | 1      | 213       | 7                    | 0    | 94    | 0      | 101       | 511   |
| 8:30  | 5                        | 182   | 4     | 1      | 192       | 24                   | 1    | 5     | 0      | 30        | 35                       | 183   | 4     | 1      | 223       | 2                    | 0    | 71    | 0      | 73        | 518   |
| Total Volume                                      | 15                       | 724   | 47    | 4      | 790       | 83                   | 7    | 20    | 0      | 110       | 262                      | 742   | 31    | 6      | 1041      | 37                   | 0    | 410   | 0      | 447       | 2388  |
| % App Total                                       | 1.9%                     | 91.6% | 5.9%  | 0.5%   |           | 75.5%                | 6.4% | 18.2% | 0.0%   |           | 25.2%                    | 71.3% | 3.0%  | 0.6%   |           | 8.3%                 | 0.0% | 91.7% | 0.0%   |           |       |
| PHF   | .750                     | .938  | .452  | .500   | .927      | .865                 | .292 | .556  | .000   | .833      | .606                     | .883  | .431  | .500   | .772      | .544                 | .000 | .693  | .000   | .677      | .798  |

| PM PEAK HOUR                                      | Fair Oaks Ave Southbound |       |       |        |           | Weddell Dr Westbound |      |       |        |           | Fair Oaks Ave Northbound |       |       |        |           | Weddell Dr Eastbound |      |       |        |           | Total |
|---|--------------------------|-------|-------|--------|-----------|----------------------|------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|----------------------|------|-------|--------|-----------|-------|
| START TIME  | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                 | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                 | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                          |       |       |        |           |                      |      |       |        |           |                          |       |       |        |           |                      |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                          |       |       |        |           |                      |      |       |        |           |                          |       |       |        |           |                      |      |       |        |           |       |
| 17:15   | 4                        | 315   | 7     | 2      | 328       | 8                    | 2    | 4     | 0      | 14        | 64                       | 224   | 24    | 2      | 314       | 5                    | 2    | 48    | 0      | 55        | 711   |
| 17:30   | 1                        | 293   | 2     | 1      | 297       | 5                    | 1    | 3     | 0      | 9         | 70                       | 229   | 20    | 1      | 320       | 6                    | 3    | 47    | 0      | 56        | 682   |
| 17:45   | 8                        | 313   | 15    | 0      | 336       | 10                   | 0    | 8     | 0      | 18        | 58                       | 245   | 19    | 1      | 323       | 5                    | 2    | 43    | 0      | 50        | 727   |
| 18:00   | 7                        | 257   | 4     | 3      | 271       | 8                    | 2    | 7     | 0      | 17        | 77                       | 223   | 20    | 2      | 322       | 2                    | 0    | 39    | 0      | 41        | 651   |
| Total Volume                                      | 20                       | 1178  | 28    | 6      | 1232      | 31                   | 5    | 22    | 0      | 58        | 269                      | 921   | 83    | 6      | 1279      | 18                   | 7    | 177   | 0      | 202       | 2771  |
| % App Total                                       | 1.6%                     | 95.6% | 2.3%  | 0.5%   |           | 53.4%                | 8.6% | 37.9% | 0.0%   |           | 21.0%                    | 72.0% | 6.5%  | 0.5%   |           | 8.9%                 | 3.5% | 87.6% | 0.0%   |           |       |
| PHF   | .625                     | .935  | .467  | .500   | .917      | .775                 | .625 | .688  | .000   | .806      | .873                     | .940  | .865  | .750   | .990      | .750                 | .583 | .922  | .000   | .902      | .953  |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Utturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-002 Fair Oaks Ave & Weddell Dr  
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

| START TIME  | Fair Oaks Ave Southbound |       |       |      |           | Weddell Dr Westbound |       |       |      |           | Fair Oaks Ave Northbound |       |       |      |           | Weddell Dr Eastbound |       |       |      |           | Total  | Peds Total |
|-------------|--------------------------|-------|-------|------|-----------|----------------------|-------|-------|------|-----------|--------------------------|-------|-------|------|-----------|----------------------|-------|-------|------|-----------|--------|------------|
|             | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                 | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                 | THRU  | RIGHT | PEDS | APP.TOTAL |        |            |
| 7:00        | 0                        | 0     | 0     | 1    | 0         | 0                    | 0     | 0     | 0    | 0         | 0                        | 1     | 0     | 1    | 0         | 0                    | 0     | 0     | 0    | 0         | 1      | 2          |
| 7:15        | 0                        | 0     | 0     | 3    | 0         | 0                    | 0     | 1     | 1    | 1         | 0                        | 0     | 0     | 1    | 0         | 1                    | 0     | 0     | 1    | 1         | 2      | 6          |
| 7:30        | 0                        | 0     | 0     | 2    | 0         | 0                    | 1     | 0     | 3    | 1         | 1                        | 0     | 0     | 1    | 1         | 0                    | 7     | 0     | 0    | 7         | 9      | 6          |
| 7:45        | 0                        | 1     | 0     | 2    | 1         | 0                    | 2     | 0     | 0    | 2         | 1                        | 1     | 0     | 0    | 2         | 0                    | 4     | 0     | 0    | 4         | 9      | 2          |
| Total       | 0                        | 1     | 0     | 8    | 1         | 0                    | 3     | 1     | 4    | 4         | 2                        | 2     | 0     | 3    | 4         | 1                    | 11    | 0     | 1    | 12        | 21     | 16         |
| 8:00        | 0                        | 0     | 0     | 8    | 0         | 0                    | 3     | 1     | 0    | 4         | 0                        | 1     | 0     | 2    | 1         | 1                    | 0     | 0     | 1    | 1         | 6      | 11         |
| 8:15        | 0                        | 0     | 0     | 8    | 0         | 0                    | 0     | 0     | 1    | 0         | 0                        | 0     | 0     | 0    | 0         | 0                    | 0     | 0     | 0    | 0         | 0      | 9          |
| 8:30        | 0                        | 0     | 0     | 4    | 0         | 0                    | 2     | 1     | 3    | 3         | 0                        | 0     | 0     | 0    | 0         | 0                    | 1     | 0     | 0    | 1         | 4      | 7          |
| 8:45        | 0                        | 0     | 0     | 2    | 0         | 1                    | 0     | 0     | 0    | 1         | 0                        | 0     | 0     | 0    | 0         | 0                    | 1     | 0     | 1    | 1         | 2      | 3          |
| Total       | 0                        | 0     | 0     | 22   | 0         | 1                    | 5     | 2     | 4    | 8         | 0                        | 1     | 0     | 2    | 1         | 1                    | 2     | 0     | 2    | 3         | 12     | 30         |
| 9:00        | 0                        | 0     | 0     | 4    | 0         | 0                    | 1     | 0     | 4    | 1         | 0                        | 0     | 0     | 2    | 0         | 0                    | 0     | 0     | 0    | 0         | 1      | 10         |
| 9:15        | 0                        | 0     | 0     | 9    | 0         | 0                    | 0     | 0     | 1    | 0         | 0                        | 1     | 0     | 0    | 1         | 0                    | 0     | 0     | 0    | 0         | 1      | 10         |
| 9:30        | 0                        | 0     | 0     | 2    | 0         | 0                    | 1     | 0     | 0    | 1         | 0                        | 1     | 0     | 0    | 1         | 0                    | 0     | 0     | 0    | 0         | 2      | 2          |
| 9:45        | 1                        | 0     | 0     | 3    | 1         | 0                    | 1     | 1     | 0    | 2         | 0                        | 0     | 0     | 0    | 0         | 0                    | 0     | 0     | 0    | 0         | 3      | 3          |
| Total       | 1                        | 0     | 0     | 18   | 1         | 0                    | 3     | 1     | 5    | 4         | 0                        | 2     | 0     | 2    | 2         | 0                    | 0     | 0     | 0    | 0         | 7      | 25         |
| 16:00       | 0                        | 0     | 0     | 6    | 0         | 0                    | 2     | 0     | 3    | 2         | 0                        | 0     | 0     | 2    | 0         | 1                    | 1     | 0     | 1    | 2         | 4      | 12         |
| 16:15       | 0                        | 0     | 0     | 5    | 0         | 0                    | 0     | 0     | 1    | 0         | 1                        | 0     | 0     | 0    | 1         | 0                    | 1     | 0     | 0    | 1         | 2      | 6          |
| 16:30       | 0                        | 0     | 0     | 3    | 0         | 0                    | 0     | 0     | 0    | 0         | 0                        | 0     | 0     | 0    | 0         | 0                    | 1     | 0     | 1    | 1         | 1      | 4          |
| 16:45       | 0                        | 1     | 0     | 3    | 1         | 0                    | 0     | 0     | 3    | 0         | 0                        | 0     | 1     | 0    | 1         | 0                    | 0     | 0     | 0    | 0         | 2      | 6          |
| Total       | 0                        | 1     | 0     | 17   | 1         | 0                    | 2     | 0     | 7    | 2         | 1                        | 0     | 1     | 2    | 2         | 1                    | 3     | 0     | 2    | 4         | 9      | 28         |
| 17:00       | 2                        | 0     | 2     | 5    | 4         | 0                    | 4     | 0     | 0    | 4         | 0                        | 0     | 0     | 0    | 0         | 0                    | 7     | 0     | 0    | 7         | 15     | 5          |
| 17:15       | 0                        | 0     | 0     | 3    | 0         | 0                    | 0     | 0     | 2    | 0         | 0                        | 1     | 0     | 0    | 1         | 0                    | 1     | 0     | 0    | 1         | 2      | 5          |
| 17:30       | 0                        | 2     | 0     | 5    | 2         | 0                    | 5     | 0     | 5    | 5         | 0                        | 1     | 0     | 0    | 1         | 0                    | 1     | 0     | 0    | 1         | 9      | 10         |
| 17:45       | 1                        | 0     | 1     | 0    | 2         | 0                    | 0     | 0     | 3    | 0         | 0                        | 1     | 0     | 0    | 1         | 0                    | 3     | 0     | 0    | 3         | 6      | 3          |
| Total       | 3                        | 2     | 3     | 13   | 8         | 0                    | 9     | 0     | 10   | 9         | 0                        | 3     | 0     | 0    | 3         | 0                    | 12    | 0     | 0    | 12        | 32     | 23         |
| 18:00       | 0                        | 1     | 0     | 1    | 1         | 0                    | 0     | 0     | 0    | 0         | 0                        | 0     | 0     | 2    | 0         | 0                    | 1     | 0     | 0    | 1         | 2      | 3          |
| 18:15       | 0                        | 0     | 0     | 16   | 0         | 0                    | 1     | 0     | 4    | 1         | 0                        | 0     | 0     | 0    | 0         | 0                    | 4     | 0     | 0    | 4         | 5      | 20         |
| 18:30       | 0                        | 1     | 1     | 3    | 2         | 0                    | 3     | 0     | 2    | 3         | 0                        | 0     | 1     | 0    | 1         | 0                    | 1     | 0     | 0    | 1         | 7      | 5          |
| 18:45       | 0                        | 0     | 1     | 1    | 1         | 1                    | 1     | 0     | 2    | 2         | 0                        | 0     | 0     | 0    | 0         | 0                    | 0     | 0     | 1    | 0         | 3      | 4          |
| Total       | 0                        | 2     | 2     | 21   | 4         | 1                    | 5     | 0     | 8    | 6         | 0                        | 0     | 1     | 2    | 1         | 0                    | 6     | 0     | 1    | 6         | 17     | 32         |
| Grand Total | 4                        | 6     | 5     | 99   | 15        | 2                    | 27    | 4     | 38   | 33        | 3                        | 8     | 2     | 11   | 13        | 3                    | 34    | 0     | 6    | 37        | 98     | 154        |
| Apprch %    | 26.7%                    | 40.0% | 33.3% |      |           | 6.1%                 | 81.8% | 12.1% |      |           | 23.1%                    | 61.5% | 15.4% |      |           | 8.1%                 | 91.9% | 0.0%  |      |           |        |            |
| Total %     | 4.1%                     | 6.1%  | 5.1%  |      | 15.3%     | 2.0%                 | 27.6% | 4.1%  |      | 33.7%     | 3.1%                     | 8.2%  | 2.0%  |      | 13.3%     | 3.1%                 | 34.7% | 0.0%  |      | 37.8%     | 100.0% |            |

| AM PEAK HOUR                                      | Fair Oaks Ave Southbound |        |       |      |           | Weddell Dr Westbound |       |       |      |           | Fair Oaks Ave Northbound |       |       |      |           | Weddell Dr Eastbound |       |       |      |           | Total |
|---|--------------------------|--------|-------|------|-----------|----------------------|-------|-------|------|-----------|--------------------------|-------|-------|------|-----------|----------------------|-------|-------|------|-----------|-------|
| START TIME  | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                 | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                 | THRU  | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 07:45 to 08:45            |                          |        |       |      |           |                      |       |       |      |           |                          |       |       |      |           |                      |       |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 07:45 |                          |        |       |      |           |                      |       |       |      |           |                          |       |       |      |           |                      |       |       |      |           |       |
| 7:45  | 0                        | 1      | 0     | 2    | 1         | 0                    | 2     | 0     | 0    | 2         | 1                        | 1     | 0     | 0    | 2         | 0                    | 4     | 0     | 0    | 4         | 9     |
| 8:00  | 0                        | 0      | 0     | 8    | 0         | 0                    | 3     | 1     | 0    | 4         | 0                        | 1     | 0     | 2    | 1         | 1                    | 0     | 0     | 1    | 1         | 6     |
| 8:15  | 0                        | 0      | 0     | 8    | 0         | 0                    | 0     | 0     | 1    | 0         | 0                        | 0     | 0     | 0    | 0         | 0                    | 0     | 0     | 0    | 0         | 0     |
| 8:30  | 0                        | 0      | 0     | 4    | 0         | 0                    | 2     | 1     | 3    | 3         | 0                        | 0     | 0     | 0    | 0         | 0                    | 1     | 0     | 0    | 1         | 4     |
| Total Volume                                      | 0                        | 1      | 0     | 22   | 1         | 0                    | 7     | 2     | 4    | 9         | 1                        | 2     | 0     | 2    | 3         | 1                    | 5     | 0     | 1    | 6         | 19    |
| % App Total                                       | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                 | 77.8% | 22.2% |      |           | 33.3%                    | 66.7% | 0.0%  |      |           | 16.7%                | 83.3% | 0.0%  |      |           |       |
| PHF   | .000                     | .250   | .000  |      | .250      | .000                 | .583  | .500  |      | .563      | .250                     | .500  | .000  |      | .375      | .250                 | .313  | .000  |      | .375      | .528  |

| PM PEAK HOUR                                      | Fair Oaks Ave Southbound |       |       |      |           | Weddell Dr Westbound |        |       |      |           | Fair Oaks Ave Northbound |        |       |      |           | Weddell Dr Eastbound |        |       |      |           | Total |
|---|--------------------------|-------|-------|------|-----------|----------------------|--------|-------|------|-----------|--------------------------|--------|-------|------|-----------|----------------------|--------|-------|------|-----------|-------|
| START TIME  | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                 | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                 | THRU   | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                          |       |       |      |           |                      |        |       |      |           |                          |        |       |      |           |                      |        |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                          |       |       |      |           |                      |        |       |      |           |                          |        |       |      |           |                      |        |       |      |           |       |
| 17:15   | 0                        | 0     | 0     | 3    | 0         | 0                    | 0      | 0     | 2    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                    | 1      | 0     | 0    | 1         | 2     |
| 17:30   | 0                        | 2     | 0     | 5    | 2         | 0                    | 5      | 0     | 5    | 5         | 0                        | 1      | 0     | 0    | 1         | 0                    | 1      | 0     | 0    | 1         | 9     |
| 17:45   | 1                        | 0     | 1     | 0    | 2         | 0                    | 0      | 0     | 3    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                    | 3      | 0     | 0    | 3         | 6     |
| 18:00   | 0                        | 1     | 0     | 1    | 1         | 0                    | 0      | 0     | 0    | 0         | 0                        | 0      | 0     | 2    | 0         | 0                    | 1      | 0     | 0    | 1         | 2     |
| Total Volume                                      | 1                        | 3     | 1     | 9    | 5         | 0                    | 5      | 0     | 10   | 5         | 0                        | 3      | 0     | 2    | 3         | 0                    | 6      | 0     | 0    | 6         | 19    |
| % App Total                                       | 20.0%                    | 60.0% | 20.0% |      |           | 0.0%                 | 100.0% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                 | 100.0% | 0.0%  |      |           |       |
| PHF   | .250                     | .375  | .250  |      | .625      | .000                 | .250   | .000  |      | .250      | .000                     | .750   | .000  |      | .750      | .000                 | .500   | .000  |      | .500      | .528  |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Utturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-002 N Fair Oaks Avenue & Weddell Drive  
 Date : 12/2/2015

**Unshifted Count = All Vehicles & Utturns**

| START TIME         | N Fair Oaks Avenue Southbound |       |       |        |           | Weddell Drive Westbound |      |       |        |           | N Fair Oaks Avenue Northbound |       |       |        |           | Weddell Drive Eastbound |      |       |        |           | Total  | Utturns Total |
|--------------------|-------------------------------|-------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|-------------------------------|-------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|--------|---------------|
|                    | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL |        |               |
| 14:00              | 3                             | 149   | 5     | 2      | 159       | 15                      | 2    | 6     | 0      | 23        | 25                            | 137   | 18    | 0      | 180       | 6                       | 0    | 36    | 0      | 42        | 404    | 2             |
| 14:15              | 4                             | 135   | 3     | 2      | 144       | 13                      | 1    | 2     | 0      | 16        | 30                            | 117   | 19    | 0      | 166       | 4                       | 0    | 38    | 1      | 43        | 369    | 3             |
| 14:30              | 5                             | 146   | 4     | 4      | 159       | 18                      | 0    | 6     | 0      | 24        | 24                            | 89    | 13    | 2      | 128       | 6                       | 0    | 28    | 0      | 34        | 345    | 6             |
| 14:45              | 3                             | 139   | 6     | 0      | 148       | 18                      | 1    | 3     | 0      | 22        | 32                            | 105   | 23    | 3      | 163       | 2                       | 0    | 36    | 0      | 38        | 371    | 3             |
| <b>Total</b>       | 15                            | 569   | 18    | 8      | 610       | 64                      | 4    | 17    | 0      | 85        | 111                           | 448   | 73    | 5      | 637       | 18                      | 0    | 138   | 1      | 157       | 1489   | 14            |
| 15:00              | 5                             | 130   | 4     | 1      | 140       | 18                      | 2    | 3     | 0      | 23        | 44                            | 136   | 12    | 2      | 194       | 11                      | 1    | 59    | 0      | 71        | 428    | 3             |
| 15:15              | 4                             | 140   | 3     | 1      | 148       | 13                      | 0    | 6     | 0      | 19        | 26                            | 125   | 16    | 2      | 169       | 2                       | 1    | 29    | 0      | 32        | 368    | 3             |
| 15:30              | 2                             | 180   | 4     | 0      | 186       | 8                       | 0    | 2     | 0      | 10        | 39                            | 140   | 14    | 0      | 193       | 4                       | 0    | 58    | 0      | 62        | 451    | 0             |
| 15:45              | 4                             | 131   | 1     | 2      | 138       | 10                      | 0    | 2     | 0      | 12        | 37                            | 125   | 18    | 0      | 180       | 7                       | 0    | 41    | 0      | 48        | 378    | 2             |
| <b>Total</b>       | 15                            | 581   | 12    | 4      | 612       | 49                      | 2    | 13    | 0      | 64        | 146                           | 526   | 60    | 4      | 736       | 24                      | 2    | 187   | 0      | 213       | 1625   | 8             |
| <b>Grand Total</b> | 30                            | 1150  | 30    | 12     | 1222      | 113                     | 6    | 30    | 0      | 149       | 257                           | 974   | 133   | 9      | 1373      | 42                      | 2    | 325   | 1      | 370       | 3114   | 22            |
| Apprch %           | 2.5%                          | 94.1% | 2.5%  | 1.0%   |           | 75.8%                   | 4.0% | 20.1% | 0.0%   |           | 18.7%                         | 70.9% | 9.7%  | 0.7%   |           | 11.4%                   | 0.5% | 87.8% | 0.3%   |           |        |               |
| Total %            | 1.0%                          | 36.9% | 1.0%  | 0.4%   | 39.2%     | 3.6%                    | 0.2% | 1.0%  | 0.0%   | 4.8%      | 8.3%                          | 31.3% | 4.3%  | 0.3%   | 44.1%     | 1.3%                    | 0.1% | 10.4% | 0.0%   | 11.9%     | 100.0% |               |

| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |       |       |        |           | Weddell Drive Westbound |      |       |        |           | N Fair Oaks Avenue Northbound |       |       |        |           | Weddell Drive Eastbound |      |       |        |           | Total |
|---|-------------------------------|-------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|-------------------------------|-------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|-------|
|   | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL |       |
| Peak Hour Analysis From 15:00 to 16:00            |                               |       |       |        |           |                         |      |       |        |           |                               |       |       |        |           |                         |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 15:00 |                               |       |       |        |           |                         |      |       |        |           |                               |       |       |        |           |                         |      |       |        |           |       |
| 15:00   | 5                             | 130   | 4     | 1      | 140       | 18                      | 2    | 3     | 0      | 23        | 44                            | 136   | 12    | 2      | 194       | 11                      | 1    | 59    | 0      | 71        | 428   |
| 15:15   | 4                             | 140   | 3     | 1      | 148       | 13                      | 0    | 6     | 0      | 19        | 26                            | 125   | 16    | 2      | 169       | 2                       | 1    | 29    | 0      | 32        | 368   |
| 15:30   | 2                             | 180   | 4     | 0      | 186       | 8                       | 0    | 2     | 0      | 10        | 39                            | 140   | 14    | 0      | 193       | 4                       | 0    | 58    | 0      | 62        | 451   |
| 15:45   | 4                             | 131   | 1     | 2      | 138       | 10                      | 0    | 2     | 0      | 12        | 37                            | 125   | 18    | 0      | 180       | 7                       | 0    | 41    | 0      | 48        | 378   |
| Total Volume                                      | 15                            | 581   | 12    | 4      | 612       | 49                      | 2    | 13    | 0      | 64        | 146                           | 526   | 60    | 4      | 736       | 24                      | 2    | 187   | 0      | 213       | 1625  |
| % App Total                                       | 2.5%                          | 94.9% | 2.0%  | 0.7%   |           | 76.6%                   | 3.1% | 20.3% | 0.0%   |           | 19.8%                         | 71.5% | 8.2%  | 0.5%   |           | 11.3%                   | 0.9% | 87.8% | 0.0%   |           |       |
| PHF   | .750                          | .807  | .750  | .500   | .823      | .681                    | .250 | .542  | .000   | .696      | .830                          | .939  | .833  | .500   | .948      | .545                    | .500 | .792  | .000   | .750      | .901  |



### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-002 N Fair Oaks Avenue & Weddell Drive  
 Date : 12/2/2015

**Bank 1 Count = Bikes & Peds**

| START TIME         | N Fair Oaks Avenue Southbound |       |       |      |           | Weddell Drive Westbound |       |       |      |           | N Fair Oaks Avenue Northbound |       |       |      |           | Weddell Drive Eastbound |        |       |      |           | Total  | Peds Total |
|--------------------|-------------------------------|-------|-------|------|-----------|-------------------------|-------|-------|------|-----------|-------------------------------|-------|-------|------|-----------|-------------------------|--------|-------|------|-----------|--------|------------|
|                    | LEFT                          | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL |        |            |
| 14:00              | 0                             | 0     | 0     | 1    | 0         | 0                       | 0     | 0     | 0    | 0         | 0                             | 0     | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 1      | 1          |
| 14:15              | 0                             | 0     | 0     | 1    | 0         | 0                       | 0     | 0     | 0    | 0         | 0                             | 0     | 0     | 0    | 0         | 0                       | 0      | 0     | 1    | 0         | 0      | 2          |
| 14:30              | 0                             | 0     | 0     | 2    | 0         | 0                       | 2     | 0     | 1    | 2         | 0                             | 0     | 0     | 0    | 0         | 0                       | 0      | 0     | 1    | 0         | 2      | 4          |
| 14:45              | 0                             | 0     | 0     | 2    | 0         | 0                       | 1     | 0     | 2    | 1         | 0                             | 0     | 0     | 0    | 0         | 0                       | 0      | 0     | 0    | 0         | 1      | 4          |
| <b>Total</b>       | 0                             | 0     | 0     | 6    | 0         | 0                       | 3     | 0     | 3    | 3         | 0                             | 0     | 0     | 0    | 0         | 0                       | 1      | 0     | 2    | 1         | 4      | 11         |
| 15:00              | 0                             | 0     | 0     | 1    | 0         | 0                       | 0     | 1     | 0    | 1         | 0                             | 0     | 1     | 0    | 1         | 0                       | 0      | 0     | 0    | 0         | 2      | 1          |
| 15:15              | 1                             | 1     | 0     | 2    | 2         | 0                       | 2     | 0     | 1    | 2         | 0                             | 0     | 0     | 0    | 0         | 0                       | 0      | 0     | 0    | 0         | 4      | 3          |
| 15:30              | 0                             | 0     | 0     | 1    | 0         | 0                       | 0     | 0     | 1    | 0         | 0                             | 0     | 0     | 0    | 0         | 0                       | 0      | 0     | 0    | 0         | 0      | 2          |
| 15:45              | 0                             | 1     | 0     | 2    | 1         | 0                       | 1     | 0     | 2    | 1         | 0                             | 1     | 0     | 0    | 1         | 0                       | 2      | 0     | 0    | 2         | 5      | 4          |
| <b>Total</b>       | 1                             | 2     | 0     | 6    | 3         | 0                       | 3     | 1     | 4    | 4         | 0                             | 1     | 1     | 0    | 2         | 0                       | 2      | 0     | 0    | 2         | 11     | 10         |
| <b>Grand Total</b> | 1                             | 2     | 0     | 12   | 3         | 0                       | 6     | 1     | 7    | 7         | 0                             | 1     | 1     | 0    | 2         | 0                       | 3      | 0     | 2    | 3         | 15     | 21         |
| Apprch %           | 33.3%                         | 66.7% | 0.0%  |      |           | 0.0%                    | 85.7% | 14.3% |      |           | 0.0%                          | 50.0% | 50.0% |      |           | 0.0%                    | 100.0% | 0.0%  |      |           |        |            |
| Total %            | 6.7%                          | 13.3% | 0.0%  |      | 20.0%     | 0.0%                    | 40.0% | 6.7%  |      | 46.7%     | 0.0%                          | 6.7%  | 6.7%  |      | 13.3%     | 0.0%                    | 20.0%  | 0.0%  |      | 20.0%     | 100.0% |            |

| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |       |       |      |           | Weddell Drive Westbound |       |       |      |           | N Fair Oaks Avenue Northbound |       |       |      |           | Weddell Drive Eastbound |        |       |      |           | Total |
|---|-------------------------------|-------|-------|------|-----------|-------------------------|-------|-------|------|-----------|-------------------------------|-------|-------|------|-----------|-------------------------|--------|-------|------|-----------|-------|
|   | LEFT                          | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL |       |
| Peak Hour Analysis From 15:00 to 16:00            |                               |       |       |      |           |                         |       |       |      |           |                               |       |       |      |           |                         |        |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 15:00 |                               |       |       |      |           |                         |       |       |      |           |                               |       |       |      |           |                         |        |       |      |           |       |
| 15:00   | 0                             | 0     | 0     | 1    | 0         | 0                       | 0     | 1     | 0    | 1         | 0                             | 0     | 1     | 0    | 1         | 0                       | 0      | 0     | 0    | 0         | 2     |
| 15:15   | 1                             | 1     | 0     | 2    | 2         | 0                       | 2     | 0     | 1    | 2         | 0                             | 0     | 0     | 0    | 0         | 0                       | 0      | 0     | 0    | 0         | 4     |
| 15:30   | 0                             | 0     | 0     | 1    | 0         | 0                       | 0     | 0     | 1    | 0         | 0                             | 0     | 0     | 0    | 0         | 0                       | 0      | 0     | 0    | 0         | 0     |
| 15:45   | 0                             | 1     | 0     | 2    | 1         | 0                       | 1     | 0     | 2    | 1         | 0                             | 1     | 0     | 0    | 1         | 0                       | 2      | 0     | 0    | 2         | 5     |
| <b>Total Volume</b>                               | 1                             | 2     | 0     | 6    | 3         | 0                       | 3     | 1     | 4    | 4         | 0                             | 1     | 1     | 0    | 2         | 0                       | 2      | 0     | 0    | 2         | 11    |
| <b>% App Total</b>                                | 33.3%                         | 66.7% | 0.0%  |      |           | 0.0%                    | 75.0% | 25.0% |      |           | 0.0%                          | 50.0% | 50.0% |      |           | 0.0%                    | 100.0% | 0.0%  |      |           |       |
| PHF   | .250                          | .500  | .000  |      | .375      | .000                    | .375  | .250  |      | .500      | .000                          | .250  | .250  |      | .500      | .000                    | .250   | .000  |      | .250      | .550  |



National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-003 Fair Oaks Ave & US 101 NB ramps  
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

| START TIME  | Fair Oaks Ave Southbound |        |       |      |           | US 101 NB ramps Westbound |      |       |      |           | Fair Oaks Ave Northbound |        |       |      |           | US 101 NB ramps Eastbound |      |       |      |           | Total | Peds Total |
|-------------|--------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|--------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|-------|------------|
|             | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL |       |            |
| 7:00        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     | 1          |
| 7:15        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 2    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 2          |
| 7:30        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 1          |
| 7:45        | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 0                        | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 0    | 0         | 0     | 3          |
| Total       | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 4    | 0         | 0                        | 3      | 0     | 0    | 3         | 0                         | 0    | 0     | 0    | 0         | 4     | 4          |
| 8:00        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     | 0          |
| 8:15        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 0          |
| 8:30        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 2    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 2          |
| 8:45        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 1          |
| Total       | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 3    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     | 3          |
| 9:00        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 2    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 2          |
| 9:15        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     | 1          |
| 9:30        | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 1    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 2     | 1          |
| 9:45        | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 1          |
| Total       | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 5    | 0         | 0                        | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 0    | 0         | 3     | 5          |
| 16:00       | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 4    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 4          |
| 16:15       | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 3    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     | 3          |
| 16:30       | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 1          |
| 16:45       | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 3    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 2     | 3          |
| Total       | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 11   | 0         | 0                        | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 0    | 0         | 3     | 11         |
| 17:00       | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 1          |
| 17:15       | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 2    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     | 2          |
| 17:30       | 0                        | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 4    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 3     | 4          |
| 17:45       | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 4    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     | 4          |
| Total       | 0                        | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 11   | 0         | 0                        | 3      | 0     | 0    | 3         | 0                         | 0    | 0     | 0    | 0         | 5     | 11         |
| 18:00       | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 2    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 1     | 2          |
| 18:15       | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 7    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     | 7          |
| 18:30       | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 2    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 1     | 2          |
| 18:45       | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 4    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 1     | 4          |
| Total       | 0                        | 3      | 0     | 0    | 3         | 0                         | 0    | 0     | 15   | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 4     | 15         |
| Grand Total | 0                        | 8      | 0     | 0    | 8         | 0                         | 0    | 0     | 49   | 0         | 0                        | 12     | 0     | 0    | 12        | 0                         | 0    | 0     | 0    | 0         | 20    | 49         |
| Apprch %    | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                      | 0.0% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      | 0.0%      | 0.0%                      | 0.0% |       |      |           |       |            |
| Total %     | 0.0%                     | 40.0%  | 0.0%  |      | 40.0%     | 0.0%                      | 0.0% | 0.0%  |      | 0.0%      | 0.0%                     | 60.0%  | 0.0%  |      | 60.0%     | 0.0%                      | 0.0% |       | 0.0% | 100.0%    |       |            |

| AM PEAK HOUR                                      | Fair Oaks Ave Southbound |        |       |      |           | US 101 NB ramps Westbound |      |       |      |           | Fair Oaks Ave Northbound |        |       |      |           | US 101 NB ramps Eastbound |      |       |      |           | Total |
|---|--------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|--------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|-------|
| START TIME  | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 07:45 to 08:45            |                          |        |       |      |           |                           |      |       |      |           |                          |        |       |      |           |                           |      |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 07:45 |                          |        |       |      |           |                           |      |       |      |           |                          |        |       |      |           |                           |      |       |      |           |       |
| 7:45  | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 0                        | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 0    | 0         | 3     |
| 8:00  | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     |
| 8:15  | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     |
| 8:30  | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 2    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     |
| Total Volume                                      | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 2    | 0         | 0                        | 3      | 0     | 0    | 3         | 0                         | 0    | 0     | 0    | 0         | 4     |
| % App Total                                       | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                      | 0.0% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      | 0.0%      | 0.0%                      | 0.0% |       |      |           |       |
| PHF   | .000                     | .250   | .000  |      | .250      | .000                      | .000 | .000  |      | .000      | .000                     | .375   | .000  |      | .375      | .000                      | .000 | .000  |      | .000      | .333  |

| PM PEAK HOUR                                      | Fair Oaks Ave Southbound |        |       |      |           | US 101 NB ramps Westbound |      |       |      |           | Fair Oaks Ave Northbound |        |       |      |           | US 101 NB ramps Eastbound |      |       |      |           | Total |
|---|--------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|--------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|-------|
| START TIME  | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                          |        |       |      |           |                           |      |       |      |           |                          |        |       |      |           |                           |      |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                          |        |       |      |           |                           |      |       |      |           |                          |        |       |      |           |                           |      |       |      |           |       |
| 17:15   | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 2    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     |
| 17:30   | 0                        | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 4    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 3     |
| 17:45   | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 4    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1     |
| 18:00   | 0                        | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 2    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 1     |
| Total Volume                                      | 0                        | 3      | 0     | 0    | 3         | 0                         | 0    | 0     | 12   | 0         | 0                        | 3      | 0     | 0    | 3         | 0                         | 0    | 0     | 0    | 0         | 6     |
| % App Total                                       | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                      | 0.0% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      | 0.0%      | 0.0%                      | 0.0% |       |      |           |       |
| PHF   | .000                     | .375   | .000  |      | .375      | .000                      | .000 | .000  |      | .000      | .000                     | .750   | .000  |      | .750      | .000                      | .000 | .000  |      | .000      | .500  |



### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Turns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-003 N Fair Oaks Avenue & US-101 NB Ramps  
 Date : 12/2/2015

**Bank 1 Count = Bikes & Peds**

| START TIME         | N Fair Oaks Avenue Southbound |        |       |      |           | US-101 NB Ramps Westbound |      |       |      |           | N Fair Oaks Avenue Northbound |        |       |      |           | US-101 NB Ramps Eastbound |      |       |      |           | Total  | Peds Total |
|--------------------|-------------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|-------------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|--------|------------|
|                    | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL |        |            |
| 14:00              | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0      | 0          |
| 14:15              | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0      | 1          |
| 14:30              | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0      | 1          |
| 14:45              | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 2    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0      | 2          |
| <b>Total</b>       | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 4    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0      | 4          |
| 15:00              | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0                             | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 1      | 0          |
| 15:15              | 0                             | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 1      | 1          |
| 15:30              | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0      | 1          |
| 15:45              | 0                             | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 2    | 0         | 0                             | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 2      | 2          |
| <b>Total</b>       | 0                             | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 4    | 0         | 0                             | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 0    | 0         | 4      | 4          |
| <b>Grand Total</b> | 0                             | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 8    | 0         | 0                             | 2      | 0     | 0    | 2         | 0                         | 0    | 0     | 0    | 0         | 4      | 8          |
| Apprch %           | 0.0%                          | 100.0% | 0.0%  |      |           | 0.0%                      | 0.0% | 0.0%  |      |           | 0.0%                          | 100.0% | 0.0%  |      |           | 0.0%                      | 0.0% | 0.0%  |      |           |        |            |
| Total %            | 0.0%                          | 50.0%  | 0.0%  |      | 50.0%     | 0.0%                      | 0.0% | 0.0%  |      | 0.0%      | 0.0%                          | 50.0%  | 0.0%  |      | 50.0%     | 0.0%                      | 0.0% | 0.0%  |      | 0.0%      | 100.0% |            |

| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |        |       |      |           | US-101 NB Ramps Westbound |      |       |      |           | N Fair Oaks Avenue Northbound |        |       |      |           | US-101 NB Ramps Eastbound |      |       |      |           | Total |   |
|---|-------------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|-------------------------------|--------|-------|------|-----------|---------------------------|------|-------|------|-----------|-------|---|
|   | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU | RIGHT | PEDS | APP.TOTAL |       |   |
| Peak Hour Analysis From 14:45 to 15:45            |                               |        |       |      |           |                           |      |       |      |           |                               |        |       |      |           |                           |      |       |      |           |       |   |
| Peak Hour For Entire Intersection Begins at 14:45 |                               |        |       |      |           |                           |      |       |      |           |                               |        |       |      |           |                           |      |       |      |           |       |   |
| 14:45   | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 2    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 0 |
| 15:00   | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0                             | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 0     | 1 |
| 15:15   | 0                             | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 1 |
| 15:30   | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                         | 0    | 0     | 0    | 0         | 0     | 0 |
| <b>Total Volume</b>                               | 0                             | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 4    | 0         | 0                             | 1      | 0     | 0    | 1         | 0                         | 0    | 0     | 0    | 0         | 0     | 2 |
| <b>% App Total</b>                                | 0.0%                          | 100.0% | 0.0%  |      |           | 0.0%                      | 0.0% | 0.0%  |      |           | 0.0%                          | 100.0% | 0.0%  |      |           | 0.0%                      | 0.0% | 0.0%  |      |           |       |   |
| PHF   | .000                          | .250   | .000  |      | .250      | .000                      | .000 | .000  |      | .000      | .000                          | .250   | .000  |      | .250      | .000                      | .000 | .000  |      | .000      | .500  |   |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
[info@ndsdata.com](mailto:info@ndsdata.com)

File Name : 17-7255-004 Fair Oaks Ave & Ahwanee Ave  
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

| START TIME  | Fair Oaks Ave Southbound |       |       |        |           | Ahwanee Ave Westbound |       |       |        |           | Fair Oaks Ave Northbound |       |       |        |           | Ahwanee Ave Eastbound |       |       |        |           | Total  | Uturns Total |
|-------------|--------------------------|-------|-------|--------|-----------|-----------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-----------------------|-------|-------|--------|-----------|--------|--------------|
|             | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                  | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                  | THRU  | RIGHT | UTURNS | APP.TOTAL |        |              |
| 7:00        | 2                        | 141   | 27    | 0      | 170       | 3                     | 4     | 24    | 0      | 31        | 5                        | 156   | 0     | 0      | 161       | 21                    | 0     | 17    | 0      | 38        | 400    | 0            |
| 7:15        | 10                       | 238   | 23    | 1      | 272       | 1                     | 5     | 38    | 0      | 44        | 14                       | 208   | 3     | 0      | 225       | 30                    | 1     | 12    | 0      | 43        | 584    | 1            |
| 7:30        | 9                        | 254   | 86    | 0      | 349       | 6                     | 12    | 52    | 0      | 70        | 13                       | 282   | 4     | 0      | 299       | 71                    | 3     | 8     | 0      | 82        | 800    | 0            |
| 7:45        | 10                       | 203   | 104   | 0      | 317       | 8                     | 28    | 63    | 0      | 99        | 23                       | 389   | 6     | 0      | 418       | 67                    | 11    | 17    | 0      | 95        | 929    | 0            |
| Total       | 31                       | 836   | 240   | 1      | 1108      | 18                    | 49    | 177   | 0      | 244       | 55                       | 1035  | 13    | 0      | 1103      | 189                   | 15    | 54    | 0      | 258       | 2713   | 1            |
| 8:00        | 4                        | 186   | 60    | 0      | 250       | 14                    | 21    | 72    | 0      | 107       | 11                       | 331   | 7     | 0      | 349       | 53                    | 6     | 16    | 0      | 75        | 781    | 0            |
| 8:15        | 9                        | 158   | 44    | 0      | 211       | 7                     | 8     | 42    | 0      | 57        | 13                       | 309   | 7     | 0      | 329       | 38                    | 6     | 14    | 0      | 58        | 655    | 0            |
| 8:30        | 3                        | 154   | 37    | 0      | 194       | 8                     | 15    | 53    | 0      | 76        | 14                       | 380   | 0     | 0      | 394       | 47                    | 4     | 7     | 0      | 58        | 722    | 0            |
| 8:45        | 5                        | 187   | 21    | 0      | 213       | 6                     | 5     | 45    | 0      | 56        | 9                        | 371   | 5     | 0      | 385       | 26                    | 0     | 10    | 0      | 36        | 690    | 0            |
| Total       | 21                       | 685   | 162   | 0      | 868       | 35                    | 49    | 212   | 0      | 296       | 47                       | 1391  | 19    | 0      | 1457      | 164                   | 16    | 47    | 0      | 227       | 2848   | 0            |
| 9:00        | 2                        | 157   | 17    | 0      | 176       | 5                     | 6     | 33    | 0      | 44        | 6                        | 367   | 1     | 0      | 374       | 23                    | 1     | 8     | 0      | 32        | 626    | 0            |
| 9:15        | 4                        | 175   | 13    | 0      | 192       | 4                     | 5     | 31    | 0      | 40        | 7                        | 360   | 3     | 0      | 370       | 16                    | 1     | 11    | 0      | 28        | 630    | 0            |
| 9:30        | 2                        | 160   | 13    | 0      | 175       | 7                     | 3     | 36    | 0      | 46        | 13                       | 358   | 4     | 0      | 375       | 30                    | 3     | 10    | 0      | 43        | 639    | 0            |
| 9:45        | 8                        | 164   | 15    | 0      | 187       | 10                    | 5     | 31    | 0      | 46        | 7                        | 307   | 4     | 0      | 318       | 25                    | 0     | 11    | 0      | 36        | 587    | 0            |
| Total       | 16                       | 656   | 58    | 0      | 730       | 26                    | 19    | 131   | 0      | 176       | 33                       | 1392  | 12    | 0      | 1437      | 94                    | 5     | 40    | 0      | 139       | 2482   | 0            |
| 16:00       | 17                       | 318   | 43    | 0      | 378       | 6                     | 0     | 12    | 0      | 18        | 14                       | 181   | 7     | 0      | 202       | 20                    | 4     | 16    | 0      | 40        | 638    | 0            |
| 16:15       | 11                       | 357   | 37    | 0      | 405       | 3                     | 5     | 9     | 0      | 17        | 4                        | 178   | 6     | 0      | 188       | 27                    | 3     | 5     | 0      | 35        | 645    | 0            |
| 16:30       | 29                       | 392   | 58    | 0      | 479       | 4                     | 5     | 8     | 0      | 17        | 12                       | 192   | 7     | 0      | 211       | 32                    | 5     | 22    | 0      | 59        | 766    | 0            |
| 16:45       | 25                       | 436   | 52    | 0      | 513       | 2                     | 1     | 12    | 0      | 15        | 11                       | 181   | 5     | 0      | 197       | 25                    | 8     | 15    | 0      | 48        | 773    | 0            |
| Total       | 82                       | 1503  | 190   | 0      | 1775      | 15                    | 11    | 41    | 0      | 67        | 41                       | 732   | 25    | 0      | 798       | 104                   | 20    | 58    | 0      | 182       | 2822   | 0            |
| 17:00       | 12                       | 507   | 54    | 0      | 573       | 5                     | 4     | 10    | 0      | 19        | 8                        | 190   | 4     | 0      | 202       | 29                    | 8     | 19    | 0      | 56        | 850    | 0            |
| 17:15       | 18                       | 589   | 56    | 0      | 663       | 4                     | 3     | 6     | 0      | 13        | 13                       | 211   | 8     | 0      | 232       | 30                    | 14    | 29    | 0      | 73        | 981    | 0            |
| 17:30       | 18                       | 623   | 67    | 0      | 708       | 9                     | 6     | 18    | 0      | 33        | 7                        | 205   | 10    | 0      | 222       | 17                    | 14    | 19    | 0      | 50        | 1013   | 0            |
| 17:45       | 16                       | 611   | 73    | 0      | 700       | 8                     | 8     | 14    | 0      | 30        | 15                       | 215   | 7     | 0      | 237       | 28                    | 8     | 17    | 0      | 53        | 1020   | 0            |
| Total       | 64                       | 2330  | 250   | 0      | 2644      | 26                    | 21    | 48    | 0      | 95        | 43                       | 821   | 29    | 0      | 893       | 104                   | 44    | 84    | 0      | 232       | 3864   | 0            |
| 18:00       | 26                       | 536   | 48    | 0      | 610       | 4                     | 9     | 9     | 0      | 22        | 19                       | 231   | 13    | 0      | 263       | 28                    | 8     | 22    | 0      | 58        | 953    | 0            |
| 18:15       | 23                       | 523   | 55    | 0      | 601       | 6                     | 4     | 16    | 0      | 26        | 18                       | 189   | 9     | 0      | 216       | 23                    | 4     | 22    | 0      | 49        | 892    | 0            |
| 18:30       | 24                       | 480   | 31    | 0      | 535       | 4                     | 4     | 13    | 0      | 21        | 13                       | 222   | 12    | 0      | 247       | 21                    | 8     | 22    | 0      | 51        | 854    | 0            |
| 18:45       | 17                       | 423   | 37    | 0      | 477       | 5                     | 5     | 13    | 0      | 23        | 16                       | 210   | 9     | 0      | 235       | 24                    | 7     | 16    | 0      | 47        | 782    | 0            |
| Total       | 90                       | 1962  | 171   | 0      | 2223      | 19                    | 22    | 51    | 0      | 92        | 66                       | 852   | 43    | 0      | 961       | 96                    | 27    | 82    | 0      | 205       | 3481   | 0            |
| Grand Total | 304                      | 7972  | 1071  | 1      | 9348      | 139                   | 171   | 660   | 0      | 970       | 285                      | 6223  | 141   | 0      | 6649      | 751                   | 127   | 365   | 0      | 1243      | 18210  | 1            |
| Apprch %    | 3.3%                     | 85.3% | 11.5% | 0.0%   |           | 14.3%                 | 17.6% | 68.0% | 0.0%   |           | 4.3%                     | 93.6% | 2.1%  | 0.0%   |           | 60.4%                 | 10.2% | 29.4% | 0.0%   |           |        |              |
| Total %     | 1.7%                     | 43.8% | 5.9%  | 0.0%   | 51.3%     | 0.8%                  | 0.9%  | 3.6%  | 0.0%   | 5.3%      | 1.6%                     | 34.2% | 0.8%  | 0.0%   | 36.5%     | 4.1%                  | 0.7%  | 2.0%  | 0.0%   | 6.8%      | 100.0% |              |

| AM PEAK HOUR                                      | Fair Oaks Ave Southbound |       |       |        |           | Ahwanee Ave Westbound |       |       |        |           | Fair Oaks Ave Northbound |       |       |        |           | Ahwanee Ave Eastbound |      |       |        |           | Total |
|---|--------------------------|-------|-------|--------|-----------|-----------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-----------------------|------|-------|--------|-----------|-------|
| START TIME  | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                  | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                  | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 07:30 to 08:30            |                          |       |       |        |           |                       |       |       |        |           |                          |       |       |        |           |                       |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 07:30 |                          |       |       |        |           |                       |       |       |        |           |                          |       |       |        |           |                       |      |       |        |           |       |
| 7:30  | 9                        | 254   | 86    | 0      | 349       | 6                     | 12    | 52    | 0      | 70        | 13                       | 282   | 4     | 0      | 299       | 71                    | 3    | 8     | 0      | 82        | 800   |
| 7:45  | 10                       | 203   | 104   | 0      | 317       | 8                     | 28    | 63    | 0      | 99        | 23                       | 389   | 6     | 0      | 418       | 67                    | 11   | 17    | 0      | 95        | 929   |
| 8:00  | 4                        | 186   | 60    | 0      | 250       | 14                    | 21    | 72    | 0      | 107       | 11                       | 331   | 7     | 0      | 349       | 53                    | 6    | 16    | 0      | 75        | 781   |
| 8:15  | 9                        | 158   | 44    | 0      | 211       | 7                     | 8     | 42    | 0      | 57        | 13                       | 309   | 7     | 0      | 329       | 38                    | 6    | 14    | 0      | 58        | 655   |
| Total Volume                                      | 32                       | 801   | 294   | 0      | 1127      | 35                    | 69    | 229   | 0      | 333       | 60                       | 1311  | 24    | 0      | 1395      | 229                   | 26   | 55    | 0      | 310       | 3165  |
| % App Total                                       | 2.8%                     | 71.1% | 26.1% | 0.0%   |           | 10.5%                 | 20.7% | 68.8% | 0.0%   |           | 4.3%                     | 94.0% | 1.7%  | 0.0%   |           | 73.9%                 | 8.4% | 17.7% | 0.0%   |           |       |
| PHF   | .800                     | .788  | .707  | .000   | .807      | .625                  | .616  | .795  | .000   | .778      | .652                     | .843  | .857  | .000   | .834      | .806                  | .591 | .809  | .000   | .816      | .852  |

| PM PEAK HOUR                                      | Fair Oaks Ave Southbound |       |       |        |           | Ahwanee Ave Westbound |       |       |        |           | Fair Oaks Ave Northbound |       |       |        |           | Ahwanee Ave Eastbound |       |       |        |           | Total |
|---|--------------------------|-------|-------|--------|-----------|-----------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-----------------------|-------|-------|--------|-----------|-------|
| START TIME  | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                  | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                  | THRU  | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                          |       |       |        |           |                       |       |       |        |           |                          |       |       |        |           |                       |       |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                          |       |       |        |           |                       |       |       |        |           |                          |       |       |        |           |                       |       |       |        |           |       |
| 17:15   | 18                       | 589   | 56    | 0      | 663       | 4                     | 3     | 6     | 0      | 13        | 13                       | 211   | 8     | 0      | 232       | 30                    | 14    | 29    | 0      | 73        | 981   |
| 17:30   | 18                       | 623   | 67    | 0      | 708       | 9                     | 6     | 18    | 0      | 33        | 7                        | 205   | 10    | 0      | 222       | 17                    | 14    | 19    | 0      | 50        | 1013  |
| 17:45   | 16                       | 611   | 73    | 0      | 700       | 8                     | 8     | 14    | 0      | 30        | 15                       | 215   | 7     | 0      | 237       | 28                    | 8     | 17    | 0      | 53        | 1020  |
| 18:00   | 26                       | 536   | 48    | 0      | 610       | 4                     | 9     | 9     | 0      | 22        | 19                       | 231   | 13    | 0      | 263       | 28                    | 8     | 22    | 0      | 58        | 953   |
| Total Volume                                      | 78                       | 2359  | 244   | 0      | 2681      | 25                    | 26    | 47    | 0      | 98        | 54                       | 862   | 38    | 0      | 954       | 103                   | 44    | 87    | 0      | 234       | 3967  |
| % App Total                                       | 2.9%                     | 88.0% | 9.1%  | 0.0%   |           | 25.5%                 | 26.5% | 48.0% | 0.0%   |           | 5.7%                     | 90.4% | 4.0%  | 0.0%   |           | 44.0%                 | 18.8% | 37.2% | 0.0%   |           |       |
| PHF   | .750                     | .947  | .836  | .000   | .947      | .694                  | .722  | .653  | .000   | .742      | .711                     | .933  | .731  | .000   | .907      | .858                  | .786  | .750  | .000   | .801      | .972  |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Utturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-004 Fair Oaks Ave & Ahwanee Ave  
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

| START TIME         | Fair Oaks Ave Southbound |       |       |      |           | Ahwanee Ave Westbound |        |       |      |           | Fair Oaks Ave Northbound |       |       |      |           | Ahwanee Ave Eastbound |       |       |      |           | Total  | Peds Total |     |
|--------------------|--------------------------|-------|-------|------|-----------|-----------------------|--------|-------|------|-----------|--------------------------|-------|-------|------|-----------|-----------------------|-------|-------|------|-----------|--------|------------|-----|
|                    | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                  | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                  | THRU  | RIGHT | PEDS | APP.TOTAL |        |            |     |
| 7:00               | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 0    | 0         | 0                        | 1     | 0     | 3    | 1         | 0                     | 0     | 0     | 0    | 0         | 0      | 1          | 3   |
| 7:15               | 0                        | 0     | 0     | 0    | 0         | 0                     | 4      | 0     | 3    | 4         | 0                        | 0     | 0     | 2    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 4          | 5   |
| 7:30               | 0                        | 0     | 0     | 0    | 0         | 0                     | 2      | 0     | 2    | 2         | 0                        | 0     | 0     | 9    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 2          | 11  |
| 7:45               | 0                        | 1     | 0     | 0    | 1         | 0                     | 0      | 0     | 0    | 0         | 0                        | 2     | 0     | 4    | 2         | 0                     | 0     | 0     | 0    | 0         | 0      | 3          | 4   |
| <b>Total</b>       | 0                        | 1     | 0     | 0    | 1         | 0                     | 6      | 0     | 5    | 6         | 0                        | 3     | 0     | 18   | 3         | 0                     | 0     | 0     | 0    | 0         | 0      | 10         | 23  |
| 8:00               | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 0    | 0         | 0                        | 1     | 0     | 5    | 1         | 0                     | 0     | 0     | 0    | 0         | 0      | 1          | 5   |
| 8:15               | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 1    | 0         | 1                        | 0     | 0     | 1    | 1         | 0                     | 0     | 1     | 0    | 1         | 0      | 2          | 2   |
| 8:30               | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 2    | 0         | 0                        | 0     | 0     | 0    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 0          | 2   |
| 8:45               | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 3    | 0         | 0                        | 0     | 0     | 0    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 0          | 3   |
| <b>Total</b>       | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 6    | 0         | 1                        | 1     | 0     | 6    | 2         | 0                     | 0     | 1     | 0    | 1         | 0      | 3          | 12  |
| 9:00               | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 0    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 0          | 0   |
| 9:15               | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 1    | 0         | 0                        | 1     | 0     | 0    | 1         | 0                     | 0     | 0     | 0    | 0         | 0      | 1          | 1   |
| 9:30               | 0                        | 1     | 0     | 0    | 1         | 0                     | 0      | 0     | 4    | 0         | 0                        | 1     | 0     | 1    | 1         | 0                     | 1     | 0     | 0    | 1         | 0      | 3          | 5   |
| 9:45               | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 1    | 0         | 0                        | 0     | 0     | 1    | 0         | 0                     | 1     | 0     | 0    | 1         | 0      | 1          | 2   |
| <b>Total</b>       | 0                        | 1     | 0     | 0    | 1         | 0                     | 0      | 0     | 6    | 0         | 0                        | 2     | 0     | 2    | 2         | 0                     | 2     | 0     | 0    | 2         | 0      | 5          | 8   |
| 16:00              | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 1    | 0         | 0                        | 0     | 0     | 6    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 0          | 7   |
| 16:15              | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 1    | 0         | 0                        | 1     | 0     | 2    | 1         | 0                     | 0     | 0     | 0    | 0         | 0      | 1          | 3   |
| 16:30              | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 5    | 0         | 0                        | 0     | 0     | 6    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 0          | 11  |
| 16:45              | 0                        | 0     | 0     | 0    | 0         | 0                     | 2      | 0     | 1    | 2         | 0                        | 1     | 0     | 2    | 1         | 0                     | 1     | 0     | 0    | 1         | 0      | 4          | 3   |
| <b>Total</b>       | 0                        | 0     | 0     | 0    | 0         | 0                     | 2      | 0     | 8    | 2         | 0                        | 2     | 0     | 16   | 2         | 0                     | 1     | 0     | 0    | 1         | 0      | 5          | 24  |
| 17:00              | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 0    | 0         | 0                        | 1     | 0     | 4    | 1         | 0                     | 0     | 0     | 0    | 0         | 0      | 1          | 4   |
| 17:15              | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 0    | 0         | 0                        | 1     | 0     | 3    | 1         | 0                     | 1     | 0     | 0    | 1         | 0      | 2          | 3   |
| 17:30              | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 2    | 0         | 0                        | 1     | 0     | 3    | 1         | 0                     | 0     | 0     | 0    | 0         | 0      | 1          | 5   |
| 17:45              | 0                        | 0     | 1     | 0    | 1         | 0                     | 2      | 0     | 2    | 2         | 0                        | 0     | 0     | 6    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 3          | 8   |
| <b>Total</b>       | 0                        | 0     | 1     | 0    | 1         | 0                     | 2      | 0     | 4    | 2         | 0                        | 3     | 0     | 16   | 3         | 0                     | 1     | 0     | 0    | 1         | 0      | 7          | 20  |
| 18:00              | 0                        | 1     | 0     | 0    | 1         | 0                     | 0      | 0     | 7    | 0         | 0                        | 0     | 0     | 9    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 1          | 16  |
| 18:15              | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 5    | 0         | 0                        | 0     | 0     | 0    | 0         | 0                     | 0     | 0     | 0    | 0         | 0      | 0          | 5   |
| 18:30              | 0                        | 1     | 0     | 0    | 1         | 0                     | 1      | 0     | 3    | 1         | 0                        | 0     | 0     | 2    | 0         | 0                     | 1     | 0     | 0    | 1         | 0      | 3          | 5   |
| 18:45              | 0                        | 0     | 0     | 0    | 0         | 0                     | 2      | 0     | 2    | 2         | 0                        | 0     | 0     | 2    | 0         | 0                     | 0     | 1     | 0    | 1         | 0      | 3          | 4   |
| <b>Total</b>       | 0                        | 2     | 0     | 0    | 2         | 0                     | 3      | 0     | 17   | 3         | 0                        | 0     | 0     | 13   | 0         | 0                     | 1     | 1     | 0    | 2         | 0      | 7          | 30  |
| <b>Grand Total</b> | 0                        | 4     | 1     | 0    | 5         | 0                     | 13     | 0     | 46   | 13        | 1                        | 11    | 0     | 71   | 12        | 0                     | 5     | 2     | 0    | 7         | 0      | 37         | 117 |
| Apprch %           | 0.0%                     | 80.0% | 20.0% |      |           | 0.0%                  | 100.0% | 0.0%  |      |           | 8.3%                     | 91.7% | 0.0%  |      |           | 0.0%                  | 71.4% | 28.6% |      |           |        |            |     |
| Total %            | 0.0%                     | 10.8% | 2.7%  |      | 13.5%     | 0.0%                  | 35.1%  | 0.0%  |      | 35.1%     | 2.7%                     | 29.7% | 0.0%  |      | 32.4%     | 0.0%                  | 13.5% | 5.4%  |      | 18.9%     | 100.0% |            |     |

| AM PEAK HOUR                                      | Fair Oaks Ave Southbound |        |       |      |           | Ahwanee Ave Westbound |        |       |      |           | Fair Oaks Ave Northbound |       |       |      |           | Ahwanee Ave Eastbound |      |        |      |           | Total |   |
|---|--------------------------|--------|-------|------|-----------|-----------------------|--------|-------|------|-----------|--------------------------|-------|-------|------|-----------|-----------------------|------|--------|------|-----------|-------|---|
| START TIME  | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                  | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                  | THRU | RIGHT  | PEDS | APP.TOTAL | Total |   |
| Peak Hour Analysis From 07:30 to 08:30            |                          |        |       |      |           |                       |        |       |      |           |                          |       |       |      |           |                       |      |        |      |           |       |   |
| Peak Hour For Entire Intersection Begins at 07:30 |                          |        |       |      |           |                       |        |       |      |           |                          |       |       |      |           |                       |      |        |      |           |       |   |
| 7:30  | 0                        | 0      | 0     | 0    | 0         | 0                     | 2      | 0     | 2    | 2         | 0                        | 0     | 0     | 9    | 0         | 0                     | 0    | 0      | 0    | 0         | 0     | 2 |
| 7:45  | 0                        | 1      | 0     | 0    | 1         | 0                     | 0      | 0     | 0    | 0         | 0                        | 2     | 0     | 4    | 2         | 0                     | 0    | 0      | 0    | 0         | 0     | 3 |
| 8:00  | 0                        | 0      | 0     | 0    | 0         | 0                     | 0      | 0     | 0    | 0         | 0                        | 1     | 0     | 5    | 1         | 0                     | 0    | 0      | 0    | 0         | 0     | 1 |
| 8:15  | 0                        | 0      | 0     | 0    | 0         | 0                     | 0      | 0     | 1    | 0         | 1                        | 0     | 0     | 1    | 1         | 0                     | 0    | 1      | 0    | 1         | 0     | 2 |
| <b>Total Volume</b>                               | 0                        | 1      | 0     | 0    | 1         | 0                     | 2      | 0     | 3    | 2         | 1                        | 3     | 0     | 19   | 4         | 0                     | 0    | 1      | 0    | 1         | 0     | 8 |
| % App Total                                       | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                  | 100.0% | 0.0%  |      |           | 25.0%                    | 75.0% | 0.0%  |      |           | 0.0%                  | 0.0% | 100.0% |      |           |       |   |
| PHF   | .000                     | .250   | .000  |      | .250      | .000                  | .250   | .000  |      | .250      | .250                     | .375  | .000  |      | .500      | .000                  | .000 | .250   |      | .250      | .667  |   |

| PM PEAK HOUR                                      | Fair Oaks Ave Southbound |       |       |      |           | Ahwanee Ave Westbound |        |       |      |           | Fair Oaks Ave Northbound |        |       |      |           | Ahwanee Ave Eastbound |        |       |      |           | Total |   |
|---|--------------------------|-------|-------|------|-----------|-----------------------|--------|-------|------|-----------|--------------------------|--------|-------|------|-----------|-----------------------|--------|-------|------|-----------|-------|---|
| START TIME  | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                  | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                  | THRU   | RIGHT | PEDS | APP.TOTAL | Total |   |
| Peak Hour Analysis From 17:15 to 18:15            |                          |       |       |      |           |                       |        |       |      |           |                          |        |       |      |           |                       |        |       |      |           |       |   |
| Peak Hour For Entire Intersection Begins at 17:15 |                          |       |       |      |           |                       |        |       |      |           |                          |        |       |      |           |                       |        |       |      |           |       |   |
| 17:15   | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 0    | 0         | 0                        | 1      | 0     | 3    | 1         | 0                     | 1      | 0     | 0    | 0         | 0     | 2 |
| 17:30   | 0                        | 0     | 0     | 0    | 0         | 0                     | 0      | 0     | 0    | 0         | 0                        | 1      | 0     | 3    | 1         | 0                     | 0      | 0     | 0    | 0         | 0     | 1 |
| 17:45   | 0                        | 0     | 1     | 0    | 1         | 0                     | 2      | 0     | 2    | 2         | 0                        | 0      | 0     | 6    | 0         | 0                     | 0      | 0     | 0    | 0         | 0     | 3 |
| 18:00   | 0                        | 1     | 0     | 0    | 1         | 0                     | 0      | 0     | 7    | 0         | 0                        | 0      | 0     | 9    | 0         | 0                     | 0      | 0     | 0    | 0         | 0     | 1 |
| <b>Total Volume</b>                               | 0                        | 1     | 1     | 0    | 2         | 0                     | 2      | 0     | 11   | 2         | 0                        | 2      | 0     | 21   | 2         | 0                     | 1      | 0     | 0    | 1         | 0     | 7 |
| % App Total                                       | 0.0%                     | 50.0% | 50.0% |      |           | 0.0%                  | 100.0% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                  | 100.0% | 0.0%  |      |           |       |   |
| PHF   | .000                     | .250  | .250  |      | .500      | .000                  | .250   | .000  |      | .250      | .000                     | .500   | .000  |      | .500      | .000                  | .250   | .000  |      | .250      | .583  |   |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Utturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-004 N Fair Oaks Avenue & Ahwanee Avenue  
 Date : 12/2/2015

**Unshifted Count = All Vehicles & Utturns**

| START TIME  | N Fair Oaks Avenue Southbound |       |       |        |           | Ahwanee Avenue Westbound |       |       |        |           | N Fair Oaks Avenue Northbound |       |       |        |           | Ahwanee Avenue Eastbound |      |       |        |           | Total  | Utturns Total |
|-------------|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-------------------------------|-------|-------|--------|-----------|--------------------------|------|-------|--------|-----------|--------|---------------|
|             | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU | RIGHT | UTURNS | APP.TOTAL |        |               |
| 14:00       | 15                            | 217   | 34    | 0      | 266       | 6                        | 0     | 8     | 0      | 14        | 6                             | 195   | 8     | 0      | 209       | 23                       | 5    | 13    | 0      | 41        | 530    | 0             |
| 14:15       | 11                            | 243   | 35    | 0      | 289       | 7                        | 7     | 18    | 0      | 32        | 9                             | 189   | 2     | 0      | 200       | 16                       | 1    | 12    | 0      | 29        | 550    | 0             |
| 14:30       | 15                            | 208   | 54    | 0      | 277       | 2                        | 8     | 11    | 0      | 21        | 15                            | 164   | 4     | 1      | 184       | 21                       | 0    | 12    | 0      | 33        | 515    | 1             |
| 14:45       | 10                            | 270   | 81    | 0      | 361       | 4                        | 6     | 13    | 0      | 23        | 19                            | 182   | 7     | 0      | 208       | 39                       | 9    | 20    | 0      | 68        | 660    | 0             |
| Total       | 51                            | 938   | 204   | 0      | 1193      | 19                       | 21    | 50    | 0      | 90        | 49                            | 730   | 21    | 1      | 801       | 99                       | 15   | 57    | 0      | 171       | 2255   | 1             |
| 15:00       | 13                            | 283   | 53    | 2      | 351       | 4                        | 4     | 11    | 0      | 19        | 7                             | 262   | 4     | 0      | 273       | 61                       | 8    | 21    | 0      | 90        | 733    | 2             |
| 15:15       | 12                            | 260   | 42    | 0      | 314       | 1                        | 1     | 5     | 0      | 7         | 13                            | 180   | 3     | 0      | 196       | 22                       | 3    | 19    | 0      | 44        | 561    | 0             |
| 15:30       | 13                            | 275   | 34    | 0      | 322       | 1                        | 1     | 5     | 0      | 7         | 10                            | 202   | 6     | 0      | 218       | 28                       | 1    | 16    | 0      | 45        | 592    | 0             |
| 15:45       | 18                            | 308   | 30    | 1      | 357       | 2                        | 1     | 10    | 0      | 13        | 9                             | 156   | 6     | 0      | 171       | 17                       | 3    | 17    | 0      | 37        | 578    | 1             |
| Total       | 56                            | 1126  | 159   | 3      | 1344      | 8                        | 7     | 31    | 0      | 46        | 39                            | 800   | 19    | 0      | 858       | 128                      | 15   | 73    | 0      | 216       | 2464   | 3             |
| Grand Total | 107                           | 2064  | 363   | 3      | 2537      | 27                       | 28    | 81    | 0      | 136       | 88                            | 1530  | 40    | 1      | 1659      | 227                      | 30   | 130   | 0      | 387       | 4719   | 4             |
| Apprch %    | 4.2%                          | 81.4% | 14.3% | 0.1%   |           | 19.9%                    | 20.6% | 59.6% | 0.0%   |           | 5.3%                          | 92.2% | 2.4%  | 0.1%   |           | 58.7%                    | 7.8% | 33.6% | 0.0%   |           |        |               |
| Total %     | 2.3%                          | 43.7% | 7.7%  | 0.1%   | 53.8%     | 0.6%                     | 0.6%  | 1.7%  | 0.0%   | 2.9%      | 1.9%                          | 32.4% | 0.8%  | 0.0%   | 35.2%     | 4.8%                     | 0.6% | 2.8%  | 0.0%   | 8.2%      | 100.0% |               |

| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |       |       |        |           | Ahwanee Avenue Westbound |       |       |        |           | N Fair Oaks Avenue Northbound |       |       |        |           | Ahwanee Avenue Eastbound |      |       |        |           | Total |
|---|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-------------------------------|-------|-------|--------|-----------|--------------------------|------|-------|--------|-----------|-------|
|   | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU | RIGHT | UTURNS | APP.TOTAL |       |
| Peak Hour Analysis From 14:45 to 15:45            |                               |       |       |        |           |                          |       |       |        |           |                               |       |       |        |           |                          |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 14:45 |                               |       |       |        |           |                          |       |       |        |           |                               |       |       |        |           |                          |      |       |        |           |       |
| 14:45   | 10                            | 270   | 81    | 0      | 361       | 4                        | 6     | 13    | 0      | 23        | 19                            | 182   | 7     | 0      | 208       | 39                       | 9    | 20    | 0      | 68        | 660   |
| 15:00   | 13                            | 283   | 53    | 2      | 351       | 4                        | 4     | 11    | 0      | 19        | 7                             | 262   | 4     | 0      | 273       | 61                       | 8    | 21    | 0      | 90        | 733   |
| 15:15   | 12                            | 260   | 42    | 0      | 314       | 1                        | 1     | 5     | 0      | 7         | 13                            | 180   | 3     | 0      | 196       | 22                       | 3    | 19    | 0      | 44        | 561   |
| 15:30   | 13                            | 275   | 34    | 0      | 322       | 1                        | 1     | 5     | 0      | 7         | 10                            | 202   | 6     | 0      | 218       | 28                       | 1    | 16    | 0      | 45        | 592   |
| Total Volume                                      | 48                            | 1088  | 210   | 2      | 1348      | 10                       | 12    | 34    | 0      | 56        | 49                            | 826   | 20    | 0      | 895       | 150                      | 21   | 76    | 0      | 247       | 2546  |
| % App Total                                       | 3.6%                          | 80.7% | 15.6% | 0.1%   |           | 17.9%                    | 21.4% | 60.7% | 0.0%   |           | 5.5%                          | 92.3% | 2.2%  | 0.0%   |           | 60.7%                    | 8.5% | 30.8% | 0.0%   |           |       |
| PHF   | .923                          | .961  | .648  | .250   | .934      | .625                     | .500  | .654  | .000   | .609      | .645                          | .788  | .714  | .000   | .820      | .615                     | .583 | .905  | .000   | .686      | .868  |



### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-004 N Fair Oaks Avenue & Ahwanee Avenue  
 Date : 12/2/2015

**Bank 1 Count = Bikes & Peds**

| START TIME         | N Fair Oaks Avenue Southbound |        |       |      |           | Ahwanee Avenue Westbound |       |       |      |           | N Fair Oaks Avenue Northbound |        |       |      |           | Ahwanee Avenue Eastbound |       |       |      |           | Total  | Peds Total |
|--------------------|-------------------------------|--------|-------|------|-----------|--------------------------|-------|-------|------|-----------|-------------------------------|--------|-------|------|-----------|--------------------------|-------|-------|------|-----------|--------|------------|
|                    | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL |        |            |
| 14:00              | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 0    | 0         | 0                             | 0      | 0     | 1    | 0         | 0                        | 0     | 0     | 0    | 0         | 0      | 1          |
| 14:15              | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 1    | 0         | 0                             | 0      | 0     | 1    | 0         | 0                        | 0     | 0     | 0    | 0         | 0      | 2          |
| 14:30              | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 1    | 0         | 0                             | 0      | 0     | 1    | 0         | 0                        | 0     | 0     | 0    | 0         | 0      | 2          |
| 14:45              | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 2    | 0         | 0                             | 0      | 0     | 4    | 0         | 0                        | 1     | 0     | 0    | 1         | 1      | 6          |
| <b>Total</b>       | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 4    | 0         | 0                             | 0      | 0     | 7    | 0         | 0                        | 1     | 0     | 0    | 1         | 1      | 11         |
| 15:00              | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 0    | 0         | 0                             | 0      | 0     | 40   | 0         | 1                        | 2     | 0     | 0    | 3         | 3      | 40         |
| 15:15              | 0                             | 1      | 0     | 0    | 1         | 0                        | 0     | 0     | 0    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 0    | 0         | 1      | 0          |
| 15:30              | 0                             | 0      | 0     | 0    | 0         | 0                        | 1     | 0     | 1    | 1         | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 0    | 0         | 1      | 1          |
| 15:45              | 0                             | 1      | 0     | 0    | 1         | 1                        | 0     | 0     | 5    | 1         | 0                             | 1      | 0     | 3    | 1         | 0                        | 0     | 0     | 0    | 0         | 3      | 8          |
| <b>Total</b>       | 0                             | 2      | 0     | 0    | 2         | 1                        | 1     | 0     | 6    | 2         | 0                             | 1      | 0     | 43   | 1         | 1                        | 2     | 0     | 0    | 3         | 8      | 49         |
| <b>Grand Total</b> | 0                             | 2      | 0     | 0    | 2         | 1                        | 1     | 0     | 10   | 2         | 0                             | 1      | 0     | 50   | 1         | 1                        | 3     | 0     | 0    | 4         | 9      | 60         |
| Apprch %           | 0.0%                          | 100.0% | 0.0%  |      |           | 50.0%                    | 50.0% | 0.0%  |      |           | 0.0%                          | 100.0% | 0.0%  |      |           | 25.0%                    | 75.0% | 0.0%  |      |           |        |            |
| Total %            | 0.0%                          | 22.2%  | 0.0%  |      | 22.2%     | 11.1%                    | 11.1% | 0.0%  |      | 22.2%     | 0.0%                          | 11.1%  | 0.0%  |      | 11.1%     | 11.1%                    | 33.3% | 0.0%  |      | 44.4%     | 100.0% |            |

| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |        |       |      |           | Ahwanee Avenue Westbound |        |       |      |           | N Fair Oaks Avenue Northbound |      |       |      |           | Ahwanee Avenue Eastbound |       |       |      |           | Total |  |
|---|-------------------------------|--------|-------|------|-----------|--------------------------|--------|-------|------|-----------|-------------------------------|------|-------|------|-----------|--------------------------|-------|-------|------|-----------|-------|--|
|   | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL |       |  |
| Peak Hour Analysis From 14:45 to 15:45            |                               |        |       |      |           |                          |        |       |      |           |                               |      |       |      |           |                          |       |       |      |           |       |  |
| Peak Hour For Entire Intersection Begins at 14:45 |                               |        |       |      |           |                          |        |       |      |           |                               |      |       |      |           |                          |       |       |      |           |       |  |
| 14:45   | 0                             | 0      | 0     | 0    | 0         | 0                        | 0      | 0     | 2    | 0         | 0                             | 0    | 0     | 4    | 0         | 0                        | 1     | 0     | 0    | 1         | 1     |  |
| 15:00   | 0                             | 0      | 0     | 0    | 0         | 0                        | 0      | 0     | 0    | 0         | 0                             | 0    | 0     | 40   | 0         | 1                        | 2     | 0     | 0    | 3         | 3     |  |
| 15:15   | 0                             | 1      | 0     | 0    | 1         | 0                        | 0      | 0     | 0    | 0         | 0                             | 0    | 0     | 0    | 0         | 0                        | 0     | 0     | 0    | 0         | 1     |  |
| 15:30   | 0                             | 0      | 0     | 0    | 0         | 0                        | 1      | 0     | 1    | 1         | 0                             | 0    | 0     | 0    | 0         | 0                        | 0     | 0     | 0    | 0         | 1     |  |
| Total Volume                                      | 0                             | 1      | 0     | 0    | 1         | 0                        | 1      | 0     | 3    | 1         | 0                             | 0    | 0     | 44   | 0         | 1                        | 3     | 0     | 0    | 4         | 6     |  |
| % App Total                                       | 0.0%                          | 100.0% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                          | 0.0% | 0.0%  |      |           | 25.0%                    | 75.0% | 0.0%  |      |           |       |  |
| PHF   | .000                          | .250   | .000  |      | .250      | .000                     | .250   | .000  |      | .250      | .000                          | .000 | .000  |      | .000      | .250                     | .375  | .000  |      | .333      | .500  |  |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
[info@ndsdata.com](mailto:info@ndsdata.com)

File Name : 17-7255-006 Fair Oaks Ave & E. Duane Ave  
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

| START TIME  | Fair Oaks Ave Southbound |       |       |        |           | E. Duane Ave Westbound |       |       |        |           | Fair Oaks Ave Northbound |       |       |        |           | E. Duane Ave Eastbound |       |       |        |           | Total  | Uturns Total |
|-------------|--------------------------|-------|-------|--------|-----------|------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|------------------------|-------|-------|--------|-----------|--------|--------------|
|             | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                   | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                   | THRU  | RIGHT | UTURNS | APP.TOTAL |        |              |
| 7:00        | 11                       | 136   | 3     | 0      | 150       | 55                     | 13    | 18    | 0      | 86        | 1                        | 107   | 14    | 0      | 122       | 18                     | 7     | 3     | 0      | 28        | 386    | 0            |
| 7:15        | 38                       | 192   | 8     | 0      | 238       | 57                     | 19    | 33    | 0      | 109       | 0                        | 135   | 34    | 0      | 169       | 20                     | 12    | 2     | 0      | 34        | 550    | 0            |
| 7:30        | 79                       | 171   | 10    | 0      | 260       | 58                     | 27    | 47    | 0      | 132       | 5                        | 158   | 58    | 0      | 221       | 29                     | 28    | 3     | 0      | 60        | 673    | 0            |
| 7:45        | 35                       | 187   | 12    | 0      | 234       | 59                     | 32    | 59    | 0      | 150       | 3                        | 252   | 58    | 0      | 313       | 41                     | 33    | 6     | 0      | 80        | 777    | 0            |
| Total       | 163                      | 686   | 33    | 0      | 882       | 229                    | 91    | 157   | 0      | 477       | 9                        | 652   | 164   | 0      | 825       | 108                    | 80    | 14    | 0      | 202       | 2386   | 0            |
| 8:00        | 24                       | 154   | 15    | 0      | 193       | 54                     | 26    | 48    | 0      | 128       | 3                        | 210   | 29    | 0      | 242       | 30                     | 32    | 6     | 0      | 68        | 631    | 0            |
| 8:15        | 28                       | 166   | 12    | 0      | 206       | 38                     | 29    | 44    | 0      | 111       | 1                        | 233   | 58    | 0      | 292       | 22                     | 23    | 5     | 0      | 50        | 659    | 0            |
| 8:30        | 26                       | 135   | 7     | 0      | 168       | 51                     | 34    | 59    | 0      | 144       | 1                        | 270   | 56    | 0      | 327       | 27                     | 29    | 3     | 0      | 59        | 698    | 0            |
| 8:45        | 30                       | 181   | 4     | 0      | 215       | 56                     | 29    | 55    | 0      | 140       | 1                        | 268   | 38    | 0      | 307       | 18                     | 14    | 6     | 0      | 38        | 700    | 0            |
| Total       | 108                      | 636   | 38    | 0      | 782       | 199                    | 118   | 206   | 0      | 523       | 6                        | 981   | 181   | 0      | 1168      | 97                     | 98    | 20    | 0      | 215       | 2688   | 0            |
| 9:00        | 18                       | 152   | 10    | 0      | 180       | 50                     | 24    | 68    | 0      | 142       | 1                        | 266   | 32    | 0      | 299       | 19                     | 9     | 2     | 0      | 30        | 651    | 0            |
| 9:15        | 18                       | 174   | 6     | 0      | 198       | 44                     | 17    | 51    | 0      | 112       | 2                        | 284   | 36    | 0      | 322       | 18                     | 12    | 1     | 0      | 31        | 663    | 0            |
| 9:30        | 21                       | 147   | 10    | 0      | 178       | 33                     | 17    | 46    | 0      | 96        | 5                        | 244   | 29    | 0      | 278       | 18                     | 10    | 3     | 0      | 31        | 583    | 0            |
| 9:45        | 12                       | 160   | 10    | 0      | 182       | 38                     | 14    | 44    | 0      | 96        | 1                        | 222   | 34    | 0      | 257       | 8                      | 10    | 6     | 0      | 24        | 559    | 0            |
| Total       | 69                       | 633   | 36    | 0      | 738       | 165                    | 72    | 209   | 0      | 446       | 9                        | 1016  | 131   | 0      | 1156      | 63                     | 41    | 12    | 0      | 116       | 2456   | 0            |
| 16:00       | 31                       | 244   | 26    | 0      | 301       | 48                     | 11    | 33    | 0      | 92        | 2                        | 162   | 32    | 0      | 196       | 9                      | 8     | 6     | 0      | 23        | 612    | 0            |
| 16:15       | 34                       | 264   | 17    | 0      | 315       | 41                     | 11    | 23    | 0      | 75        | 1                        | 161   | 36    | 0      | 198       | 9                      | 11    | 1     | 0      | 21        | 609    | 0            |
| 16:30       | 36                       | 318   | 24    | 0      | 378       | 45                     | 11    | 45    | 0      | 101       | 3                        | 153   | 48    | 0      | 204       | 9                      | 16    | 2     | 0      | 27        | 710    | 0            |
| 16:45       | 58                       | 328   | 22    | 0      | 408       | 44                     | 12    | 26    | 0      | 82        | 4                        | 149   | 43    | 0      | 196       | 11                     | 26    | 5     | 0      | 42        | 728    | 0            |
| Total       | 159                      | 1154  | 89    | 0      | 1402      | 178                    | 45    | 127   | 0      | 350       | 10                       | 625   | 159   | 0      | 794       | 38                     | 61    | 14    | 0      | 113       | 2659   | 0            |
| 17:00       | 61                       | 412   | 17    | 0      | 490       | 58                     | 23    | 32    | 0      | 113       | 0                        | 168   | 56    | 0      | 224       | 16                     | 22    | 10    | 0      | 48        | 875    | 0            |
| 17:15       | 65                       | 453   | 26    | 0      | 544       | 63                     | 30    | 31    | 0      | 124       | 0                        | 171   | 54    | 0      | 225       | 15                     | 25    | 5     | 0      | 45        | 938    | 0            |
| 17:30       | 58                       | 481   | 28    | 0      | 567       | 58                     | 31    | 21    | 0      | 110       | 5                        | 178   | 68    | 0      | 251       | 12                     | 27    | 6     | 0      | 45        | 973    | 0            |
| 17:45       | 55                       | 504   | 24    | 0      | 583       | 62                     | 33    | 31    | 0      | 126       | 4                        | 185   | 54    | 0      | 243       | 14                     | 24    | 7     | 0      | 45        | 997    | 0            |
| Total       | 239                      | 1850  | 95    | 0      | 2184      | 241                    | 117   | 115   | 0      | 473       | 9                        | 702   | 232   | 0      | 943       | 57                     | 98    | 28    | 0      | 183       | 3783   | 0            |
| 18:00       | 37                       | 446   | 33    | 0      | 516       | 60                     | 23    | 47    | 0      | 130       | 2                        | 192   | 36    | 0      | 230       | 15                     | 18    | 5     | 0      | 38        | 914    | 0            |
| 18:15       | 41                       | 422   | 34    | 0      | 497       | 50                     | 22    | 17    | 0      | 89        | 6                        | 177   | 32    | 0      | 215       | 13                     | 19    | 4     | 0      | 36        | 837    | 0            |
| 18:30       | 35                       | 402   | 25    | 0      | 462       | 38                     | 17    | 22    | 0      | 77        | 2                        | 202   | 50    | 0      | 254       | 12                     | 26    | 10    | 0      | 48        | 841    | 0            |
| 18:45       | 24                       | 352   | 31    | 0      | 407       | 38                     | 21    | 29    | 0      | 88        | 5                        | 178   | 32    | 0      | 215       | 10                     | 17    | 4     | 0      | 31        | 741    | 0            |
| Total       | 137                      | 1622  | 123   | 0      | 1882      | 186                    | 83    | 115   | 0      | 384       | 15                       | 749   | 150   | 0      | 914       | 50                     | 80    | 23    | 0      | 153       | 3333   | 0            |
| Grand Total | 875                      | 6581  | 414   | 0      | 7870      | 1198                   | 526   | 929   | 0      | 2653      | 58                       | 4725  | 1017  | 0      | 5800      | 413                    | 458   | 111   | 0      | 982       | 17305  | 0            |
| Apprch %    | 11.1%                    | 83.6% | 5.3%  | 0.0%   | 45.2%     | 19.8%                  | 35.0% | 0.0%  | 15.3%  | 0.3%      | 81.5%                    | 17.5% | 0.0%  | 33.5%  | 42.1%     | 46.6%                  | 11.3% | 0.0%  | 5.7%   | 100.0%    |        |              |
| Total %     | 5.1%                     | 38.0% | 2.4%  | 0.0%   | 45.5%     | 6.9%                   | 3.0%  | 5.4%  | 0.0%   | 15.3%     | 0.3%                     | 27.3% | 5.9%  | 0.0%   | 33.5%     | 2.4%                   | 2.6%  | 0.6%  | 0.0%   | 5.7%      | 100.0% |              |

| AM PEAK HOUR                                      | Fair Oaks Ave Southbound |       |       |        |           | E. Duane Ave Westbound |       |       |        |           | Fair Oaks Ave Northbound |       |       |        |           | E. Duane Ave Eastbound |       |       |        |           | Total  |
|---|--------------------------|-------|-------|--------|-----------|------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|------------------------|-------|-------|--------|-----------|--------|
| START TIME  | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                   | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                   | THRU  | RIGHT | UTURNS | APP.TOTAL | Total  |
| Peak Hour Analysis From 07:45 to 08:45            |                          |       |       |        |           |                        |       |       |        |           |                          |       |       |        |           |                        |       |       |        |           |        |
| Peak Hour For Entire Intersection Begins at 07:45 |                          |       |       |        |           |                        |       |       |        |           |                          |       |       |        |           |                        |       |       |        |           |        |
| 7:45  | 35                       | 187   | 12    | 0      | 234       | 59                     | 32    | 59    | 0      | 150       | 3                        | 252   | 58    | 0      | 313       | 41                     | 33    | 6     | 0      | 80        | 777    |
| 8:00  | 24                       | 154   | 15    | 0      | 193       | 54                     | 26    | 48    | 0      | 128       | 3                        | 210   | 29    | 0      | 242       | 30                     | 32    | 6     | 0      | 68        | 631    |
| 8:15  | 28                       | 166   | 12    | 0      | 206       | 38                     | 29    | 44    | 0      | 111       | 1                        | 233   | 58    | 0      | 292       | 22                     | 23    | 5     | 0      | 50        | 659    |
| 8:30  | 26                       | 135   | 7     | 0      | 168       | 51                     | 34    | 59    | 0      | 144       | 1                        | 270   | 56    | 0      | 327       | 27                     | 29    | 3     | 0      | 59        | 698    |
| Total Volume                                      | 113                      | 642   | 46    | 0      | 801       | 202                    | 121   | 210   | 0      | 533       | 8                        | 965   | 201   | 0      | 1174      | 120                    | 117   | 20    | 0      | 257       | 2765   |
| % App Total                                       | 14.1%                    | 80.1% | 5.7%  | 0.0%   | 45.5%     | 37.9%                  | 22.7% | 39.4% | 0.0%   | 15.3%     | 0.7%                     | 82.2% | 17.1% | 0.0%   | 33.5%     | 46.7%                  | 45.5% | 7.8%  | 0.0%   | 5.7%      | 100.0% |
| PHF   | .807                     | .858  | .767  | .000   | .856      | .856                   | .890  | .890  | .000   | .888      | .667                     | .894  | .866  | .000   | .898      | .732                   | .886  | .833  | .000   | .803      | .890   |

| PM PEAK HOUR                                      | Fair Oaks Ave Southbound |       |       |        |           | E. Duane Ave Westbound |       |       |        |           | Fair Oaks Ave Northbound |       |       |        |           | E. Duane Ave Eastbound |       |       |        |           | Total  |
|---|--------------------------|-------|-------|--------|-----------|------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|------------------------|-------|-------|--------|-----------|--------|
| START TIME  | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                   | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                   | THRU  | RIGHT | UTURNS | APP.TOTAL | Total  |
| Peak Hour Analysis From 17:15 to 18:15            |                          |       |       |        |           |                        |       |       |        |           |                          |       |       |        |           |                        |       |       |        |           |        |
| Peak Hour For Entire Intersection Begins at 17:15 |                          |       |       |        |           |                        |       |       |        |           |                          |       |       |        |           |                        |       |       |        |           |        |
| 17:15   | 65                       | 453   | 26    | 0      | 544       | 63                     | 30    | 31    | 0      | 124       | 0                        | 171   | 54    | 0      | 225       | 15                     | 25    | 5     | 0      | 45        | 938    |
| 17:30   | 58                       | 481   | 28    | 0      | 567       | 58                     | 31    | 21    | 0      | 110       | 5                        | 178   | 68    | 0      | 251       | 12                     | 27    | 6     | 0      | 45        | 973    |
| 17:45   | 55                       | 504   | 24    | 0      | 583       | 62                     | 33    | 31    | 0      | 126       | 4                        | 185   | 54    | 0      | 243       | 14                     | 24    | 7     | 0      | 45        | 997    |
| 18:00   | 37                       | 446   | 33    | 0      | 516       | 60                     | 23    | 47    | 0      | 130       | 2                        | 192   | 36    | 0      | 230       | 15                     | 18    | 5     | 0      | 38        | 914    |
| Total Volume                                      | 215                      | 1884  | 111   | 0      | 2210      | 243                    | 117   | 130   | 0      | 490       | 11                       | 726   | 212   | 0      | 949       | 56                     | 94    | 23    | 0      | 173       | 3822   |
| % App Total                                       | 9.7%                     | 85.2% | 5.0%  | 0.0%   | 45.5%     | 49.6%                  | 23.9% | 26.5% | 0.0%   | 15.3%     | 1.2%                     | 76.5% | 22.3% | 0.0%   | 33.5%     | 32.4%                  | 54.3% | 13.3% | 0.0%   | 5.7%      | 100.0% |
| PHF   | .827                     | .935  | .841  | .000   | .948      | .964                   | .886  | .691  | .000   | .942      | .550                     | .945  | .779  | .000   | .945      | .933                   | .870  | .821  | .000   | .961      | .958   |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Utturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-006 Fair Oaks Ave & E. Duane Ave  
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

| START TIME  | Fair Oaks Ave Southbound |       |       |      |           | E. Duane Ave Westbound |       |       |      |           | Fair Oaks Ave Northbound |        |       |      |           | E. Duane Ave Eastbound |       |       |      |           | Total  | Peds Total |
|-------------|--------------------------|-------|-------|------|-----------|------------------------|-------|-------|------|-----------|--------------------------|--------|-------|------|-----------|------------------------|-------|-------|------|-----------|--------|------------|
|             | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU  | RIGHT | PEDS | APP.TOTAL |        |            |
| 7:00        | 0                        | 0     | 2     | 4    | 2         | 1                      | 3     | 0     | 1    | 4         | 0                        | 1      | 0     | 2    | 1         | 0                      | 1     | 0     | 4    | 1         | 8      | 11         |
| 7:15        | 0                        | 0     | 0     | 12   | 0         | 0                      | 1     | 0     | 1    | 1         | 0                        | 0      | 0     | 2    | 0         | 0                      | 0     | 0     | 2    | 0         | 0      | 17         |
| 7:30        | 0                        | 1     | 0     | 5    | 1         | 0                      | 1     | 0     | 3    | 1         | 0                        | 1      | 0     | 2    | 1         | 0                      | 0     | 0     | 0    | 0         | 3      | 10         |
| 7:45        | 0                        | 0     | 1     | 10   | 1         | 0                      | 2     | 0     | 2    | 2         | 0                        | 1      | 0     | 3    | 1         | 0                      | 0     | 0     | 5    | 0         | 4      | 20         |
| Total       | 0                        | 1     | 3     | 31   | 4         | 1                      | 7     | 0     | 7    | 8         | 0                        | 3      | 0     | 9    | 3         | 0                      | 1     | 0     | 11   | 1         | 16     | 58         |
| 8:00        | 0                        | 0     | 1     | 5    | 1         | 0                      | 3     | 1     | 9    | 4         | 0                        | 0      | 0     | 0    | 0         | 0                      | 0     | 0     | 1    | 0         | 5      | 15         |
| 8:15        | 1                        | 0     | 1     | 0    | 2         | 0                      | 2     | 0     | 10   | 2         | 0                        | 0      | 0     | 5    | 0         | 0                      | 1     | 0     | 4    | 1         | 5      | 19         |
| 8:30        | 0                        | 1     | 1     | 3    | 2         | 0                      | 0     | 0     | 3    | 0         | 0                        | 0      | 0     | 1    | 0         | 0                      | 0     | 0     | 1    | 0         | 2      | 8          |
| 8:45        | 0                        | 0     | 0     | 0    | 0         | 0                      | 4     | 0     | 1    | 4         | 0                        | 0      | 0     | 3    | 0         | 0                      | 1     | 0     | 0    | 1         | 5      | 4          |
| Total       | 1                        | 1     | 3     | 8    | 5         | 0                      | 9     | 1     | 23   | 10        | 0                        | 0      | 0     | 9    | 0         | 0                      | 2     | 0     | 6    | 2         | 17     | 46         |
| 9:00        | 0                        | 1     | 0     | 4    | 1         | 1                      | 0     | 0     | 0    | 1         | 0                        | 0      | 0     | 0    | 0         | 1                      | 0     | 0     | 0    | 1         | 3      | 4          |
| 9:15        | 1                        | 0     | 0     | 2    | 1         | 2                      | 1     | 1     | 2    | 4         | 0                        | 1      | 0     | 0    | 1         | 0                      | 1     | 0     | 1    | 1         | 7      | 5          |
| 9:30        | 0                        | 1     | 0     | 2    | 1         | 1                      | 1     | 0     | 1    | 2         | 0                        | 0      | 0     | 0    | 0         | 0                      | 0     | 0     | 1    | 0         | 3      | 4          |
| 9:45        | 0                        | 0     | 0     | 4    | 0         | 1                      | 0     | 0     | 4    | 1         | 0                        | 0      | 0     | 5    | 0         | 0                      | 0     | 0     | 2    | 0         | 1      | 15         |
| Total       | 1                        | 2     | 0     | 12   | 3         | 5                      | 2     | 1     | 7    | 8         | 0                        | 1      | 0     | 5    | 1         | 1                      | 1     | 0     | 4    | 2         | 14     | 28         |
| 16:00       | 0                        | 0     | 0     | 2    | 0         | 0                      | 2     | 0     | 1    | 2         | 0                        | 1      | 0     | 1    | 1         | 0                      | 1     | 0     | 1    | 1         | 4      | 5          |
| 16:15       | 0                        | 0     | 0     | 1    | 0         | 0                      | 0     | 0     | 5    | 0         | 0                        | 1      | 0     | 2    | 1         | 0                      | 2     | 0     | 0    | 2         | 3      | 8          |
| 16:30       | 0                        | 0     | 0     | 3    | 0         | 0                      | 2     | 0     | 4    | 2         | 0                        | 0      | 0     | 2    | 0         | 0                      | 0     | 0     | 0    | 0         | 2      | 9          |
| 16:45       | 0                        | 0     | 0     | 0    | 0         | 0                      | 1     | 0     | 0    | 1         | 0                        | 1      | 0     | 1    | 1         | 0                      | 1     | 0     | 0    | 1         | 3      | 1          |
| Total       | 0                        | 0     | 0     | 6    | 0         | 0                      | 5     | 0     | 10   | 5         | 0                        | 3      | 0     | 6    | 3         | 0                      | 4     | 0     | 1    | 4         | 12     | 23         |
| 17:00       | 0                        | 1     | 0     | 1    | 1         | 0                      | 1     | 0     | 4    | 1         | 0                        | 0      | 0     | 3    | 0         | 1                      | 1     | 0     | 1    | 2         | 4      | 9          |
| 17:15       | 0                        | 0     | 0     | 2    | 0         | 0                      | 0     | 0     | 0    | 0         | 0                        | 0      | 0     | 2    | 0         | 0                      | 0     | 0     | 2    | 0         | 0      | 6          |
| 17:30       | 0                        | 0     | 0     | 4    | 0         | 0                      | 0     | 0     | 2    | 0         | 0                        | 1      | 0     | 1    | 1         | 0                      | 3     | 0     | 2    | 3         | 4      | 9          |
| 17:45       | 0                        | 0     | 0     | 4    | 0         | 0                      | 1     | 0     | 4    | 1         | 0                        | 0      | 0     | 2    | 0         | 1                      | 0     | 0     | 4    | 1         | 2      | 14         |
| Total       | 0                        | 1     | 0     | 11   | 1         | 0                      | 2     | 0     | 10   | 2         | 0                        | 1      | 0     | 8    | 1         | 2                      | 4     | 0     | 9    | 6         | 10     | 38         |
| 18:00       | 0                        | 1     | 0     | 2    | 1         | 0                      | 0     | 0     | 3    | 0         | 0                        | 0      | 0     | 1    | 0         | 1                      | 4     | 0     | 1    | 5         | 6      | 7          |
| 18:15       | 0                        | 1     | 0     | 0    | 1         | 0                      | 1     | 0     | 2    | 1         | 0                        | 1      | 0     | 0    | 1         | 0                      | 2     | 0     | 2    | 2         | 5      | 4          |
| 18:30       | 0                        | 1     | 0     | 5    | 1         | 0                      | 1     | 0     | 1    | 1         | 0                        | 1      | 0     | 3    | 1         | 3                      | 1     | 0     | 1    | 4         | 7      | 10         |
| 18:45       | 0                        | 0     | 0     | 4    | 0         | 0                      | 0     | 0     | 6    | 0         | 0                        | 0      | 0     | 1    | 0         | 1                      | 0     | 0     | 1    | 1         | 1      | 12         |
| Total       | 0                        | 3     | 0     | 11   | 3         | 0                      | 2     | 0     | 12   | 2         | 0                        | 2      | 0     | 5    | 2         | 5                      | 7     | 0     | 5    | 12        | 19     | 33         |
| Grand Total | 2                        | 8     | 6     | 79   | 16        | 6                      | 27    | 2     | 69   | 35        | 0                        | 10     | 0     | 42   | 10        | 8                      | 19    | 0     | 36   | 27        | 88     | 226        |
| Apprch %    | 12.5%                    | 50.0% | 37.5% |      |           | 17.1%                  | 77.1% | 5.7%  |      |           | 0.0%                     | 100.0% | 0.0%  |      |           | 29.6%                  | 70.4% | 0.0%  |      |           |        |            |
| Total %     | 2.3%                     | 9.1%  | 6.8%  |      | 18.2%     | 6.8%                   | 30.7% | 2.3%  |      | 39.8%     | 0.0%                     | 11.4%  | 0.0%  |      | 11.4%     | 9.1%                   | 21.6% | 0.0%  |      | 30.7%     | 100.0% |            |

| AM PEAK HOUR                                      | Fair Oaks Ave Southbound |       |       |      |           | E. Duane Ave Westbound |       |       |      |           | Fair Oaks Ave Northbound |        |       |      |           | E. Duane Ave Eastbound |        |       |      |           | Total |
|---|--------------------------|-------|-------|------|-----------|------------------------|-------|-------|------|-----------|--------------------------|--------|-------|------|-----------|------------------------|--------|-------|------|-----------|-------|
| START TIME  | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU   | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 07:45 to 08:45            |                          |       |       |      |           |                        |       |       |      |           |                          |        |       |      |           |                        |        |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 07:45 |                          |       |       |      |           |                        |       |       |      |           |                          |        |       |      |           |                        |        |       |      |           |       |
| 7:45  | 0                        | 0     | 1     | 10   | 1         | 0                      | 2     | 0     | 2    | 2         | 0                        | 1      | 0     | 3    | 1         | 0                      | 0      | 0     | 5    | 0         | 4     |
| 8:00  | 0                        | 0     | 1     | 5    | 1         | 0                      | 3     | 1     | 9    | 4         | 0                        | 0      | 0     | 0    | 0         | 0                      | 0      | 0     | 1    | 0         | 5     |
| 8:15  | 1                        | 0     | 1     | 0    | 2         | 0                      | 2     | 0     | 10   | 2         | 0                        | 0      | 0     | 5    | 0         | 0                      | 1      | 0     | 4    | 1         | 5     |
| 8:30  | 0                        | 1     | 1     | 3    | 2         | 0                      | 0     | 0     | 3    | 0         | 0                        | 0      | 0     | 1    | 0         | 0                      | 0      | 0     | 1    | 0         | 2     |
| Total Volume                                      | 1                        | 1     | 4     | 18   | 6         | 0                      | 7     | 1     | 24   | 8         | 0                        | 1      | 0     | 9    | 1         | 0                      | 1      | 0     | 11   | 1         | 16    |
| % App Total                                       | 16.7%                    | 16.7% | 66.7% |      |           | 0.0%                   | 87.5% | 12.5% |      |           | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                   | 100.0% | 0.0%  |      |           |       |
| PHF   | .250                     | .250  | 1.000 |      | .750      | .000                   | .583  | .250  |      | .500      | .000                     | .250   | .000  |      | .250      | .000                   | .250   | .000  |      | .250      | .800  |

| PM PEAK HOUR                                      | Fair Oaks Ave Southbound |        |       |      |           | E. Duane Ave Westbound |        |       |      |           | Fair Oaks Ave Northbound |        |       |      |           | E. Duane Ave Eastbound |       |       |      |           | Total |
|---|--------------------------|--------|-------|------|-----------|------------------------|--------|-------|------|-----------|--------------------------|--------|-------|------|-----------|------------------------|-------|-------|------|-----------|-------|
| START TIME  | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU  | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                          |        |       |      |           |                        |        |       |      |           |                          |        |       |      |           |                        |       |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                          |        |       |      |           |                        |        |       |      |           |                          |        |       |      |           |                        |       |       |      |           |       |
| 17:15   | 0                        | 0      | 0     | 2    | 0         | 0                      | 0      | 0     | 0    | 0         | 0                        | 0      | 0     | 2    | 0         | 0                      | 0     | 0     | 2    | 0         | 0     |
| 17:30   | 0                        | 0      | 0     | 4    | 0         | 0                      | 0      | 0     | 2    | 0         | 0                        | 1      | 0     | 1    | 1         | 0                      | 3     | 0     | 2    | 3         | 4     |
| 17:45   | 0                        | 0      | 0     | 4    | 0         | 0                      | 1      | 0     | 4    | 1         | 0                        | 0      | 0     | 2    | 0         | 1                      | 0     | 0     | 4    | 1         | 2     |
| 18:00   | 0                        | 1      | 0     | 2    | 1         | 0                      | 0      | 0     | 3    | 0         | 0                        | 0      | 0     | 1    | 0         | 1                      | 4     | 0     | 1    | 5         | 6     |
| Total Volume                                      | 0                        | 1      | 0     | 12   | 1         | 0                      | 1      | 0     | 9    | 1         | 0                        | 1      | 0     | 6    | 1         | 2                      | 7     | 0     | 9    | 9         | 12    |
| % App Total                                       | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                   | 100.0% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      |           | 22.2%                  | 77.8% | 0.0%  |      |           |       |
| PHF   | .000                     | .250   | .000  |      | .250      | .000                   | .250   | .000  |      | .250      | .000                     | .250   | .000  |      | .250      | .500                   | .438  | .000  |      | .450      | .500  |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-006 N Fair Oaks Avenue & E Duane Avenue  
 Date : 12/2/2015

**Unshifted Count = All Vehicles & Uturns**

| START TIME  | N Fair Oaks Avenue Southbound |       |       |        |           | E Duane Avenue Westbound |       |       |        |           | N Fair Oaks Avenue Northbound |       |       |        |           | E Duane Avenue Eastbound |       |       |        |           | Total  | Uturns Total |
|-------------|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|--------|--------------|
|             | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL |        |              |
| 14:00       | 10                            | 169   | 13    | 0      | 192       | 44                       | 10    | 19    | 0      | 73        | 3                             | 154   | 29    | 0      | 186       | 8                        | 11    | 5     | 0      | 24        | 475    | 0            |
| 14:15       | 14                            | 206   | 12    | 0      | 232       | 41                       | 19    | 14    | 0      | 74        | 1                             | 152   | 28    | 0      | 181       | 11                       | 9     | 5     | 0      | 25        | 512    | 0            |
| 14:30       | 8                             | 180   | 16    | 0      | 204       | 41                       | 20    | 12    | 0      | 73        | 1                             | 151   | 27    | 0      | 179       | 16                       | 8     | 3     | 0      | 27        | 483    | 0            |
| 14:45       | 39                            | 207   | 18    | 0      | 264       | 41                       | 22    | 17    | 0      | 80        | 5                             | 175   | 38    | 0      | 218       | 17                       | 29    | 6     | 0      | 52        | 614    | 0            |
| Total       | 71                            | 762   | 59    | 0      | 892       | 167                      | 71    | 62    | 0      | 300       | 10                            | 632   | 122   | 0      | 764       | 52                       | 57    | 19    | 0      | 128       | 2084   | 0            |
| 15:00       | 33                            | 203   | 11    | 0      | 247       | 62                       | 19    | 47    | 0      | 128       | 2                             | 184   | 37    | 0      | 223       | 15                       | 21    | 4     | 0      | 40        | 638    | 0            |
| 15:15       | 40                            | 212   | 16    | 0      | 268       | 53                       | 9     | 33    | 0      | 95        | 5                             | 165   | 32    | 0      | 202       | 11                       | 22    | 14    | 0      | 47        | 612    | 0            |
| 15:30       | 19                            | 218   | 19    | 0      | 256       | 50                       | 9     | 17    | 0      | 76        | 3                             | 194   | 48    | 0      | 245       | 4                        | 15    | 8     | 0      | 27        | 604    | 0            |
| 15:45       | 22                            | 249   | 14    | 0      | 285       | 51                       | 13    | 15    | 0      | 79        | 4                             | 129   | 43    | 0      | 176       | 11                       | 11    | 2     | 0      | 24        | 564    | 0            |
| Total       | 114                           | 882   | 60    | 0      | 1056      | 216                      | 50    | 112   | 0      | 378       | 14                            | 672   | 160   | 0      | 846       | 41                       | 69    | 28    | 0      | 138       | 2418   | 0            |
| Grand Total | 185                           | 1644  | 119   | 0      | 1948      | 383                      | 121   | 174   | 0      | 678       | 24                            | 1304  | 282   | 0      | 1610      | 93                       | 126   | 47    | 0      | 266       | 4502   | 0            |
| Apprch %    | 9.5%                          | 84.4% | 6.1%  | 0.0%   |           | 56.5%                    | 17.8% | 25.7% | 0.0%   |           | 1.5%                          | 81.0% | 17.5% | 0.0%   |           | 35.0%                    | 47.4% | 17.7% | 0.0%   |           |        |              |
| Total %     | 4.1%                          | 36.5% | 2.6%  | 0.0%   | 43.3%     | 8.5%                     | 2.7%  | 3.9%  | 0.0%   | 15.1%     | 0.5%                          | 29.0% | 6.3%  | 0.0%   | 35.8%     | 2.1%                     | 2.8%  | 1.0%  | 0.0%   | 5.9%      | 100.0% |              |

| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |       |       |        |           | E Duane Avenue Westbound |       |       |        |           | N Fair Oaks Avenue Northbound |       |       |        |           | E Duane Avenue Eastbound |       |       |        |           | Total |
|---|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-------|
|   | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL |       |
| Peak Hour Analysis From 14:45 to 15:45            |                               |       |       |        |           |                          |       |       |        |           |                               |       |       |        |           |                          |       |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 14:45 |                               |       |       |        |           |                          |       |       |        |           |                               |       |       |        |           |                          |       |       |        |           |       |
| 14:45   | 39                            | 207   | 18    | 0      | 264       | 41                       | 22    | 17    | 0      | 80        | 5                             | 175   | 38    | 0      | 218       | 17                       | 29    | 6     | 0      | 52        | 614   |
| 15:00   | 33                            | 203   | 11    | 0      | 247       | 62                       | 19    | 47    | 0      | 128       | 2                             | 184   | 37    | 0      | 223       | 15                       | 21    | 4     | 0      | 40        | 638   |
| 15:15   | 40                            | 212   | 16    | 0      | 268       | 53                       | 9     | 33    | 0      | 95        | 5                             | 165   | 32    | 0      | 202       | 11                       | 22    | 14    | 0      | 47        | 612   |
| 15:30   | 19                            | 218   | 19    | 0      | 256       | 50                       | 9     | 17    | 0      | 76        | 3                             | 194   | 48    | 0      | 245       | 4                        | 15    | 8     | 0      | 27        | 604   |
| Total Volume                                      | 131                           | 840   | 64    | 0      | 1035      | 206                      | 59    | 114   | 0      | 379       | 15                            | 718   | 155   | 0      | 888       | 47                       | 87    | 32    | 0      | 166       | 2468  |
| % App Total                                       | 12.7%                         | 81.2% | 6.2%  | 0.0%   |           | 54.4%                    | 15.6% | 30.1% | 0.0%   |           | 1.7%                          | 80.9% | 17.5% | 0.0%   |           | 28.3%                    | 52.4% | 19.3% | 0.0%   |           |       |
| PHF   | .819                          | .963  | .842  | .000   | .965      | .831                     | .670  | .606  | .000   | .740      | .750                          | .925  | .807  | .000   | .906      | .691                     | .750  | .571  | .000   | .798      | .967  |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-006 N Fair Oaks Avenue & E Duane Avenue  
 Date : 12/2/2015

**Bank 1 Count = Bikes & Peds**

| START TIME         | N Fair Oaks Avenue Southbound |        |       |      |           | E Duane Avenue Westbound |       |       |      |           | N Fair Oaks Avenue Northbound |      |        |      |           | E Duane Avenue Eastbound |       |       |      |           | Total  | Peds Total |
|--------------------|-------------------------------|--------|-------|------|-----------|--------------------------|-------|-------|------|-----------|-------------------------------|------|--------|------|-----------|--------------------------|-------|-------|------|-----------|--------|------------|
|                    | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU | RIGHT  | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL |        |            |
| 14:00              | 0                             | 0      | 0     | 2    | 0         | 1                        | 0     | 0     | 2    | 1         | 0                             | 0    | 0      | 1    | 0         | 0                        | 1     | 0     | 3    | 1         | 2      | 8          |
| 14:15              | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 1    | 0         | 0                             | 0    | 0      | 0    | 0         | 0                        | 3     | 0     | 3    | 3         | 3      | 4          |
| 14:30              | 0                             | 1      | 0     | 5    | 1         | 0                        | 0     | 0     | 3    | 0         | 0                             | 0    | 0      | 2    | 0         | 1                        | 0     | 0     | 1    | 1         | 2      | 11         |
| 14:45              | 0                             | 0      | 0     | 5    | 0         | 0                        | 0     | 0     | 2    | 0         | 0                             | 0    | 0      | 0    | 0         | 0                        | 2     | 0     | 1    | 2         | 2      | 8          |
| <b>Total</b>       | 0                             | 1      | 0     | 12   | 1         | 1                        | 0     | 0     | 8    | 1         | 0                             | 0    | 0      | 3    | 0         | 1                        | 6     | 0     | 8    | 7         | 9      | 31         |
| 15:00              | 0                             | 0      | 0     | 16   | 0         | 0                        | 0     | 0     | 3    | 0         | 0                             | 0    | 0      | 7    | 0         | 0                        | 0     | 0     | 4    | 0         | 0      | 30         |
| 15:15              | 0                             | 1      | 0     | 12   | 1         | 0                        | 1     | 0     | 4    | 1         | 0                             | 0    | 0      | 1    | 0         | 0                        | 1     | 0     | 4    | 1         | 3      | 21         |
| 15:30              | 0                             | 0      | 0     | 5    | 0         | 0                        | 7     | 0     | 5    | 7         | 0                             | 0    | 1      | 15   | 1         | 0                        | 0     | 0     | 11   | 0         | 8      | 36         |
| 15:45              | 0                             | 1      | 0     | 5    | 1         | 0                        | 0     | 0     | 14   | 0         | 0                             | 0    | 0      | 6    | 0         | 0                        | 0     | 0     | 2    | 0         | 1      | 27         |
| <b>Total</b>       | 0                             | 2      | 0     | 38   | 2         | 0                        | 8     | 0     | 26   | 8         | 0                             | 0    | 1      | 29   | 1         | 0                        | 1     | 0     | 21   | 1         | 12     | 114        |
| <b>Grand Total</b> | 0                             | 3      | 0     | 50   | 3         | 1                        | 8     | 0     | 34   | 9         | 0                             | 0    | 1      | 32   | 1         | 1                        | 7     | 0     | 29   | 8         | 21     | 145        |
| Apprch %           | 0.0%                          | 100.0% | 0.0%  |      |           | 11.1%                    | 88.9% | 0.0%  |      |           | 0.0%                          | 0.0% | 100.0% |      |           | 12.5%                    | 87.5% | 0.0%  |      |           |        |            |
| Total %            | 0.0%                          | 14.3%  | 0.0%  |      | 14.3%     | 4.8%                     | 38.1% | 0.0%  |      | 42.9%     | 0.0%                          | 0.0% | 4.8%   |      | 4.8%      | 4.8%                     | 33.3% | 0.0%  |      | 38.1%     | 100.0% |            |

| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |        |       |      |           | E Duane Avenue Westbound |        |       |      |           | N Fair Oaks Avenue Northbound |      |        |      |           | E Duane Avenue Eastbound |        |       |      |           | Total |  |
|---|-------------------------------|--------|-------|------|-----------|--------------------------|--------|-------|------|-----------|-------------------------------|------|--------|------|-----------|--------------------------|--------|-------|------|-----------|-------|--|
|   | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU | RIGHT  | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL |       |  |
| Peak Hour Analysis From 14:45 to 15:45            |                               |        |       |      |           |                          |        |       |      |           |                               |      |        |      |           |                          |        |       |      |           |       |  |
| Peak Hour For Entire Intersection Begins at 14:45 |                               |        |       |      |           |                          |        |       |      |           |                               |      |        |      |           |                          |        |       |      |           |       |  |
| 14:45   | 0                             | 0      | 0     | 5    | 0         | 0                        | 0      | 0     | 2    | 0         | 0                             | 0    | 0      | 0    | 0         | 0                        | 2      | 0     | 1    | 2         | 2     |  |
| 15:00   | 0                             | 0      | 0     | 16   | 0         | 0                        | 0      | 0     | 3    | 0         | 0                             | 0    | 0      | 7    | 0         | 0                        | 0      | 0     | 4    | 0         | 0     |  |
| 15:15   | 0                             | 1      | 0     | 12   | 1         | 0                        | 1      | 0     | 4    | 1         | 0                             | 0    | 0      | 1    | 0         | 0                        | 1      | 0     | 4    | 1         | 3     |  |
| 15:30   | 0                             | 0      | 0     | 5    | 0         | 0                        | 7      | 0     | 5    | 7         | 0                             | 0    | 1      | 15   | 1         | 0                        | 0      | 0     | 11   | 0         | 8     |  |
| Total Volume                                      | 0                             | 1      | 0     | 38   | 1         | 0                        | 8      | 0     | 14   | 8         | 0                             | 0    | 1      | 23   | 1         | 0                        | 3      | 0     | 20   | 3         | 13    |  |
| % App Total                                       | 0.0%                          | 100.0% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                          | 0.0% | 100.0% |      |           | 0.0%                     | 100.0% | 0.0%  |      |           |       |  |
| PHF   | .000                          | .250   | .000  |      | .250      | .000                     | .286   | .000  |      | .286      | .000                          | .000 | .250   |      | .250      | .000                     | .375   | .000  |      | .375      | .406  |  |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-007 Fair Oaks Ave/N. Wolfe Rd & Fair Oaks Ave  
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

| START TIME  | Fair Oaks Ave/N. Wolfe Rd Southbound |       |       |        |           | Fair Oaks Ave Westbound |      |       |        |           | Fair Oaks Ave/N. Wolfe Rd Northbound |        |       |        |           | Fair Oaks Ave Eastbound |      |       |        |           | Total  | Uturns Total |
|-------------|--------------------------------------|-------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|--------------------------------------|--------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|--------|--------------|
|             | LEFT                                 | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                                 | THRU   | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL |        |              |
| 7:00        | 0                                    | 51    | 162   | 0      | 213       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 47     | 0     | 0      | 47        | 91                      | 0    | 1     | 0      | 92        | 352    | 0            |
| 7:15        | 0                                    | 63    | 202   | 0      | 265       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 68     | 0     | 0      | 68        | 121                     | 0    | 0     | 0      | 121       | 454    | 0            |
| 7:30        | 0                                    | 54    | 160   | 0      | 214       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 127    | 0     | 0      | 127       | 186                     | 0    | 1     | 0      | 187       | 528    | 0            |
| 7:45        | 0                                    | 89    | 175   | 0      | 264       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 113    | 0     | 0      | 113       | 177                     | 0    | 4     | 0      | 181       | 558    | 0            |
| Total       | 0                                    | 257   | 699   | 0      | 956       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 355    | 0     | 0      | 355       | 575                     | 0    | 6     | 0      | 581       | 1892   | 0            |
| 8:00        | 0                                    | 75    | 170   | 0      | 245       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 106    | 0     | 0      | 106       | 157                     | 0    | 1     | 0      | 158       | 509    | 0            |
| 8:15        | 0                                    | 75    | 140   | 0      | 215       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 119    | 0     | 0      | 119       | 214                     | 0    | 1     | 0      | 215       | 549    | 0            |
| 8:30        | 0                                    | 72    | 137   | 0      | 209       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 145    | 0     | 0      | 145       | 209                     | 0    | 1     | 0      | 210       | 564    | 0            |
| 8:45        | 0                                    | 85    | 164   | 0      | 249       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 119    | 0     | 0      | 119       | 175                     | 0    | 0     | 0      | 175       | 543    | 0            |
| Total       | 0                                    | 307   | 611   | 0      | 918       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 489    | 0     | 0      | 489       | 755                     | 0    | 3     | 0      | 758       | 2165   | 0            |
| 9:00        | 0                                    | 77    | 127   | 0      | 204       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 132    | 0     | 0      | 132       | 178                     | 0    | 0     | 0      | 178       | 514    | 0            |
| 9:15        | 0                                    | 87    | 132   | 0      | 219       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 109    | 0     | 0      | 109       | 208                     | 0    | 0     | 0      | 208       | 536    | 0            |
| 9:30        | 0                                    | 76    | 107   | 0      | 183       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 109    | 0     | 0      | 109       | 167                     | 0    | 1     | 0      | 168       | 460    | 0            |
| 9:45        | 0                                    | 75    | 131   | 0      | 206       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 103    | 0     | 0      | 103       | 160                     | 0    | 1     | 0      | 161       | 470    | 0            |
| Total       | 0                                    | 315   | 497   | 0      | 812       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 453    | 0     | 0      | 453       | 713                     | 0    | 2     | 0      | 715       | 1980   | 0            |
| 16:00       | 0                                    | 110   | 183   | 0      | 293       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 63     | 0     | 0      | 63        | 141                     | 0    | 3     | 0      | 144       | 500    | 0            |
| 16:15       | 0                                    | 131   | 196   | 0      | 327       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 51     | 0     | 0      | 51        | 153                     | 0    | 3     | 0      | 156       | 534    | 0            |
| 16:30       | 0                                    | 145   | 212   | 0      | 357       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 79     | 0     | 0      | 79        | 136                     | 0    | 1     | 0      | 137       | 573    | 0            |
| 16:45       | 0                                    | 185   | 185   | 0      | 370       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 84     | 0     | 0      | 84        | 141                     | 0    | 1     | 0      | 142       | 596    | 0            |
| Total       | 0                                    | 571   | 776   | 0      | 1347      | 0                       | 0    | 0     | 0      | 0         | 0                                    | 277    | 0     | 0      | 277       | 571                     | 0    | 8     | 0      | 579       | 2203   | 0            |
| 17:00       | 0                                    | 221   | 250   | 0      | 471       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 75     | 0     | 0      | 75        | 169                     | 0    | 2     | 0      | 171       | 717    | 0            |
| 17:15       | 0                                    | 268   | 264   | 0      | 532       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 105    | 0     | 0      | 105       | 158                     | 0    | 0     | 0      | 158       | 795    | 0            |
| 17:30       | 0                                    | 251   | 286   | 0      | 537       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 95     | 0     | 0      | 95        | 165                     | 0    | 1     | 0      | 166       | 798    | 0            |
| 17:45       | 0                                    | 284   | 287   | 0      | 571       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 97     | 0     | 0      | 97        | 148                     | 0    | 4     | 0      | 152       | 820    | 0            |
| Total       | 0                                    | 1024  | 1087  | 0      | 2111      | 0                       | 0    | 0     | 0      | 0         | 0                                    | 372    | 0     | 0      | 372       | 640                     | 0    | 7     | 0      | 647       | 3130   | 0            |
| 18:00       | 0                                    | 253   | 259   | 0      | 512       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 102    | 0     | 0      | 102       | 144                     | 0    | 4     | 0      | 148       | 762    | 0            |
| 18:15       | 0                                    | 216   | 258   | 0      | 474       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 79     | 0     | 0      | 79        | 141                     | 0    | 1     | 0      | 142       | 695    | 0            |
| 18:30       | 0                                    | 198   | 232   | 0      | 430       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 103    | 0     | 0      | 103       | 169                     | 0    | 5     | 0      | 174       | 707    | 0            |
| 18:45       | 0                                    | 178   | 226   | 0      | 404       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 100    | 0     | 0      | 100       | 141                     | 0    | 1     | 0      | 142       | 646    | 0            |
| Total       | 0                                    | 845   | 975   | 0      | 1820      | 0                       | 0    | 0     | 0      | 0         | 0                                    | 384    | 0     | 0      | 384       | 595                     | 0    | 11    | 0      | 606       | 2810   | 0            |
| Grand Total | 0                                    | 3319  | 4645  | 0      | 7964      | 0                       | 0    | 0     | 0      | 0         | 0                                    | 2330   | 0     | 0      | 2330      | 3849                    | 0    | 37    | 0      | 3886      | 14180  | 0            |
| Apprch %    | 0.0%                                 | 41.7% | 58.3% | 0.0%   |           | 0.0%                    | 0.0% | 0.0%  | 0.0%   | 0.0%      | 0.0%                                 | 100.0% | 0.0%  | 0.0%   |           | 99.0%                   | 0.0% | 1.0%  | 0.0%   |           |        |              |
| Total %     | 0.0%                                 | 23.4% | 32.8% | 0.0%   | 56.2%     | 0.0%                    | 0.0% | 0.0%  | 0.0%   | 0.0%      | 0.0%                                 | 16.4%  | 0.0%  | 0.0%   | 16.4%     | 27.1%                   | 0.0% | 0.3%  | 0.0%   | 27.4%     | 100.0% |              |

| AM PEAK HOUR                                      | Fair Oaks Ave/N. Wolfe Rd Southbound |       |       |        |           | Fair Oaks Ave Westbound |      |       |        |           | Fair Oaks Ave/N. Wolfe Rd Northbound |        |       |        |           | Fair Oaks Ave Eastbound |      |       |        |           | Total |
|---|--------------------------------------|-------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|--------------------------------------|--------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|-------|
| START TIME  | LEFT                                 | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                                 | THRU   | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 07:45 to 08:45            |                                      |       |       |        |           |                         |      |       |        |           |                                      |        |       |        |           |                         |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 07:45 |                                      |       |       |        |           |                         |      |       |        |           |                                      |        |       |        |           |                         |      |       |        |           |       |
| 7:45  | 0                                    | 89    | 175   | 0      | 264       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 113    | 0     | 0      | 113       | 177                     | 0    | 4     | 0      | 181       | 558   |
| 8:00  | 0                                    | 75    | 170   | 0      | 245       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 106    | 0     | 0      | 106       | 157                     | 0    | 1     | 0      | 158       | 509   |
| 8:15  | 0                                    | 75    | 140   | 0      | 215       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 119    | 0     | 0      | 119       | 214                     | 0    | 1     | 0      | 215       | 549   |
| 8:30  | 0                                    | 72    | 137   | 0      | 209       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 145    | 0     | 0      | 145       | 209                     | 0    | 1     | 0      | 210       | 564   |
| Total Volume                                      | 0                                    | 311   | 622   | 0      | 933       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 483    | 0     | 0      | 483       | 757                     | 0    | 7     | 0      | 764       | 2180  |
| % App Total                                       | 0.0%                                 | 33.3% | 66.7% | 0.0%   |           | 0.0%                    | 0.0% | 0.0%  | 0.0%   | 0.0%      | 0.0%                                 | 100.0% | 0.0%  | 0.0%   |           | 99.1%                   | 0.0% | 0.9%  | 0.0%   |           |       |
| PHF   | .000                                 | .874  | .889  | .000   | .884      | .000                    | .000 | .000  | .000   | .000      | .000                                 | .833   | .000  | .000   | .833      | .884                    | .000 | .438  | .000   | .888      | .966  |

| PM PEAK HOUR                                      | Fair Oaks Ave/N. Wolfe Rd Southbound |       |       |        |           | Fair Oaks Ave Westbound |      |       |        |           | Fair Oaks Ave/N. Wolfe Rd Northbound |        |       |        |           | Fair Oaks Ave Eastbound |      |       |        |           | Total |
|---|--------------------------------------|-------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|--------------------------------------|--------|-------|--------|-----------|-------------------------|------|-------|--------|-----------|-------|
| START TIME  | LEFT                                 | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                                 | THRU   | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                                      |       |       |        |           |                         |      |       |        |           |                                      |        |       |        |           |                         |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                                      |       |       |        |           |                         |      |       |        |           |                                      |        |       |        |           |                         |      |       |        |           |       |
| 17:15   | 0                                    | 268   | 264   | 0      | 532       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 105    | 0     | 0      | 105       | 158                     | 0    | 0     | 0      | 158       | 795   |
| 17:30   | 0                                    | 251   | 286   | 0      | 537       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 95     | 0     | 0      | 95        | 165                     | 0    | 1     | 0      | 166       | 798   |
| 17:45   | 0                                    | 284   | 287   | 0      | 571       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 97     | 0     | 0      | 97        | 148                     | 0    | 4     | 0      | 152       | 820   |
| 18:00   | 0                                    | 253   | 259   | 0      | 512       | 0                       | 0    | 0     | 0      | 0         | 0                                    | 102    | 0     | 0      | 102       | 144                     | 0    | 4     | 0      | 148       | 762   |
| Total Volume                                      | 0                                    | 1056  | 1096  | 0      | 2152      | 0                       | 0    | 0     | 0      | 0         | 0                                    | 399    | 0     | 0      | 399       | 615                     | 0    | 9     | 0      | 624       | 3175  |
| % App Total                                       | 0.0%                                 | 49.1% | 50.9% | 0.0%   |           | 0.0%                    | 0.0% | 0.0%  | 0.0%   | 0.0%      | 0.0%                                 | 100.0% | 0.0%  | 0.0%   |           | 98.6%                   | 0.0% | 1.4%  | 0.0%   |           |       |
| PHF   | .000                                 | .930  | .955  | .000   | .942      | .000                    | .000 | .000  | .000   | .000      | .000                                 | .950   | .000  | .000   | .950      | .932                    | .000 | .563  | .000   | .940      | .968  |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-007 Fair Oaks Ave/N. Wolfe Rd & Fair Oaks Ave  
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

| START TIME  | Fair Oaks Ave/N. Wolfe Rd Southbound |       |       |      |           | Fair Oaks Ave Westbound |      |       |      |           | Fair Oaks Ave/N. Wolfe Rd Northbound |       |       |      |           | Fair Oaks Ave Eastbound |      |       |      |           | Total  | Peds Total |
|-------------|--------------------------------------|-------|-------|------|-----------|-------------------------|------|-------|------|-----------|--------------------------------------|-------|-------|------|-----------|-------------------------|------|-------|------|-----------|--------|------------|
|             | LEFT                                 | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                                 | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU | RIGHT | PEDS | APP.TOTAL |        |            |
| 7:00        | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 1     | 0     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 2      | 0          |
| 7:15        | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0      | 0          |
| 7:30        | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 2     | 0     | 2    | 2         | 2                       | 0    | 0     | 1    | 2         | 5      | 3          |
| 7:45        | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 1      | 0          |
| Total       | 0                                    | 0     | 3     | 0    | 3         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 3     | 0     | 2    | 3         | 2                       | 0    | 0     | 1    | 2         | 8      | 3          |
| 8:00        | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 2    | 0         | 0                       | 0    | 0     | 0    | 0         | 1      | 2          |
| 8:15        | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0      | 0          |
| 8:30        | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 1    | 0         | 0                       | 0    | 0     | 1    | 0         | 1      | 2          |
| 8:45        | 0                                    | 1     | 0     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 1     | 0     | 1    | 1         | 0                       | 0    | 0     | 1    | 0         | 2      | 2          |
| Total       | 0                                    | 1     | 2     | 0    | 3         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 1     | 0     | 4    | 1         | 0                       | 0    | 0     | 2    | 0         | 4      | 6          |
| 9:00        | 0                                    | 1     | 1     | 0    | 2         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 3    | 0         | 0                       | 0    | 0     | 0    | 0         | 2      | 3          |
| 9:15        | 0                                    | 0     | 2     | 0    | 2         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 2    | 0         | 2                       | 0    | 0     | 1    | 2         | 4      | 3          |
| 9:30        | 0                                    | 1     | 1     | 0    | 2         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 4    | 0         | 0                       | 0    | 0     | 1    | 0         | 2      | 5          |
| 9:45        | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 0    | 0         | 1                       | 0    | 0     | 0    | 1         | 2      | 0          |
| Total       | 0                                    | 2     | 5     | 0    | 7         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 9    | 0         | 3                       | 0    | 0     | 2    | 3         | 10     | 11         |
| 16:00       | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 2    | 0         | 1                       | 0    | 0     | 2    | 1         | 1      | 4          |
| 16:15       | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 1     | 0     | 1    | 1         | 0                       | 0    | 0     | 0    | 0         | 1      | 1          |
| 16:30       | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 1    | 0         | 0                       | 0    | 0     | 1    | 0         | 0      | 2          |
| 16:45       | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 1    | 0         | 0                       | 0    | 0     | 1    | 0         | 0      | 2          |
| Total       | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 1     | 0     | 5    | 1         | 1                       | 0    | 0     | 4    | 1         | 2      | 9          |
| 17:00       | 0                                    | 1     | 1     | 0    | 2         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 5    | 0         | 0                       | 0    | 0     | 1    | 0         | 2      | 6          |
| 17:15       | 0                                    | 1     | 0     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 7    | 0         | 0                       | 0    | 0     | 3    | 0         | 1      | 10         |
| 17:30       | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 1     | 0     | 3    | 1         | 0                       | 0    | 1     | 0    | 1         | 3      | 3          |
| 17:45       | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 1                                    | 0     | 0     | 13   | 1         | 0                       | 0    | 0     | 7    | 0         | 1      | 20         |
| Total       | 0                                    | 2     | 2     | 0    | 4         | 0                       | 0    | 0     | 0    | 0         | 1                                    | 1     | 0     | 28   | 2         | 0                       | 0    | 1     | 11   | 1         | 7      | 39         |
| 18:00       | 0                                    | 1     | 0     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 1                                    | 1     | 0     | 0    | 2         | 0                       | 0    | 1     | 0    | 1         | 4      | 0          |
| 18:15       | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 1     | 0     | 8    | 1         | 0                       | 0    | 0     | 2    | 0         | 2      | 10         |
| 18:30       | 0                                    | 1     | 0     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 6    | 0         | 1                       | 0    | 2     | 2    | 3         | 4      | 8          |
| 18:45       | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 2     | 0     | 2    | 2         | 0                       | 0    | 1     | 0    | 1         | 4      | 2          |
| Total       | 0                                    | 2     | 2     | 0    | 4         | 0                       | 0    | 0     | 0    | 0         | 1                                    | 4     | 0     | 16   | 5         | 1                       | 0    | 4     | 4    | 5         | 14     | 20         |
| Grand Total | 0                                    | 7     | 14    | 0    | 21        | 0                       | 0    | 0     | 0    | 0         | 2                                    | 10    | 0     | 64   | 12        | 7                       | 0    | 5     | 24   | 12        | 45     | 88         |
| Apprch %    | 0.0%                                 | 33.3% | 66.7% |      |           | 0.0%                    | 0.0% | 0.0%  |      |           | 16.7%                                | 83.3% | 0.0%  |      |           | 58.3%                   | 0.0% | 41.7% |      |           |        |            |
| Total %     | 0.0%                                 | 15.6% | 31.1% |      | 46.7%     | 0.0%                    | 0.0% | 0.0%  |      | 0.0%      | 4.4%                                 | 22.2% | 0.0%  |      | 26.7%     | 15.6%                   | 0.0% | 11.1% |      | 26.7%     | 100.0% |            |

| AM PEAK HOUR                                      | Fair Oaks Ave/N. Wolfe Rd Southbound |      |        |      |           | Fair Oaks Ave Westbound |      |       |      |           | Fair Oaks Ave/N. Wolfe Rd Northbound |      |       |      |           | Fair Oaks Ave Eastbound |      |       |      |           | Total |
|---|--------------------------------------|------|--------|------|-----------|-------------------------|------|-------|------|-----------|--------------------------------------|------|-------|------|-----------|-------------------------|------|-------|------|-----------|-------|
| START TIME  | LEFT                                 | THRU | RIGHT  | PEDS | APP.TOTAL | LEFT                    | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                                 | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 07:45 to 08:45            |                                      |      |        |      |           |                         |      |       |      |           |                                      |      |       |      |           |                         |      |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 07:45 |                                      |      |        |      |           |                         |      |       |      |           |                                      |      |       |      |           |                         |      |       |      |           |       |
| 7:45  | 0                                    | 0    | 1      | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0    | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 1     |
| 8:00  | 0                                    | 0    | 1      | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0    | 0     | 2    | 0         | 0                       | 0    | 0     | 0    | 0         | 1     |
| 8:15  | 0                                    | 0    | 0      | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0    | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 0     |
| 8:30  | 0                                    | 0    | 1      | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0    | 0     | 1    | 0         | 0                       | 0    | 0     | 1    | 0         | 1     |
| Total Volume                                      | 0                                    | 0    | 3      | 0    | 3         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0    | 0     | 3    | 0         | 0                       | 0    | 0     | 1    | 0         | 3     |
| % App Total                                       | 0.0%                                 | 0.0% | 100.0% |      |           | 0.0%                    | 0.0% | 0.0%  |      |           | 0.0%                                 | 0.0% | 0.0%  |      |           | 0.0%                    | 0.0% | 0.0%  |      |           |       |
| PHF   | .000                                 | .000 | .750   |      | .750      | .000                    | .000 | .000  |      | .000      | .000                                 | .000 | .000  | .000 | .000      | .000                    | .000 | .000  |      | .000      | .750  |

| PM PEAK HOUR                                      | Fair Oaks Ave/N. Wolfe Rd Southbound |       |       |      |           | Fair Oaks Ave Westbound |      |       |      |           | Fair Oaks Ave/N. Wolfe Rd Northbound |       |       |      |           | Fair Oaks Ave Eastbound |      |        |      |           | Total |
|---|--------------------------------------|-------|-------|------|-----------|-------------------------|------|-------|------|-----------|--------------------------------------|-------|-------|------|-----------|-------------------------|------|--------|------|-----------|-------|
| START TIME  | LEFT                                 | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                                 | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU | RIGHT  | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                                      |       |       |      |           |                         |      |       |      |           |                                      |       |       |      |           |                         |      |        |      |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                                      |       |       |      |           |                         |      |       |      |           |                                      |       |       |      |           |                         |      |        |      |           |       |
| 17:15   | 0                                    | 1     | 0     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 0     | 0     | 7    | 0         | 0                       | 0    | 0      | 3    | 0         | 1     |
| 17:30   | 0                                    | 0     | 1     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 0                                    | 1     | 0     | 3    | 1         | 0                       | 0    | 1      | 0    | 1         | 3     |
| 17:45   | 0                                    | 0     | 0     | 0    | 0         | 0                       | 0    | 0     | 0    | 0         | 1                                    | 0     | 0     | 13   | 1         | 0                       | 0    | 0      | 7    | 0         | 1     |
| 18:00   | 0                                    | 1     | 0     | 0    | 1         | 0                       | 0    | 0     | 0    | 0         | 1                                    | 1     | 0     | 0    | 2         | 0                       | 0    | 1      | 0    | 1         | 4     |
| Total Volume                                      | 0                                    | 2     | 1     | 0    | 3         | 0                       | 0    | 0     | 0    | 0         | 2                                    | 2     | 0     | 23   | 4         | 0                       | 0    | 2      | 10   | 2         | 9     |
| % App Total                                       | 0.0%                                 | 66.7% | 33.3% |      |           | 0.0%                    | 0.0% | 0.0%  |      |           | 50.0%                                | 50.0% | 0.0%  |      |           | 0.0%                    | 0.0% | 100.0% |      |           |       |
| PHF   | .000                                 | .500  | .250  |      | .750      | .000                    | .000 | .000  |      | .000      | .500                                 | .500  | .000  |      | .500      | .000                    | .000 | .500   |      | .500      | .563  |





### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Turns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-007 N Fair Oaks Avenue & N Wolfe Road  
 Date : 12/2/2015

**Bank 1 Count = Bikes & Peds**

| START TIME         | N Fair Oaks Avenue Southbound |        |       |      |           | N Wolfe Road Westbound |      |        |      |           | N Fair Oaks Avenue Northbound |        |       |      |           | N Wolfe Road Eastbound |      |       |      |           | Total  | Peds Total |
|--------------------|-------------------------------|--------|-------|------|-----------|------------------------|------|--------|------|-----------|-------------------------------|--------|-------|------|-----------|------------------------|------|-------|------|-----------|--------|------------|
|                    | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU | RIGHT  | PEDS | APP.TOTAL | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU | RIGHT | PEDS | APP.TOTAL |        |            |
| 14:00              | 0                             | 1      | 0     | 0    | 1         | 0                      | 0    | 0      | 1    | 0         | 0                             | 1      | 0     | 1    | 1         | 0                      | 0    | 0     | 0    | 0         | 2      | 2          |
| 14:15              | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0      | 0    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0     | 0    | 0         | 0      | 0          |
| 14:30              | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0      | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0     | 0    | 0         | 0      | 1          |
| 14:45              | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0      | 0    | 0         | 0                             | 0      | 0     | 1    | 0         | 0                      | 0    | 0     | 0    | 0         | 0      | 1          |
| <b>Total</b>       | 0                             | 1      | 0     | 0    | 1         | 0                      | 0    | 0      | 2    | 0         | 0                             | 1      | 0     | 2    | 1         | 0                      | 0    | 0     | 0    | 0         | 2      | 4          |
| 15:00              | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0      | 0    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0     | 0    | 0         | 0      | 0          |
| 15:15              | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 1      | 0    | 1         | 0                             | 1      | 0     | 0    | 1         | 0                      | 0    | 0     | 0    | 0         | 2      | 0          |
| 15:30              | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0      | 1    | 0         | 0                             | 1      | 0     | 1    | 1         | 0                      | 0    | 0     | 0    | 0         | 1      | 2          |
| 15:45              | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0      | 2    | 0         | 0                             | 0      | 0     | 1    | 0         | 0                      | 0    | 0     | 0    | 0         | 0      | 3          |
| <b>Total</b>       | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 1      | 3    | 1         | 0                             | 2      | 0     | 2    | 2         | 0                      | 0    | 0     | 0    | 0         | 3      | 5          |
| <b>Grand Total</b> | 0                             | 1      | 0     | 0    | 1         | 0                      | 0    | 1      | 5    | 1         | 0                             | 3      | 0     | 4    | 3         | 0                      | 0    | 0     | 0    | 0         | 5      | 9          |
| Apprch %           | 0.0%                          | 100.0% | 0.0%  |      |           | 0.0%                   | 0.0% | 100.0% |      |           | 0.0%                          | 100.0% | 0.0%  |      |           | 0.0%                   | 0.0% | 0.0%  |      |           |        |            |
| Total %            | 0.0%                          | 20.0%  | 0.0%  |      | 20.0%     | 0.0%                   | 0.0% | 20.0%  |      | 20.0%     | 0.0%                          | 60.0%  | 0.0%  |      | 60.0%     | 0.0%                   | 0.0% | 0.0%  |      | 0.0%      | 100.0% |            |

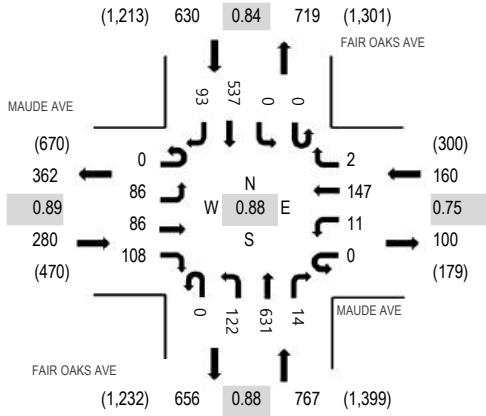
| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |      |       |      |           | N Wolfe Road Westbound |      |        |      |           | N Fair Oaks Avenue Northbound |        |       |      |           | N Wolfe Road Eastbound |      |       |      |           | Total |   |
|---|-------------------------------|------|-------|------|-----------|------------------------|------|--------|------|-----------|-------------------------------|--------|-------|------|-----------|------------------------|------|-------|------|-----------|-------|---|
|   | LEFT                          | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU | RIGHT  | PEDS | APP.TOTAL | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                   | THRU | RIGHT | PEDS | APP.TOTAL |       |   |
| Peak Hour Analysis From 15:00 to 16:00            |                               |      |       |      |           |                        |      |        |      |           |                               |        |       |      |           |                        |      |       |      |           |       |   |
| Peak Hour For Entire Intersection Begins at 15:00 |                               |      |       |      |           |                        |      |        |      |           |                               |        |       |      |           |                        |      |       |      |           |       |   |
| 15:00   | 0                             | 0    | 0     | 0    | 0         | 0                      | 0    | 0      | 0    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                      | 0    | 0     | 0    | 0         | 0     | 0 |
| 15:15   | 0                             | 0    | 0     | 0    | 0         | 0                      | 0    | 1      | 0    | 1         | 0                             | 1      | 0     | 0    | 1         | 0                      | 0    | 0     | 0    | 0         | 0     | 2 |
| 15:30   | 0                             | 0    | 0     | 0    | 0         | 0                      | 0    | 0      | 1    | 0         | 0                             | 1      | 0     | 1    | 1         | 0                      | 0    | 0     | 0    | 0         | 0     | 1 |
| 15:45   | 0                             | 0    | 0     | 0    | 0         | 0                      | 0    | 0      | 2    | 0         | 0                             | 0      | 0     | 1    | 0         | 0                      | 0    | 0     | 0    | 0         | 0     | 0 |
| <b>Total Volume</b>                               | 0                             | 0    | 0     | 0    | 0         | 0                      | 0    | 1      | 3    | 1         | 0                             | 2      | 0     | 2    | 2         | 0                      | 0    | 0     | 0    | 0         | 0     | 3 |
| <b>% App Total</b>                                | 0.0%                          | 0.0% | 0.0%  |      |           | 0.0%                   | 0.0% | 100.0% |      |           | 0.0%                          | 100.0% | 0.0%  |      |           | 0.0%                   | 0.0% | 0.0%  |      |           |       |   |
| PHF   | .000                          | .000 | .000  |      | .000      | .000                   | .000 | .250   |      | .250      | .000                          | .500   | .000  |      | .500      | .000                   | .000 | .000  |      | .000      | .375  |   |



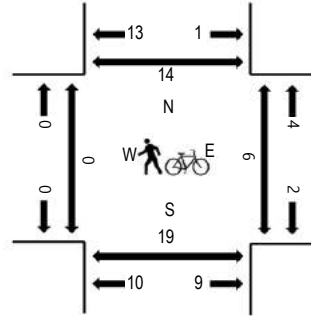
(303) 216-2439  
www.alltrafficdata.net

Location: 14 FAIR OAKS AVE & MAUDE AVE AM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | FAIR OAKS AVE Northbound |      |      |       | FAIR OAKS AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |   |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|---|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |              | West                 | East | South | North |   |
| 7:00 AM             | 0                   | 13   | 15   | 17    | 0                   | 0    | 21   | 2     | 0                        | 14   | 79   | 4     | 0                        | 0    | 1    | 144   | 15    | 325          | 1,634                | 0    | 1     | 3     | 1 |
| 7:15 AM             | 0                   | 16   | 11   | 14    | 0                   | 8    | 16   | 0     | 0                        | 23   | 98   | 1     | 0                        | 0    | 0    | 133   | 20    | 340          | 1,726                | 0    | 0     | 2     | 1 |
| 7:30 AM             | 0                   | 32   | 19   | 27    | 0                   | 4    | 29   | 0     | 0                        | 26   | 163  | 2     | 0                        | 0    | 0    | 127   | 18    | 447          | 1,837                | 0    | 0     | 2     | 0 |
| 7:45 AM             | 0                   | 26   | 19   | 25    | 0                   | 2    | 52   | 2     | 0                        | 32   | 167  | 4     | 0                        | 0    | 0    | 163   | 30    | 522          | 1,831                | 0    | 1     | 8     | 1 |
| 8:00 AM             | 0                   | 17   | 24   | 38    | 0                   | 3    | 32   | 0     | 0                        | 24   | 121  | 3     | 0                        | 0    | 0    | 134   | 21    | 417          | 1,748                | 0    | 1     | 6     | 1 |
| 8:15 AM             | 0                   | 11   | 24   | 18    | 0                   | 2    | 34   | 0     | 0                        | 40   | 180  | 5     | 0                        | 0    | 0    | 113   | 24    | 451          |                      | 0    | 2     | 2     | 0 |
| 8:30 AM             | 0                   | 17   | 18   | 23    | 0                   | 3    | 38   | 1     | 0                        | 30   | 181  | 2     | 0                        | 2    | 0    | 103   | 23    | 441          |                      | 1    | 2     | 6     | 0 |
| 8:45 AM             | 0                   | 9    | 18   | 19    | 0                   | 4    | 46   | 1     | 0                        | 30   | 165  | 5     | 0                        | 2    | 0    | 108   | 32    | 439          |                      | 0    | 0     | 3     | 1 |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 3    | 1     | 0          | 0    | 1    | 0     | 5     |
| Lights             | 0         | 81   | 81   | 105   | 0         | 11   | 143  | 2     | 0          | 116  | 617  | 13    | 0          | 0    | 521  | 87    | 1,777 |
| Mediums            | 0         | 5    | 5    | 3     | 0         | 0    | 4    | 0     | 0          | 6    | 11   | 0     | 0          | 0    | 15   | 6     | 55    |
| Total              | 0         | 86   | 86   | 108   | 0         | 11   | 147  | 2     | 0          | 122  | 631  | 14    | 0          | 0    | 537  | 93    | 1,837 |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Turns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-008 N Fair Oaks Avenue & E Maude Avenue  
 Date : 12/2/2015

**Unshifted Count = All Vehicles & Turns**

| START TIME         | N Fair Oaks Avenue Southbound |       |       |        |           | E Maude Avenue Westbound |       |       |        |           | N Fair Oaks Avenue Northbound |       |       |        |           | E Maude Avenue Eastbound |       |       |        |           | Total  | UtURNS Total |
|--------------------|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|--------|--------------|
|                    | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL |        |              |
| 14:00              | 2                             | 142   | 20    | 0      | 164       | 3                        | 17    | 1     | 0      | 21        | 17                            | 89    | 2     | 0      | 108       | 18                       | 26    | 14    | 0      | 58        | 351    | 0            |
| 14:15              | 2                             | 143   | 19    | 0      | 164       | 3                        | 18    | 1     | 0      | 22        | 16                            | 99    | 3     | 0      | 118       | 26                       | 29    | 21    | 0      | 76        | 380    | 0            |
| 14:30              | 1                             | 151   | 21    | 0      | 173       | 7                        | 17    | 2     | 0      | 26        | 27                            | 99    | 3     | 0      | 129       | 19                       | 26    | 16    | 0      | 61        | 389    | 0            |
| 14:45              | 0                             | 144   | 22    | 0      | 166       | 0                        | 13    | 4     | 0      | 17        | 12                            | 130   | 4     | 0      | 146       | 22                       | 30    | 25    | 0      | 77        | 406    | 0            |
| <b>Total</b>       | 5                             | 580   | 82    | 0      | 667       | 13                       | 65    | 8     | 0      | 86        | 72                            | 417   | 12    | 0      | 501       | 85                       | 111   | 76    | 0      | 272       | 1526   | 0            |
| 15:00              | 0                             | 149   | 21    | 0      | 170       | 3                        | 18    | 3     | 0      | 24        | 19                            | 129   | 1     | 0      | 149       | 14                       | 31    | 29    | 0      | 74        | 417    | 0            |
| 15:15              | 1                             | 167   | 19    | 0      | 187       | 5                        | 23    | 1     | 0      | 29        | 18                            | 106   | 2     | 0      | 126       | 14                       | 35    | 28    | 0      | 77        | 419    | 0            |
| 15:30              | 2                             | 159   | 17    | 0      | 178       | 2                        | 20    | 1     | 0      | 23        | 11                            | 130   | 7     | 0      | 148       | 24                       | 30    | 31    | 0      | 85        | 434    | 0            |
| 15:45              | 0                             | 164   | 18    | 0      | 182       | 2                        | 15    | 0     | 0      | 17        | 20                            | 128   | 1     | 0      | 149       | 18                       | 31    | 24    | 0      | 73        | 421    | 0            |
| <b>Total</b>       | 3                             | 639   | 75    | 0      | 717       | 12                       | 76    | 5     | 0      | 93        | 68                            | 493   | 11    | 0      | 572       | 70                       | 127   | 112   | 0      | 309       | 1691   | 0            |
| <b>Grand Total</b> | 8                             | 1219  | 157   | 0      | 1384      | 25                       | 141   | 13    | 0      | 179       | 140                           | 910   | 23    | 0      | 1073      | 155                      | 238   | 188   | 0      | 581       | 3217   | 0            |
| Apprch %           | 0.6%                          | 88.1% | 11.3% | 0.0%   |           | 14.0%                    | 78.8% | 7.3%  | 0.0%   |           | 13.0%                         | 84.8% | 2.1%  | 0.0%   |           | 26.7%                    | 41.0% | 32.4% | 0.0%   |           |        |              |
| Total %            | 0.2%                          | 37.9% | 4.9%  | 0.0%   | 43.0%     | 0.8%                     | 4.4%  | 0.4%  | 0.0%   | 5.6%      | 4.4%                          | 28.3% | 0.7%  | 0.0%   | 33.4%     | 4.8%                     | 7.4%  | 5.8%  | 0.0%   | 18.1%     | 100.0% |              |

| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |       |       |        |           | E Maude Avenue Westbound |       |       |        |           | N Fair Oaks Avenue Northbound |       |       |        |           | E Maude Avenue Eastbound |       |       |        |           | Total |
|---|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-------------------------------|-------|-------|--------|-----------|--------------------------|-------|-------|--------|-----------|-------|
|   | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                          | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                     | THRU  | RIGHT | UTURNS | APP.TOTAL |       |
| Peak Hour Analysis From 15:00 to 16:00            |                               |       |       |        |           |                          |       |       |        |           |                               |       |       |        |           |                          |       |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 15:00 |                               |       |       |        |           |                          |       |       |        |           |                               |       |       |        |           |                          |       |       |        |           |       |
| 15:00   | 0                             | 149   | 21    | 0      | 170       | 3                        | 18    | 3     | 0      | 24        | 19                            | 129   | 1     | 0      | 149       | 14                       | 31    | 29    | 0      | 74        | 417   |
| 15:15   | 1                             | 167   | 19    | 0      | 187       | 5                        | 23    | 1     | 0      | 29        | 18                            | 106   | 2     | 0      | 126       | 14                       | 35    | 28    | 0      | 77        | 419   |
| 15:30   | 2                             | 159   | 17    | 0      | 178       | 2                        | 20    | 1     | 0      | 23        | 11                            | 130   | 7     | 0      | 148       | 24                       | 30    | 31    | 0      | 85        | 434   |
| 15:45   | 0                             | 164   | 18    | 0      | 182       | 2                        | 15    | 0     | 0      | 17        | 20                            | 128   | 1     | 0      | 149       | 18                       | 31    | 24    | 0      | 73        | 421   |
| Total Volume                                      | 3                             | 639   | 75    | 0      | 717       | 12                       | 76    | 5     | 0      | 93        | 68                            | 493   | 11    | 0      | 572       | 70                       | 127   | 112   | 0      | 309       | 1691  |
| % App Total                                       | 0.4%                          | 89.1% | 10.5% | 0.0%   |           | 12.9%                    | 81.7% | 5.4%  | 0.0%   |           | 11.9%                         | 86.2% | 1.9%  | 0.0%   |           | 22.7%                    | 41.1% | 36.2% | 0.0%   |           |       |
| PHF   | .375                          | .957  | .893  | .000   | .959      | .600                     | .826  | .417  | .000   | .802      | .850                          | .948  | .393  | .000   | .960      | .729                     | .907  | .903  | .000   | .909      | .974  |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Turns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-008 N Fair Oaks Avenue & E Maude Avenue  
 Date : 12/2/2015

**Bank 1 Count = Bikes & Peds**

| START TIME         | N Fair Oaks Avenue Southbound |       |       |      |           | E Maude Avenue Westbound |        |       |      |           | N Fair Oaks Avenue Northbound |        |       |      |           | E Maude Avenue Eastbound |       |       |      |           | Total  | Peds Total |
|--------------------|-------------------------------|-------|-------|------|-----------|--------------------------|--------|-------|------|-----------|-------------------------------|--------|-------|------|-----------|--------------------------|-------|-------|------|-----------|--------|------------|
|                    | LEFT                          | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL |        |            |
| 14:00              | 1                             | 2     | 0     | 0    | 3         | 0                        | 0      | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 1                        | 0     | 0     | 1    | 1         | 4      | 2          |
| 14:15              | 0                             | 0     | 0     | 0    | 0         | 0                        | 0      | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 3    | 0         | 0      | 4          |
| 14:30              | 0                             | 0     | 0     | 0    | 0         | 0                        | 0      | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 0    | 0         | 0      | 3          |
| 14:45              | 0                             | 0     | 0     | 1    | 0         | 0                        | 1      | 0     | 0    | 1         | 0                             | 0      | 0     | 2    | 0         | 0                        | 0     | 0     | 1    | 0         | 1      | 4          |
| <b>Total</b>       | 1                             | 2     | 0     | 1    | 3         | 0                        | 1      | 0     | 3    | 1         | 0                             | 0      | 0     | 4    | 0         | 1                        | 0     | 0     | 5    | 1         | 5      | 13         |
| 15:00              | 0                             | 0     | 0     | 3    | 0         | 0                        | 0      | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 2    | 0         | 0      | 6          |
| 15:15              | 0                             | 0     | 0     | 4    | 0         | 0                        | 0      | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 1                        | 0     | 0     | 3    | 1         | 1      | 8          |
| 15:30              | 0                             | 0     | 0     | 1    | 0         | 0                        | 0      | 0     | 4    | 0         | 0                             | 1      | 0     | 12   | 1         | 0                        | 1     | 0     | 4    | 1         | 2      | 21         |
| 15:45              | 0                             | 0     | 0     | 2    | 0         | 0                        | 1      | 0     | 1    | 1         | 0                             | 0      | 0     | 12   | 0         | 5                        | 0     | 0     | 4    | 5         | 6      | 19         |
| <b>Total</b>       | 0                             | 0     | 0     | 10   | 0         | 0                        | 1      | 0     | 7    | 1         | 0                             | 1      | 0     | 24   | 1         | 1                        | 6     | 0     | 13   | 7         | 9      | 54         |
| <b>Grand Total</b> | 1                             | 2     | 0     | 11   | 3         | 0                        | 2      | 0     | 10   | 2         | 0                             | 1      | 0     | 28   | 1         | 2                        | 6     | 0     | 18   | 8         | 14     | 67         |
| Apprch %           | 33.3%                         | 66.7% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                          | 100.0% | 0.0%  |      |           | 25.0%                    | 75.0% | 0.0%  |      |           |        |            |
| Total %            | 7.1%                          | 14.3% | 0.0%  |      | 21.4%     | 0.0%                     | 14.3%  | 0.0%  |      | 14.3%     | 0.0%                          | 7.1%   | 0.0%  |      | 7.1%      | 14.3%                    | 42.9% | 0.0%  |      | 57.1%     | 100.0% |            |

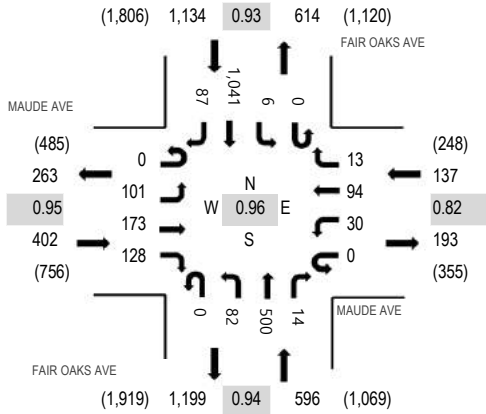
| PM PEAK HOUR                                      | N Fair Oaks Avenue Southbound |      |       |      |           | E Maude Avenue Westbound |        |       |      |           | N Fair Oaks Avenue Northbound |        |       |      |           | E Maude Avenue Eastbound |       |       |      |           | Total |
|---|-------------------------------|------|-------|------|-----------|--------------------------|--------|-------|------|-----------|-------------------------------|--------|-------|------|-----------|--------------------------|-------|-------|------|-----------|-------|
|   | LEFT                          | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                          | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                     | THRU  | RIGHT | PEDS | APP.TOTAL |       |
| Peak Hour Analysis From 15:00 to 16:00            |                               |      |       |      |           |                          |        |       |      |           |                               |        |       |      |           |                          |       |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 15:00 |                               |      |       |      |           |                          |        |       |      |           |                               |        |       |      |           |                          |       |       |      |           |       |
| 15:00   | 0                             | 0    | 0     | 3    | 0         | 0                        | 0      | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 0                        | 0     | 0     | 2    | 0         | 0     |
| 15:15   | 0                             | 0    | 0     | 4    | 0         | 0                        | 0      | 0     | 1    | 0         | 0                             | 0      | 0     | 0    | 0         | 1                        | 0     | 0     | 3    | 1         | 1     |
| 15:30   | 0                             | 0    | 0     | 1    | 0         | 0                        | 0      | 0     | 4    | 0         | 0                             | 1      | 0     | 12   | 1         | 0                        | 1     | 0     | 4    | 1         | 2     |
| 15:45   | 0                             | 0    | 0     | 2    | 0         | 0                        | 1      | 0     | 1    | 1         | 0                             | 0      | 0     | 12   | 0         | 0                        | 5     | 0     | 4    | 5         | 6     |
| <b>Total Volume</b>                               | 0                             | 0    | 0     | 10   | 0         | 0                        | 1      | 0     | 7    | 1         | 0                             | 1      | 0     | 24   | 1         | 1                        | 6     | 0     | 13   | 7         | 9     |
| <b>% App Total</b>                                | 0.0%                          | 0.0% | 0.0%  |      |           | 0.0%                     | 100.0% | 0.0%  |      |           | 0.0%                          | 100.0% | 0.0%  |      |           | 14.3%                    | 85.7% | 0.0%  |      |           |       |
| PHF   | .000                          | .000 | .000  |      | .000      | .000                     | .250   | .000  |      | .250      | .000                          | .250   | .000  |      | .250      | .250                     | .300  | .000  |      | .350      | .375  |



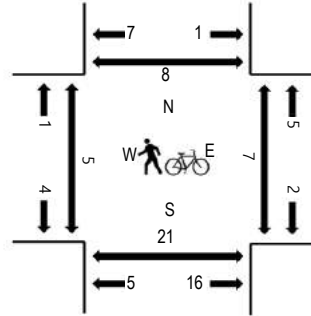
(303) 216-2439  
www.alltrafficdata.net

Location: 14 FAIR OAKS AVE & MAUDE AVE PM  
Date and Start Time: Tuesday, May 16, 2017  
Peak Hour: 05:00 PM - 06:00 PM  
Peak 15-Minutes: 05:30 PM - 05:45 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | MAUDE AVE Westbound |      |      |       | FAIR OAKS AVE Northbound |      |      |       | FAIR OAKS AVE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |              | West                 | East | South | North |
| 4:00 PM             | 0                   | 35   | 39   | 18    | 0                   | 4    | 21   | 0     | 0                        | 10   | 106  | 2     | 0                        | 0    | 132  | 14    | 381   | 1,610        | 0                    | 2    | 2     | 3     |
| 4:15 PM             | 0                   | 22   | 35   | 36    | 0                   | 0    | 20   | 2     | 0                        | 20   | 98   | 1     | 0                        | 0    | 137  | 13    | 384   | 1,765        | 0                    | 2    | 4     | 1     |
| 4:30 PM             | 0                   | 21   | 28   | 16    | 0                   | 11   | 18   | 1     | 0                        | 18   | 97   | 5     | 0                        | 2    | 153  | 11    | 381   | 1,957        | 2                    | 0    | 1     | 1     |
| 4:45 PM             | 0                   | 30   | 47   | 27    | 0                   | 7    | 27   | 0     | 0                        | 20   | 94   | 2     | 0                        | 1    | 179  | 30    | 464   | 2,169        | 1                    | 2    | 1     | 3     |
| 5:00 PM             | 0                   | 22   | 51   | 36    | 0                   | 7    | 17   | 2     | 0                        | 19   | 125  | 3     | 0                        | 3    | 222  | 29    | 536   | 2,269        | 1                    | 3    | 10    | 0     |
| 5:15 PM             | 0                   | 35   | 30   | 35    | 0                   | 11   | 28   | 2     | 0                        | 24   | 130  | 4     | 0                        | 1    | 259  | 17    | 576   |              | 1                    | 0    | 2     | 3     |
| 5:30 PM             | 0                   | 24   | 51   | 28    | 0                   | 9    | 27   | 8     | 0                        | 16   | 125  | 1     | 0                        | 1    | 286  | 17    | 593   |              | 3                    | 3    | 4     | 1     |
| 5:45 PM             | 0                   | 20   | 41   | 29    | 0                   | 3    | 22   | 1     | 0                        | 23   | 120  | 6     | 0                        | 1    | 274  | 24    | 564   |              | 0                    | 1    | 5     | 1     |

**Peak Rolling Hour Flow Rates**

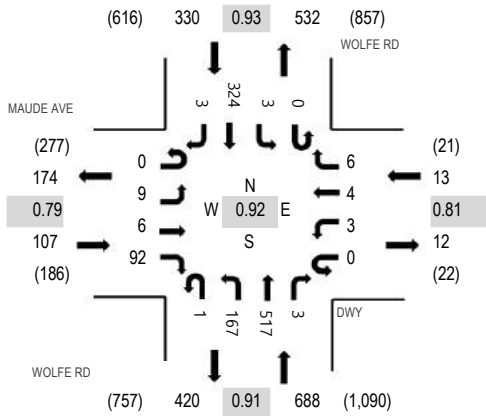
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |       |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|-------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru  | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0     | 1     | 1     |
| Lights             | 0         | 96   | 171  | 127   | 0         | 30   | 93   | 13    | 0          | 82   | 491  | 14    | 0          | 6    | 1,033 | 84    | 2,240 |
| Mediums            | 0         | 5    | 2    | 1     | 0         | 0    | 1    | 0     | 0          | 0    | 9    | 0     | 0          | 0    | 8     | 2     | 28    |
| Total              | 0         | 101  | 173  | 128   | 0         | 30   | 94   | 13    | 0          | 82   | 500  | 14    | 0          | 6    | 1,041 | 87    | 2,269 |



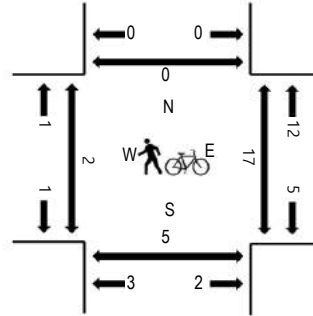
(303) 216-2439  
www.alltrafficdata.net

Location: 15 WOLFE RD & DWY AM  
Date and Start Time: Thursday, May 25, 2017  
Peak Hour: 08:00 AM - 09:00 AM  
Peak 15-Minutes: 08:45 AM - 09:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | DWY Westbound |      |      |       | WOLFE RD Northbound |      |      |       | WOLFE RD Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |   |   |
|---------------------|---------------------|------|------|-------|---------------|------|------|-------|---------------------|------|------|-------|---------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|---|---|
|                     | U-Turn              | Left | Thru | Right | U-Turn        | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right |       |              | West                 | East | South | North |   |   |
| 7:00 AM             | 0                   | 1    | 1    | 9     | 0             | 0    | 1    | 0     | 0                   | 0    | 15   | 41    | 0                   | 0    | 0    | 3     | 52    | 1            | 124                  | 775  | 0     | 2     | 0 | 0 |
| 7:15 AM             | 0                   | 3    | 1    | 11    | 0             | 1    | 2    | 0     | 0                   | 0    | 22   | 54    | 0                   | 1    | 1    | 65    | 2     | 163          | 913                  | 0    | 5     | 2     | 0 |   |
| 7:30 AM             | 0                   | 6    | 0    | 15    | 0             | 0    | 0    | 1     | 0                   | 0    | 23   | 97    | 1                   | 0    | 1    | 70    | 0     | 214          | 1,027                | 1    | 6     | 1     | 1 |   |
| 7:45 AM             | 0                   | 3    | 0    | 29    | 0             | 0    | 0    | 3     | 0                   | 0    | 33   | 115   | 1                   | 0    | 1    | 85    | 4     | 274          | 1,104                | 0    | 6     | 1     | 1 |   |
| 8:00 AM             | 0                   | 4    | 2    | 15    | 0             | 0    | 0    | 2     | 0                   | 0    | 31   | 118   | 0                   | 0    | 1    | 87    | 2     | 262          | 1,138                | 1    | 6     | 1     | 0 |   |
| 8:15 AM             | 0                   | 3    | 2    | 17    | 0             | 2    | 2    | 0     | 1                   | 0    | 41   | 135   | 1                   | 0    | 1    | 72    | 0     | 277          |                      | 0    | 4     | 0     | 0 |   |
| 8:30 AM             | 0                   | 2    | 1    | 32    | 0             | 0    | 1    | 2     | 0                   | 0    | 46   | 126   | 1                   | 0    | 1    | 78    | 1     | 291          |                      | 1    | 4     | 1     | 0 |   |
| 8:45 AM             | 0                   | 0    | 1    | 28    | 0             | 1    | 1    | 2     | 0                   | 0    | 49   | 138   | 1                   | 0    | 0    | 87    | 0     | 308          |                      | 0    | 1     | 3     | 0 |   |

**Peak Rolling Hour Flow Rates**

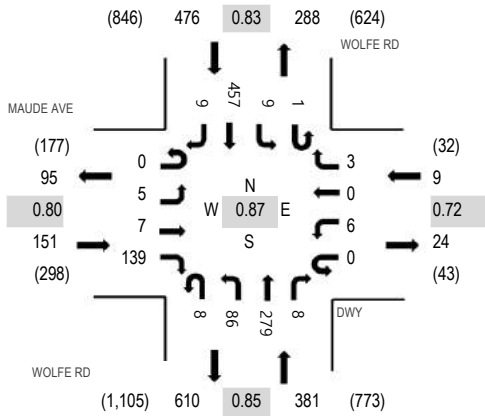
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 1    | 0     | 0          | 0    | 1    | 0     | 2     |
| Lights             | 0         | 9    | 6    | 88    | 0         | 3    | 4    | 5     | 1          | 166  | 507  | 3     | 0          | 2    | 314  | 2     | 1,110 |
| Mediums            | 0         | 0    | 0    | 4     | 0         | 0    | 0    | 1     | 0          | 1    | 9    | 0     | 0          | 1    | 9    | 1     | 26    |
| Total              | 0         | 9    | 6    | 92    | 0         | 3    | 4    | 6     | 1          | 167  | 517  | 3     | 0          | 3    | 324  | 3     | 1,138 |



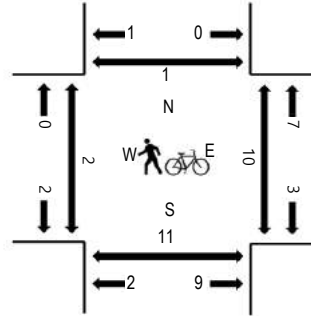
(303) 216-2439  
www.alltrafficdata.net

Location: 15 WOLFE RD & DWY PM  
Date and Start Time: Thursday, May 25, 2017  
Peak Hour: 03:00 PM - 04:00 PM  
Peak 15-Minutes: 03:45 PM - 04:00 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | DWY Westbound |      |      |       | WOLFE RD Northbound |      |      |       | WOLFE RD Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------|------|------|-------|---------------------|------|------|-------|---------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn        | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right |       |              | West                 | East | South | North |
| 2:00 PM             | 0                   | 5    | 2    | 24    | 0             | 1    | 0    | 3     | 1                   | 16   | 85   | 1     | 0                   | 1    | 68   | 1     | 208   | 932          | 0                    | 1    | 1     | 0     |
| 2:15 PM             | 0                   | 2    | 1    | 38    | 0             | 5    | 0    | 3     | 1                   | 23   | 86   | 5     | 0                   | 3    | 87   | 6     | 260   | 956          | 0                    | 3    | 0     | 2     |
| 2:30 PM             | 0                   | 4    | 0    | 27    | 0             | 0    | 1    | 6     | 2                   | 13   | 64   | 0     | 0                   | 2    | 86   | 3     | 208   | 953          | 0                    | 2    | 1     | 0     |
| 2:45 PM             | 0                   | 2    | 3    | 39    | 0             | 2    | 0    | 2     | 2                   | 19   | 73   | 1     | 1                   | 0    | 112  | 0     | 256   | 982          | 0                    | 1    | 3     | 0     |
| 3:00 PM             | 0                   | 1    | 2    | 25    | 0             | 1    | 0    | 1     | 2                   | 23   | 68   | 1     | 0                   | 2    | 101  | 5     | 232   | 1,017        | 0                    | 5    | 2     | 0     |
| 3:15 PM             | 0                   | 1    | 2    | 45    | 0             | 1    | 0    | 0     | 1                   | 22   | 66   | 2     | 0                   | 2    | 113  | 2     | 257   |              | 0                    | 2    | 0     | 0     |
| 3:30 PM             | 0                   | 1    | 1    | 32    | 0             | 3    | 0    | 1     | 1                   | 18   | 71   | 2     | 0                   | 3    | 104  | 0     | 237   |              | 1                    | 2    | 5     | 1     |
| 3:45 PM             | 0                   | 2    | 2    | 37    | 0             | 1    | 0    | 1     | 4                   | 23   | 74   | 3     | 1                   | 2    | 139  | 2     | 291   |              | 0                    | 1    | 4     | 0     |

**Peak Rolling Hour Flow Rates**

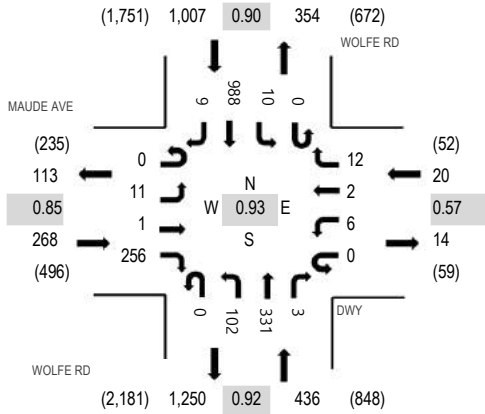
| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 2    | 0     | 2     |
| Lights             | 0         | 5    | 7    | 135   | 0         | 6    | 0    | 2     | 8          | 85   | 276  | 8     | 1          | 8    | 452  | 9     | 1,002 |
| Mediums            | 0         | 0    | 0    | 4     | 0         | 0    | 0    | 1     | 0          | 1    | 3    | 0     | 0          | 1    | 3    | 0     | 13    |
| Total              | 0         | 5    | 7    | 139   | 0         | 6    | 0    | 3     | 8          | 86   | 279  | 8     | 1          | 9    | 457  | 9     | 1,017 |



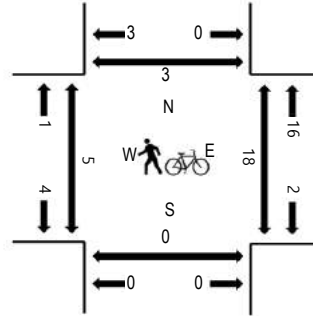
(303) 216-2439  
www.alltrafficdata.net

Location: 15 WOLFE RD & DWY PM  
Date and Start Time: Thursday, May 25, 2017  
Peak Hour: 05:00 PM - 06:00 PM  
Peak 15-Minutes: 05:15 PM - 05:30 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | MAUDE AVE Eastbound |      |      |       | DWY Westbound |      |      |       | WOLFE RD Northbound |      |      |       | WOLFE RD Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|---------------------|------|------|-------|---------------|------|------|-------|---------------------|------|------|-------|---------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn              | Left | Thru | Right | U-Turn        | Left | Thru | Right | U-Turn              | Left | Thru | Right | U-Turn              | Left | Thru | Right |       |              | West                 | East | South | North |
| 4:00 PM             | 0                   | 2    | 2    | 42    | 0             | 1    | 1    | 3     | 0                   | 22   | 75   | 4     | 0                   | 8    | 141  | 3     | 304   | 1,416        | 0                    | 1    | 1     | 1     |
| 4:15 PM             | 0                   | 6    | 4    | 44    | 0             | 4    | 5    | 6     | 0                   | 26   | 62   | 6     | 0                   | 10   | 175  | 1     | 349   | 1,557        | 1                    | 4    | 1     | 0     |
| 4:30 PM             | 1                   | 2    | 1    | 54    | 0             | 2    | 2    | 2     | 2                   | 25   | 86   | 1     | 0                   | 2    | 188  | 2     | 370   | 1,675        | 1                    | 0    | 2     | 1     |
| 4:45 PM             | 0                   | 2    | 3    | 65    | 0             | 3    | 0    | 3     | 1                   | 32   | 69   | 1     | 0                   | 3    | 209  | 2     | 393   | 1,700        | 3                    | 3    | 2     | 1     |
| 5:00 PM             | 0                   | 4    | 0    | 81    | 0             | 2    | 1    | 4     | 0                   | 26   | 78   | 2     | 0                   | 1    | 244  | 2     | 445   | 1,731        | 1                    | 1    | 0     | 0     |
| 5:15 PM             | 0                   | 3    | 0    | 73    | 0             | 1    | 0    | 3     | 0                   | 35   | 71   | 0     | 0                   | 6    | 273  | 2     | 467   |              | 1                    | 6    | 0     | 2     |
| 5:30 PM             | 0                   | 4    | 0    | 52    | 0             | 2    | 1    | 3     | 0                   | 26   | 92   | 0     | 0                   | 1    | 211  | 3     | 395   |              | 2                    | 5    | 0     | 0     |
| 5:45 PM             | 0                   | 0    | 1    | 50    | 0             | 1    | 0    | 2     | 0                   | 15   | 90   | 1     | 0                   | 2    | 260  | 2     | 424   |              | 0                    | 5    | 0     | 1     |

**Peak Rolling Hour Flow Rates**

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 1     | 0         | 0    | 0    | 0     | 0          | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 2     |
| Lights             | 0         | 11   | 1    | 250   | 0         | 6    | 2    | 12    | 0          | 102  | 328  | 3     | 0          | 10   | 986  | 9     | 1,720 |
| Mediums            | 0         | 0    | 0    | 5     | 0         | 0    | 0    | 0     | 0          | 0    | 2    | 0     | 0          | 0    | 2    | 0     | 9     |
| Total              | 0         | 11   | 1    | 256   | 0         | 6    | 2    | 12    | 0          | 102  | 331  | 3     | 0          | 10   | 988  | 9     | 1,731 |



National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
[info@ndsdata.com](mailto:info@ndsdata.com)

File Name : 17-7255-009 Wolfe Rd & E. Arques Ave  
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

| START TIME  | Wolfe Rd Southbound |       |       |        |           | E. Arques Ave Westbound |       |       |        |           | Wolfe Rd Northbound |       |       |        |           | E. Arques Ave Eastbound |       |       |        |           | Total  | Uturns Total |
|-------------|---------------------|-------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|---------------------|-------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|--------|--------------|
|             | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL |        |              |
| 7:00        | 15                  | 36    | 3     | 0      | 54        | 20                      | 31    | 11    | 0      | 62        | 4                   | 48    | 20    | 0      | 72        | 6                       | 19    | 2     | 0      | 27        | 215    | 0            |
| 7:15        | 10                  | 48    | 4     | 1      | 63        | 16                      | 25    | 20    | 0      | 61        | 2                   | 86    | 21    | 0      | 109       | 7                       | 20    | 3     | 0      | 30        | 263    | 1            |
| 7:30        | 15                  | 47    | 5     | 0      | 67        | 25                      | 38    | 30    | 0      | 93        | 12                  | 150   | 32    | 0      | 194       | 10                      | 34    | 2     | 0      | 46        | 400    | 0            |
| 7:45        | 22                  | 74    | 6     | 1      | 103       | 33                      | 73    | 34    | 0      | 140       | 11                  | 146   | 40    | 0      | 197       | 11                      | 33    | 1     | 0      | 45        | 485    | 1            |
| Total       | 62                  | 205   | 18    | 2      | 287       | 94                      | 167   | 95    | 0      | 356       | 29                  | 430   | 113   | 0      | 572       | 34                      | 106   | 8     | 0      | 148       | 1363   | 2            |
| 8:00        | 15                  | 72    | 5     | 1      | 93        | 27                      | 53    | 25    | 0      | 105       | 6                   | 142   | 47    | 1      | 196       | 14                      | 45    | 2     | 0      | 61        | 455    | 2            |
| 8:15        | 19                  | 64    | 3     | 0      | 86        | 21                      | 47    | 29    | 0      | 97        | 5                   | 137   | 70    | 1      | 213       | 9                       | 51    | 4     | 0      | 64        | 460    | 1            |
| 8:30        | 20                  | 46    | 6     | 1      | 73        | 37                      | 47    | 24    | 0      | 108       | 3                   | 204   | 110   | 0      | 317       | 24                      | 40    | 2     | 0      | 66        | 564    | 1            |
| 8:45        | 27                  | 79    | 9     | 1      | 116       | 30                      | 23    | 23    | 0      | 76        | 8                   | 172   | 85    | 1      | 266       | 20                      | 58    | 5     | 0      | 83        | 541    | 2            |
| Total       | 81                  | 261   | 23    | 3      | 368       | 115                     | 170   | 101   | 0      | 386       | 22                  | 655   | 312   | 3      | 992       | 67                      | 194   | 13    | 0      | 274       | 2020   | 6            |
| 9:00        | 20                  | 52    | 5     | 0      | 77        | 28                      | 32    | 17    | 0      | 77        | 6                   | 208   | 121   | 0      | 335       | 13                      | 62    | 3     | 0      | 78        | 567    | 0            |
| 9:15        | 26                  | 57    | 4     | 0      | 87        | 31                      | 39    | 24    | 0      | 94        | 5                   | 193   | 105   | 0      | 303       | 23                      | 83    | 3     | 0      | 109       | 593    | 0            |
| 9:30        | 25                  | 73    | 4     | 1      | 103       | 36                      | 30    | 14    | 0      | 80        | 8                   | 162   | 109   | 0      | 279       | 21                      | 84    | 2     | 0      | 107       | 569    | 1            |
| 9:45        | 21                  | 71    | 4     | 2      | 98        | 27                      | 41    | 14    | 0      | 82        | 8                   | 162   | 99    | 0      | 269       | 19                      | 71    | 3     | 0      | 93        | 542    | 2            |
| Total       | 92                  | 253   | 17    | 3      | 365       | 122                     | 142   | 69    | 0      | 333       | 27                  | 725   | 434   | 0      | 1186      | 76                      | 300   | 11    | 0      | 387       | 2271   | 3            |
| 16:00       | 27                  | 115   | 10    | 0      | 152       | 66                      | 41    | 22    | 0      | 129       | 4                   | 64    | 30    | 0      | 98        | 17                      | 38    | 10    | 0      | 65        | 444    | 0            |
| 16:15       | 36                  | 133   | 5     | 2      | 176       | 51                      | 47    | 19    | 0      | 117       | 1                   | 72    | 47    | 1      | 121       | 12                      | 45    | 7     | 0      | 64        | 478    | 3            |
| 16:30       | 24                  | 141   | 8     | 3      | 176       | 42                      | 48    | 24    | 0      | 114       | 3                   | 81    | 44    | 0      | 128       | 11                      | 50    | 7     | 0      | 68        | 486    | 3            |
| 16:45       | 29                  | 187   | 6     | 1      | 223       | 62                      | 50    | 27    | 0      | 139       | 4                   | 80    | 42    | 0      | 126       | 15                      | 49    | 4     | 0      | 68        | 556    | 1            |
| Total       | 116                 | 576   | 29    | 6      | 727       | 221                     | 186   | 92    | 0      | 499       | 12                  | 297   | 163   | 1      | 473       | 55                      | 182   | 28    | 0      | 265       | 1964   | 7            |
| 17:00       | 24                  | 246   | 9     | 2      | 281       | 78                      | 84    | 26    | 0      | 188       | 2                   | 72    | 36    | 0      | 110       | 15                      | 56    | 8     | 0      | 79        | 658    | 2            |
| 17:15       | 30                  | 271   | 12    | 0      | 313       | 92                      | 81    | 24    | 0      | 197       | 6                   | 84    | 33    | 1      | 124       | 7                       | 46    | 11    | 0      | 64        | 698    | 1            |
| 17:30       | 40                  | 240   | 13    | 3      | 296       | 80                      | 83    | 29    | 0      | 192       | 10                  | 89    | 43    | 1      | 143       | 17                      | 36    | 8     | 0      | 61        | 692    | 4            |
| 17:45       | 35                  | 289   | 15    | 3      | 342       | 78                      | 87    | 23    | 0      | 188       | 12                  | 125   | 24    | 2      | 163       | 14                      | 58    | 11    | 0      | 83        | 776    | 5            |
| Total       | 129                 | 1046  | 49    | 8      | 1232      | 328                     | 335   | 102   | 0      | 765       | 30                  | 370   | 136   | 4      | 540       | 53                      | 196   | 38    | 0      | 287       | 2824   | 12           |
| 18:00       | 29                  | 259   | 22    | 3      | 313       | 84                      | 90    | 28    | 0      | 202       | 10                  | 90    | 35    | 1      | 136       | 26                      | 54    | 7     | 0      | 87        | 738    | 4            |
| 18:15       | 22                  | 190   | 12    | 1      | 225       | 81                      | 83    | 27    | 0      | 191       | 8                   | 95    | 34    | 1      | 138       | 17                      | 60    | 7     | 0      | 84        | 638    | 2            |
| 18:30       | 36                  | 214   | 7     | 0      | 257       | 66                      | 71    | 28    | 0      | 165       | 4                   | 99    | 31    | 1      | 135       | 12                      | 54    | 8     | 0      | 74        | 631    | 1            |
| 18:45       | 17                  | 195   | 19    | 0      | 231       | 61                      | 58    | 28    | 0      | 147       | 9                   | 95    | 25    | 5      | 134       | 16                      | 37    | 3     | 0      | 56        | 568    | 5            |
| Total       | 104                 | 858   | 60    | 4      | 1026      | 292                     | 302   | 111   | 0      | 705       | 31                  | 379   | 125   | 8      | 543       | 71                      | 205   | 25    | 0      | 301       | 2575   | 12           |
| Grand Total | 584                 | 3199  | 196   | 26     | 4005      | 1172                    | 1302  | 570   | 0      | 3044      | 151                 | 2856  | 1283  | 16     | 4306      | 356                     | 1183  | 123   | 0      | 1662      | 13017  | 42           |
| Apprch %    | 14.6%               | 79.9% | 4.9%  | 0.6%   |           | 38.5%                   | 42.8% | 18.7% | 0.0%   |           | 3.5%                | 66.3% | 29.8% | 0.4%   |           | 21.4%                   | 71.2% | 7.4%  | 0.0%   |           |        |              |
| Total %     | 4.5%                | 24.6% | 1.5%  | 0.2%   | 30.8%     | 9.0%                    | 10.0% | 4.4%  | 0.0%   | 23.4%     | 1.2%                | 21.9% | 9.9%  | 0.1%   | 33.1%     | 2.7%                    | 9.1%  | 0.9%  | 0.0%   | 12.8%     | 100.0% |              |

| AM PEAK HOUR                                      | Wolfe Rd Southbound |       |       |        |           | E. Arques Ave Westbound |       |       |        |           | Wolfe Rd Northbound |       |       |        |           | E. Arques Ave Eastbound |       |       |        |           | Total |
|---|---------------------|-------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|---------------------|-------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|-------|
| START TIME  | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 09:00 to 10:00            |                     |       |       |        |           |                         |       |       |        |           |                     |       |       |        |           |                         |       |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 09:00 |                     |       |       |        |           |                         |       |       |        |           |                     |       |       |        |           |                         |       |       |        |           |       |
| 9:00  | 20                  | 52    | 5     | 0      | 77        | 28                      | 32    | 17    | 0      | 77        | 6                   | 208   | 121   | 0      | 335       | 13                      | 62    | 3     | 0      | 78        | 567   |
| 9:15  | 26                  | 57    | 4     | 0      | 87        | 31                      | 39    | 24    | 0      | 94        | 5                   | 193   | 105   | 0      | 303       | 23                      | 83    | 3     | 0      | 109       | 593   |
| 9:30  | 25                  | 73    | 4     | 1      | 103       | 36                      | 30    | 14    | 0      | 80        | 8                   | 162   | 109   | 0      | 279       | 21                      | 84    | 2     | 0      | 107       | 569   |
| 9:45  | 21                  | 71    | 4     | 2      | 98        | 27                      | 41    | 14    | 0      | 82        | 8                   | 162   | 99    | 0      | 269       | 19                      | 71    | 3     | 0      | 93        | 542   |
| Total Volume                                      | 92                  | 253   | 17    | 3      | 365       | 122                     | 142   | 69    | 0      | 333       | 27                  | 725   | 434   | 0      | 1186      | 76                      | 300   | 11    | 0      | 387       | 2271  |
| % App Total                                       | 25.2%               | 69.3% | 4.7%  | 0.8%   |           | 36.6%                   | 42.6% | 20.7% | 0.0%   |           | 2.3%                | 61.1% | 36.6% | 0.0%   |           | 19.6%                   | 77.5% | 2.8%  | 0.0%   |           |       |
| PHF   | .885                | .866  | .850  | .375   | .886      | .847                    | .866  | .719  | .000   | .886      | .844                | .871  | .897  | .000   | .885      | .826                    | .893  | .917  | .000   | .888      | .957  |

| PM PEAK HOUR                                      | Wolfe Rd Southbound |       |       |        |           | E. Arques Ave Westbound |       |       |        |           | Wolfe Rd Northbound |       |       |        |           | E. Arques Ave Eastbound |       |       |        |           | Total |
|---|---------------------|-------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|---------------------|-------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|-------|
| START TIME  | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                     |       |       |        |           |                         |       |       |        |           |                     |       |       |        |           |                         |       |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                     |       |       |        |           |                         |       |       |        |           |                     |       |       |        |           |                         |       |       |        |           |       |
| 17:15   | 30                  | 271   | 12    | 0      | 313       | 92                      | 81    | 24    | 0      | 197       | 6                   | 84    | 33    | 1      | 124       | 7                       | 46    | 11    | 0      | 64        | 698   |
| 17:30   | 40                  | 240   | 13    | 3      | 296       | 80                      | 83    | 29    | 0      | 192       | 10                  | 89    | 43    | 1      | 143       | 17                      | 36    | 8     | 0      | 61        | 692   |
| 17:45   | 35                  | 289   | 15    | 3      | 342       | 78                      | 87    | 23    | 0      | 188       | 12                  | 125   | 24    | 2      | 163       | 14                      | 58    | 11    | 0      | 83        | 776   |
| 18:00   | 29                  | 259   | 22    | 3      | 313       | 84                      | 90    | 28    | 0      | 202       | 10                  | 90    | 35    | 1      | 136       | 26                      | 54    | 7     | 0      | 87        | 738   |
| Total Volume                                      | 134                 | 1059  | 62    | 9      | 1264      | 334                     | 341   | 104   | 0      | 779       | 38                  | 388   | 135   | 5      | 566       | 64                      | 194   | 37    | 0      | 295       | 2904  |
| % App Total                                       | 10.6%               | 83.8% | 4.9%  | 0.7%   |           | 42.9%                   | 43.8% | 13.4% | 0.0%   |           | 6.7%                | 68.6% | 23.9% | 0.9%   |           | 21.7%                   | 65.8% | 12.5% | 0.0%   |           |       |
| PHF   | .838                | .916  | .705  | .750   | .924      | .908                    | .947  | .897  | .000   | .964      | .792                | .776  | .785  | .625   | .868      | .615                    | .836  | .841  | .000   | .848      | .936  |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-009 Wolfe Rd & E. Arques Ave  
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

| START TIME         | Wolfe Rd Southbound |           |          |           |           | E. Arques Ave Westbound |           |          |           |           | Wolfe Rd Northbound |           |           |           |           | E. Arques Ave Eastbound |           |          |           |           | Total      | Peds Total |
|--------------------|---------------------|-----------|----------|-----------|-----------|-------------------------|-----------|----------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-------------------------|-----------|----------|-----------|-----------|------------|------------|
|                    | LEFT                | THRU      | RIGHT    | PEDS      | APP.TOTAL | LEFT                    | THRU      | RIGHT    | PEDS      | APP.TOTAL | LEFT                | THRU      | RIGHT     | PEDS      | APP.TOTAL | LEFT                    | THRU      | RIGHT    | PEDS      | APP.TOTAL |            |            |
| 7:00               | 0                   | 1         | 0        | 2         | 1         | 1                       | 2         | 0        | 9         | 3         | 0                   | 1         | 1         | 0         | 2         | 0                       | 2         | 0        | 0         | 2         | 8          | 11         |
| 7:15               | 0                   | 0         | 0        | 0         | 0         | 0                       | 2         | 0        | 3         | 2         | 0                   | 4         | 0         | 0         | 4         | 0                       | 0         | 0        | 0         | 0         | 6          | 3          |
| 7:30               | 1                   | 0         | 0        | 2         | 1         | 0                       | 0         | 0        | 1         | 0         | 0                   | 1         | 2         | 1         | 3         | 0                       | 0         | 0        | 0         | 0         | 4          | 4          |
| 7:45               | 0                   | 0         | 0        | 1         | 0         | 0                       | 0         | 1        | 4         | 1         | 0                   | 0         | 0         | 2         | 0         | 1                       | 0         | 0        | 0         | 1         | 2          | 7          |
| <b>Total</b>       | <b>1</b>            | <b>1</b>  | <b>0</b> | <b>5</b>  | <b>2</b>  | <b>1</b>                | <b>4</b>  | <b>1</b> | <b>17</b> | <b>6</b>  | <b>0</b>            | <b>6</b>  | <b>3</b>  | <b>3</b>  | <b>9</b>  | <b>1</b>                | <b>2</b>  | <b>0</b> | <b>0</b>  | <b>3</b>  | <b>20</b>  | <b>25</b>  |
| 8:00               | 0                   | 1         | 0        | 5         | 1         | 3                       | 1         | 0        | 6         | 4         | 0                   | 1         | 2         | 0         | 3         | 1                       | 1         | 0        | 1         | 2         | 10         | 12         |
| 8:15               | 1                   | 1         | 0        | 2         | 2         | 0                       | 0         | 0        | 3         | 0         | 0                   | 1         | 1         | 0         | 2         | 0                       | 2         | 0        | 0         | 2         | 6          | 5          |
| 8:30               | 0                   | 0         | 0        | 0         | 0         | 1                       | 2         | 0        | 3         | 3         | 1                   | 3         | 1         | 0         | 5         | 0                       | 1         | 0        | 0         | 1         | 9          | 3          |
| 8:45               | 0                   | 1         | 0        | 2         | 1         | 1                       | 1         | 0        | 1         | 2         | 0                   | 1         | 4         | 0         | 5         | 1                       | 2         | 0        | 1         | 3         | 11         | 4          |
| <b>Total</b>       | <b>1</b>            | <b>3</b>  | <b>0</b> | <b>9</b>  | <b>4</b>  | <b>5</b>                | <b>4</b>  | <b>0</b> | <b>13</b> | <b>9</b>  | <b>1</b>            | <b>6</b>  | <b>8</b>  | <b>0</b>  | <b>15</b> | <b>2</b>                | <b>6</b>  | <b>0</b> | <b>2</b>  | <b>8</b>  | <b>36</b>  | <b>24</b>  |
| 9:00               | 0                   | 2         | 1        | 2         | 3         | 0                       | 3         | 0        | 3         | 3         | 0                   | 1         | 1         | 1         | 2         | 0                       | 2         | 0        | 0         | 2         | 10         | 6          |
| 9:15               | 0                   | 0         | 0        | 1         | 0         | 1                       | 3         | 1        | 4         | 5         | 0                   | 2         | 2         | 3         | 4         | 0                       | 1         | 0        | 2         | 1         | 10         | 10         |
| 9:30               | 0                   | 1         | 1        | 2         | 2         | 0                       | 1         | 0        | 3         | 1         | 0                   | 1         | 0         | 1         | 1         | 0                       | 1         | 0        | 0         | 1         | 5          | 6          |
| 9:45               | 0                   | 1         | 0        | 2         | 1         | 0                       | 3         | 0        | 7         | 3         | 0                   | 0         | 0         | 0         | 0         | 0                       | 1         | 0        | 2         | 1         | 5          | 11         |
| <b>Total</b>       | <b>0</b>            | <b>4</b>  | <b>2</b> | <b>7</b>  | <b>6</b>  | <b>1</b>                | <b>10</b> | <b>1</b> | <b>17</b> | <b>12</b> | <b>0</b>            | <b>4</b>  | <b>3</b>  | <b>5</b>  | <b>7</b>  | <b>0</b>                | <b>5</b>  | <b>0</b> | <b>4</b>  | <b>5</b>  | <b>30</b>  | <b>33</b>  |
| 16:00              | 0                   | 0         | 0        | 0         | 0         | 1                       | 1         | 0        | 8         | 2         | 0                   | 0         | 1         | 0         | 1         | 0                       | 0         | 0        | 1         | 0         | 3          | 9          |
| 16:15              | 1                   | 1         | 0        | 1         | 2         | 1                       | 1         | 0        | 3         | 2         | 0                   | 0         | 0         | 0         | 0         | 1                       | 0         | 0        | 0         | 1         | 5          | 4          |
| 16:30              | 0                   | 0         | 0        | 0         | 0         | 0                       | 4         | 0        | 2         | 4         | 0                   | 3         | 1         | 1         | 4         | 0                       | 1         | 0        | 1         | 1         | 9          | 4          |
| 16:45              | 1                   | 0         | 0        | 0         | 1         | 0                       | 1         | 0        | 0         | 1         | 0                   | 0         | 1         | 0         | 1         | 0                       | 1         | 0        | 1         | 1         | 4          | 1          |
| <b>Total</b>       | <b>2</b>            | <b>1</b>  | <b>0</b> | <b>1</b>  | <b>3</b>  | <b>2</b>                | <b>7</b>  | <b>0</b> | <b>13</b> | <b>9</b>  | <b>0</b>            | <b>3</b>  | <b>3</b>  | <b>1</b>  | <b>6</b>  | <b>1</b>                | <b>2</b>  | <b>0</b> | <b>3</b>  | <b>3</b>  | <b>21</b>  | <b>18</b>  |
| 17:00              | 1                   | 1         | 0        | 1         | 2         | 4                       | 2         | 0        | 0         | 6         | 0                   | 1         | 0         | 0         | 1         | 0                       | 0         | 0        | 3         | 0         | 9          | 4          |
| 17:15              | 0                   | 1         | 0        | 1         | 1         | 0                       | 6         | 0        | 0         | 6         | 0                   | 0         | 1         | 0         | 1         | 1                       | 2         | 0        | 2         | 3         | 11         | 3          |
| 17:30              | 0                   | 1         | 0        | 6         | 1         | 0                       | 4         | 0        | 0         | 4         | 0                   | 1         | 0         | 0         | 1         | 0                       | 2         | 0        | 0         | 2         | 8          | 6          |
| 17:45              | 0                   | 1         | 1        | 3         | 2         | 0                       | 2         | 0        | 0         | 2         | 0                   | 1         | 1         | 2         | 2         | 1                       | 2         | 0        | 1         | 3         | 9          | 6          |
| <b>Total</b>       | <b>1</b>            | <b>4</b>  | <b>1</b> | <b>11</b> | <b>6</b>  | <b>4</b>                | <b>14</b> | <b>0</b> | <b>0</b>  | <b>18</b> | <b>0</b>            | <b>3</b>  | <b>2</b>  | <b>2</b>  | <b>5</b>  | <b>2</b>                | <b>6</b>  | <b>0</b> | <b>6</b>  | <b>8</b>  | <b>37</b>  | <b>19</b>  |
| 18:00              | 0                   | 2         | 0        | 3         | 2         | 0                       | 1         | 0        | 2         | 1         | 0                   | 1         | 0         | 0         | 1         | 0                       | 1         | 0        | 3         | 1         | 5          | 8          |
| 18:15              | 0                   | 0         | 0        | 3         | 0         | 0                       | 1         | 0        | 0         | 1         | 0                   | 1         | 0         | 1         | 1         | 0                       | 1         | 0        | 0         | 1         | 3          | 4          |
| 18:30              | 2                   | 2         | 0        | 5         | 4         | 0                       | 1         | 0        | 0         | 1         | 0                   | 0         | 0         | 1         | 0         | 0                       | 1         | 0        | 3         | 1         | 6          | 9          |
| 18:45              | 1                   | 3         | 0        | 6         | 4         | 0                       | 2         | 1        | 2         | 3         | 0                   | 0         | 0         | 0         | 0         | 0                       | 0         | 0        | 4         | 0         | 7          | 12         |
| <b>Total</b>       | <b>3</b>            | <b>7</b>  | <b>0</b> | <b>17</b> | <b>10</b> | <b>0</b>                | <b>5</b>  | <b>1</b> | <b>4</b>  | <b>6</b>  | <b>0</b>            | <b>2</b>  | <b>0</b>  | <b>2</b>  | <b>2</b>  | <b>0</b>                | <b>3</b>  | <b>0</b> | <b>10</b> | <b>3</b>  | <b>21</b>  | <b>33</b>  |
| <b>Grand Total</b> | <b>8</b>            | <b>20</b> | <b>3</b> | <b>50</b> | <b>31</b> | <b>13</b>               | <b>44</b> | <b>3</b> | <b>64</b> | <b>60</b> | <b>1</b>            | <b>24</b> | <b>19</b> | <b>13</b> | <b>44</b> | <b>6</b>                | <b>24</b> | <b>0</b> | <b>25</b> | <b>30</b> | <b>165</b> | <b>152</b> |
| Apprch %           | 25.8%               | 64.5%     | 9.7%     |           |           | 21.7%                   | 73.3%     | 5.0%     |           |           | 2.3%                | 54.5%     | 43.2%     |           |           | 20.0%                   | 80.0%     | 0.0%     |           |           |            |            |
| Total %            | 4.8%                | 12.1%     | 1.8%     |           | 18.8%     | 7.9%                    | 26.7%     | 1.8%     |           | 36.4%     | 0.6%                | 14.5%     | 11.5%     |           | 26.7%     | 3.6%                    | 14.5%     | 0.0%     |           | 18.2%     | 100.0%     |            |

| AM PEAK HOUR                                      | Wolfe Rd Southbound |          |          |          |           | E. Arques Ave Westbound |           |          |           |           | Wolfe Rd Northbound |          |          |          |           | E. Arques Ave Eastbound |          |          |          |           | Total     |
|---|---------------------|----------|----------|----------|-----------|-------------------------|-----------|----------|-----------|-----------|---------------------|----------|----------|----------|-----------|-------------------------|----------|----------|----------|-----------|-----------|
| START TIME  | LEFT                | THRU     | RIGHT    | PEDS     | APP.TOTAL | LEFT                    | THRU      | RIGHT    | PEDS      | APP.TOTAL | LEFT                | THRU     | RIGHT    | PEDS     | APP.TOTAL | LEFT                    | THRU     | RIGHT    | PEDS     | APP.TOTAL | Total     |
| Peak Hour Analysis From 09:00 to 10:00            |                     |          |          |          |           |                         |           |          |           |           |                     |          |          |          |           |                         |          |          |          |           |           |
| Peak Hour For Entire Intersection Begins at 09:00 |                     |          |          |          |           |                         |           |          |           |           |                     |          |          |          |           |                         |          |          |          |           |           |
| 9:00  | 0                   | 2        | 1        | 2        | 3         | 0                       | 3         | 0        | 3         | 3         | 0                   | 1        | 1        | 1        | 2         | 0                       | 2        | 0        | 0        | 2         | 10        |
| 9:15  | 0                   | 0        | 0        | 1        | 0         | 1                       | 3         | 1        | 4         | 5         | 0                   | 2        | 2        | 3        | 4         | 0                       | 1        | 0        | 2        | 1         | 10        |
| 9:30  | 0                   | 1        | 1        | 2        | 2         | 0                       | 1         | 0        | 3         | 1         | 0                   | 1        | 0        | 1        | 1         | 0                       | 1        | 0        | 0        | 1         | 5         |
| 9:45  | 0                   | 1        | 0        | 2        | 1         | 0                       | 3         | 0        | 7         | 3         | 0                   | 0        | 0        | 0        | 0         | 0                       | 1        | 0        | 2        | 1         | 5         |
| <b>Total Volume</b>                               | <b>0</b>            | <b>4</b> | <b>2</b> | <b>7</b> | <b>6</b>  | <b>1</b>                | <b>10</b> | <b>1</b> | <b>17</b> | <b>12</b> | <b>0</b>            | <b>4</b> | <b>3</b> | <b>5</b> | <b>7</b>  | <b>0</b>                | <b>5</b> | <b>0</b> | <b>4</b> | <b>5</b>  | <b>30</b> |
| % App Total                                       | 0.0%                | 66.7%    | 33.3%    |          |           | 8.3%                    | 83.3%     | 8.3%     |           |           | 0.0%                | 57.1%    | 42.9%    |          |           | 0.0%                    | 100.0%   | 0.0%     |          |           |           |
| PHF   | .000                | .500     | .500     |          | .500      | .250                    | .833      | .250     |           | .600      | .000                | .500     | .375     |          | .438      | .000                    | .625     | .000     |          | .625      | .750      |

| PM PEAK HOUR                                      | Wolfe Rd Southbound |          |          |           |           | E. Arques Ave Westbound |           |          |          |           | Wolfe Rd Northbound |          |          |          |           | E. Arques Ave Eastbound |          |          |          |           | Total     |
|---|---------------------|----------|----------|-----------|-----------|-------------------------|-----------|----------|----------|-----------|---------------------|----------|----------|----------|-----------|-------------------------|----------|----------|----------|-----------|-----------|
| START TIME  | LEFT                | THRU     | RIGHT    | PEDS      | APP.TOTAL | LEFT                    | THRU      | RIGHT    | PEDS     | APP.TOTAL | LEFT                | THRU     | RIGHT    | PEDS     | APP.TOTAL | LEFT                    | THRU     | RIGHT    | PEDS     | APP.TOTAL | Total     |
| Peak Hour Analysis From 17:15 to 18:15            |                     |          |          |           |           |                         |           |          |          |           |                     |          |          |          |           |                         |          |          |          |           |           |
| Peak Hour For Entire Intersection Begins at 17:15 |                     |          |          |           |           |                         |           |          |          |           |                     |          |          |          |           |                         |          |          |          |           |           |
| 17:15   | 0                   | 1        | 0        | 1         | 1         | 0                       | 6         | 0        | 0        | 6         | 0                   | 0        | 1        | 0        | 1         | 1                       | 2        | 0        | 2        | 3         | 11        |
| 17:30   | 0                   | 1        | 0        | 6         | 1         | 0                       | 4         | 0        | 0        | 4         | 0                   | 1        | 0        | 0        | 1         | 0                       | 2        | 0        | 0        | 2         | 8         |
| 17:45   | 0                   | 1        | 1        | 3         | 2         | 0                       | 2         | 0        | 0        | 2         | 0                   | 1        | 1        | 2        | 2         | 1                       | 2        | 0        | 1        | 3         | 9         |
| 18:00   | 0                   | 2        | 0        | 3         | 2         | 0                       | 1         | 0        | 2        | 1         | 0                   | 1        | 0        | 0        | 1         | 0                       | 1        | 0        | 3        | 1         | 5         |
| <b>Total Volume</b>                               | <b>0</b>            | <b>5</b> | <b>1</b> | <b>13</b> | <b>6</b>  | <b>0</b>                | <b>13</b> | <b>0</b> | <b>2</b> | <b>13</b> | <b>0</b>            | <b>3</b> | <b>2</b> | <b>2</b> | <b>5</b>  | <b>2</b>                | <b>7</b> | <b>0</b> | <b>6</b> | <b>9</b>  | <b>33</b> |
| % App Total                                       | 0.0%                | 83.3%    | 16.7%    |           |           | 0.0%                    | 100.0%    | 0.0%     |          |           | 0.0%                | 60.0%    | 40.0%    |          |           | 22.2%                   | 77.8%    | 0.0%     |          |           |           |
| PHF   | .000                | .625     | .250     |           | .750      | .000                    | .542      | .000     |          | .542      | .000                | .750     | .500     |          | .625      | .500                    | .875     | .000     |          | .750      | .750      |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Utturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-010 N Wolfe Road & E Arques Avenue  
 Date : 12/2/2015

**Unshifted Count = All Vehicles & Utturns**

| START TIME  | N Wolfe Road Southbound |       |       |        |           | E Arques Avenue Westbound |       |       |        |           | N Wolfe Road Northbound |       |       |        |           | E Arques Avenue Eastbound |       |       |        |           | Total  | Utturns Total |
|-------------|-------------------------|-------|-------|--------|-----------|---------------------------|-------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|---------------------------|-------|-------|--------|-----------|--------|---------------|
|             | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                      | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                      | THRU  | RIGHT | UTURNS | APP.TOTAL |        |               |
| 14:00       | 35                      | 65    | 4     | 1      | 105       | 59                        | 47    | 22    | 0      | 128       | 4                       | 86    | 71    | 0      | 161       | 15                        | 66    | 7     | 0      | 88        | 482    | 1             |
| 14:15       | 30                      | 73    | 8     | 0      | 111       | 44                        | 36    | 20    | 0      | 100       | 3                       | 70    | 58    | 0      | 131       | 9                         | 46    | 10    | 0      | 65        | 407    | 0             |
| 14:30       | 25                      | 73    | 5     | 0      | 103       | 43                        | 40    | 30    | 0      | 113       | 5                       | 86    | 60    | 1      | 152       | 5                         | 46    | 10    | 0      | 61        | 429    | 1             |
| 14:45       | 22                      | 80    | 5     | 2      | 109       | 51                        | 45    | 22    | 0      | 118       | 8                       | 75    | 48    | 1      | 132       | 9                         | 43    | 14    | 0      | 66        | 425    | 3             |
| Total       | 112                     | 291   | 22    | 3      | 428       | 197                       | 168   | 94    | 0      | 459       | 20                      | 317   | 237   | 2      | 576       | 38                        | 201   | 41    | 0      | 280       | 1743   | 5             |
| 15:00       | 20                      | 99    | 6     | 2      | 127       | 46                        | 37    | 17    | 0      | 100       | 5                       | 86    | 49    | 1      | 141       | 15                        | 32    | 11    | 0      | 58        | 426    | 3             |
| 15:15       | 24                      | 103   | 6     | 1      | 134       | 48                        | 42    | 25    | 0      | 115       | 3                       | 86    | 47    | 0      | 136       | 9                         | 49    | 14    | 0      | 72        | 457    | 1             |
| 15:30       | 24                      | 114   | 4     | 2      | 144       | 48                        | 50    | 21    | 0      | 119       | 4                       | 99    | 41    | 0      | 144       | 9                         | 46    | 9     | 0      | 64        | 471    | 2             |
| 15:45       | 20                      | 108   | 4     | 0      | 132       | 58                        | 44    | 23    | 0      | 125       | 3                       | 90    | 59    | 0      | 152       | 11                        | 59    | 6     | 0      | 76        | 485    | 0             |
| Total       | 88                      | 424   | 20    | 5      | 537       | 200                       | 173   | 86    | 0      | 459       | 15                      | 361   | 196   | 1      | 573       | 44                        | 186   | 40    | 0      | 270       | 1839   | 6             |
| Grand Total | 200                     | 715   | 42    | 8      | 965       | 397                       | 341   | 180   | 0      | 918       | 35                      | 678   | 433   | 3      | 1149      | 82                        | 387   | 81    | 0      | 550       | 3582   | 11            |
| Apprch %    | 20.7%                   | 74.1% | 4.4%  | 0.8%   |           | 43.2%                     | 37.1% | 19.6% | 0.0%   |           | 3.0%                    | 59.0% | 37.7% | 0.3%   |           | 14.9%                     | 70.4% | 14.7% | 0.0%   |           |        |               |
| Total %     | 5.6%                    | 20.0% | 1.2%  | 0.2%   | 26.9%     | 11.1%                     | 9.5%  | 5.0%  | 0.0%   | 25.6%     | 1.0%                    | 18.9% | 12.1% | 0.1%   | 32.1%     | 2.3%                      | 10.8% | 2.3%  | 0.0%   | 15.4%     | 100.0% |               |

| PM PEAK HOUR                                      | N Wolfe Road Southbound |       |       |        |           | E Arques Avenue Westbound |       |       |        |           | N Wolfe Road Northbound |       |       |        |           | E Arques Avenue Eastbound |       |       |        |           | Total |
|---|-------------------------|-------|-------|--------|-----------|---------------------------|-------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|---------------------------|-------|-------|--------|-----------|-------|
|   | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                      | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                      | THRU  | RIGHT | UTURNS | APP.TOTAL |       |
| Peak Hour Analysis From 15:00 to 16:00            |                         |       |       |        |           |                           |       |       |        |           |                         |       |       |        |           |                           |       |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 15:00 |                         |       |       |        |           |                           |       |       |        |           |                         |       |       |        |           |                           |       |       |        |           |       |
| 15:00   | 20                      | 99    | 6     | 2      | 127       | 46                        | 37    | 17    | 0      | 100       | 5                       | 86    | 49    | 1      | 141       | 15                        | 32    | 11    | 0      | 58        | 426   |
| 15:15   | 24                      | 103   | 6     | 1      | 134       | 48                        | 42    | 25    | 0      | 115       | 3                       | 86    | 47    | 0      | 136       | 9                         | 49    | 14    | 0      | 72        | 457   |
| 15:30   | 24                      | 114   | 4     | 2      | 144       | 48                        | 50    | 21    | 0      | 119       | 4                       | 99    | 41    | 0      | 144       | 9                         | 46    | 9     | 0      | 64        | 471   |
| 15:45   | 20                      | 108   | 4     | 0      | 132       | 58                        | 44    | 23    | 0      | 125       | 3                       | 90    | 59    | 0      | 152       | 11                        | 59    | 6     | 0      | 76        | 485   |
| Total Volume                                      | 88                      | 424   | 20    | 5      | 537       | 200                       | 173   | 86    | 0      | 459       | 15                      | 361   | 196   | 1      | 573       | 44                        | 186   | 40    | 0      | 270       | 1839  |
| % App Total                                       | 16.4%                   | 79.0% | 3.7%  | 0.9%   |           | 43.6%                     | 37.7% | 18.7% | 0.0%   |           | 2.6%                    | 63.0% | 34.2% | 0.2%   |           | 16.3%                     | 68.9% | 14.8% | 0.0%   |           |       |
| PHF   | .917                    | .930  | .833  | .625   | .932      | .862                      | .865  | .860  | .000   | .918      | .750                    | .912  | .831  | .250   | .942      | .733                      | .788  | .714  | .000   | .888      | .948  |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-010 N Wolfe Road & E Arques Avenue  
 Date : 12/2/2015

**Bank 1 Count = Bikes & Peds**

| START TIME         | N Wolfe Road Southbound |       |       |      |           | E Arques Avenue Westbound |       |       |      |           | N Wolfe Road Northbound |       |       |      |           | E Arques Avenue Eastbound |        |       |      |           | Total  | Peds Total |
|--------------------|-------------------------|-------|-------|------|-----------|---------------------------|-------|-------|------|-----------|-------------------------|-------|-------|------|-----------|---------------------------|--------|-------|------|-----------|--------|------------|
|                    | LEFT                    | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU   | RIGHT | PEDS | APP.TOTAL |        |            |
| 14:00              | 0                       | 0     | 0     | 1    | 0         | 0                         | 1     | 0     | 2    | 1         | 0                       | 0     | 1     | 0    | 1         | 0                         | 0      | 0     | 1    | 0         | 2      | 4          |
| 14:15              | 0                       | 0     | 0     | 2    | 0         | 0                         | 1     | 0     | 0    | 1         | 0                       | 1     | 2     | 0    | 3         | 0                         | 1      | 0     | 2    | 1         | 5      | 4          |
| 14:30              | 0                       | 0     | 0     | 0    | 0         | 0                         | 1     | 0     | 0    | 1         | 0                       | 0     | 0     | 0    | 0         | 0                         | 1      | 0     | 0    | 1         | 2      | 0          |
| 14:45              | 0                       | 0     | 0     | 0    | 0         | 0                         | 0     | 0     | 2    | 0         | 0                       | 1     | 1     | 1    | 2         | 0                         | 0      | 0     | 0    | 0         | 2      | 3          |
| <b>Total</b>       | 0                       | 0     | 0     | 3    | 0         | 0                         | 3     | 0     | 4    | 3         | 0                       | 2     | 4     | 1    | 6         | 0                         | 2      | 0     | 3    | 2         | 11     | 11         |
| 15:00              | 0                       | 0     | 0     | 1    | 0         | 0                         | 0     | 0     | 1    | 0         | 0                       | 1     | 0     | 1    | 1         | 0                         | 0      | 0     | 0    | 0         | 1      | 3          |
| 15:15              | 0                       | 2     | 0     | 2    | 2         | 1                         | 1     | 0     | 0    | 2         | 0                       | 0     | 0     | 0    | 0         | 0                         | 1      | 0     | 3    | 1         | 5      | 5          |
| 15:30              | 0                       | 0     | 0     | 4    | 0         | 1                         | 1     | 0     | 0    | 2         | 0                       | 1     | 0     | 0    | 1         | 0                         | 0      | 0     | 0    | 0         | 3      | 4          |
| 15:45              | 2                       | 0     | 0     | 4    | 2         | 2                         | 0     | 0     | 0    | 2         | 0                       | 1     | 2     | 0    | 3         | 0                         | 1      | 0     | 4    | 1         | 8      | 8          |
| <b>Total</b>       | 2                       | 2     | 0     | 11   | 4         | 4                         | 2     | 0     | 1    | 6         | 0                       | 3     | 2     | 1    | 5         | 0                         | 2      | 0     | 7    | 2         | 17     | 20         |
| <b>Grand Total</b> | 2                       | 2     | 0     | 14   | 4         | 4                         | 5     | 0     | 5    | 9         | 0                       | 5     | 6     | 2    | 11        | 0                         | 4      | 0     | 10   | 4         | 28     | 31         |
| Apprch %           | 50.0%                   | 50.0% | 0.0%  |      |           | 44.4%                     | 55.6% | 0.0%  |      |           | 0.0%                    | 45.5% | 54.5% |      |           | 0.0%                      | 100.0% | 0.0%  |      |           |        |            |
| Total %            | 7.1%                    | 7.1%  | 0.0%  |      | 14.3%     | 14.3%                     | 17.9% | 0.0%  |      | 32.1%     | 0.0%                    | 17.9% | 21.4% |      | 39.3%     | 0.0%                      | 14.3%  | 0.0%  |      | 14.3%     | 100.0% |            |

| PM PEAK HOUR                                      | N Wolfe Road Southbound |       |       |      |           | E Arques Avenue Westbound |       |       |      |           | N Wolfe Road Northbound |       |       |      |           | E Arques Avenue Eastbound |        |       |      |           | Total |  |
|---|-------------------------|-------|-------|------|-----------|---------------------------|-------|-------|------|-----------|-------------------------|-------|-------|------|-----------|---------------------------|--------|-------|------|-----------|-------|--|
|   | LEFT                    | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                      | THRU   | RIGHT | PEDS | APP.TOTAL |       |  |
| Peak Hour Analysis From 15:00 to 16:00            |                         |       |       |      |           |                           |       |       |      |           |                         |       |       |      |           |                           |        |       |      |           |       |  |
| Peak Hour For Entire Intersection Begins at 15:00 |                         |       |       |      |           |                           |       |       |      |           |                         |       |       |      |           |                           |        |       |      |           |       |  |
| 15:00   | 0                       | 0     | 0     | 1    | 0         | 0                         | 0     | 0     | 1    | 0         | 0                       | 1     | 0     | 1    | 1         | 0                         | 0      | 0     | 0    | 0         | 1     |  |
| 15:15   | 0                       | 2     | 0     | 2    | 2         | 1                         | 1     | 0     | 0    | 2         | 0                       | 0     | 0     | 0    | 0         | 0                         | 1      | 0     | 3    | 1         | 5     |  |
| 15:30   | 0                       | 0     | 0     | 4    | 0         | 1                         | 1     | 0     | 0    | 2         | 0                       | 1     | 0     | 0    | 1         | 0                         | 0      | 0     | 0    | 0         | 3     |  |
| 15:45   | 2                       | 0     | 0     | 4    | 2         | 2                         | 0     | 0     | 0    | 2         | 0                       | 1     | 2     | 0    | 3         | 0                         | 1      | 0     | 4    | 1         | 8     |  |
| <b>Total Volume</b>                               | 2                       | 2     | 0     | 11   | 4         | 4                         | 2     | 0     | 1    | 6         | 0                       | 3     | 2     | 1    | 5         | 0                         | 2      | 0     | 7    | 2         | 17    |  |
| <b>% App Total</b>                                | 50.0%                   | 50.0% | 0.0%  |      |           | 66.7%                     | 33.3% | 0.0%  |      |           | 0.0%                    | 60.0% | 40.0% |      |           | 0.0%                      | 100.0% | 0.0%  |      |           |       |  |
| PHF   | .250                    | .250  | .000  |      | .500      | .500                      | .500  | .000  |      | .750      | .000                    | .750  | .250  |      | .417      | .000                      | .500   | .000  |      | .500      | .531  |  |



National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-010 Wolfe Rd & Central Expy WB Ramps  
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

| START TIME  | Wolfe Rd Southbound |       |       |      |           | Central Expy WB Ramps Westbound |      |       |      |           | Wolfe Rd Northbound |       |       |      |           | Central Expy WB Ramps Eastbound |      |       |      |           | Total  | Peds Total |
|-------------|---------------------|-------|-------|------|-----------|---------------------------------|------|-------|------|-----------|---------------------|-------|-------|------|-----------|---------------------------------|------|-------|------|-----------|--------|------------|
|             | LEFT                | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL |        |            |
| 7:00        | 0                   | 1     | 1     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 3      | 0          |
| 7:15        | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 0    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 0     | 0    | 0         | 4      | 0          |
| 7:30        | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 0    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 0     | 0    | 0         | 4      | 0          |
| 7:45        | 0                   | 0     | 0     | 0    | 0         | 1                               | 0    | 0     | 0    | 1         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 2      | 1          |
| Total       | 0                   | 1     | 1     | 0    | 2         | 1                               | 0    | 0     | 0    | 1         | 0                   | 10    | 0     | 0    | 10        | 0                               | 0    | 0     | 1    | 0         | 13     | 1          |
| 8:00        | 0                   | 3     | 0     | 0    | 3         | 0                               | 0    | 0     | 0    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 0     | 2    | 0         | 7      | 2          |
| 8:15        | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 3     | 0     | 0    | 3         | 0                               | 0    | 0     | 1    | 0         | 4      | 1          |
| 8:30        | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 2    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 0     | 1    | 0         | 5      | 3          |
| 8:45        | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 7     | 0     | 0    | 7         | 0                               | 0    | 0     | 1    | 0         | 9      | 1          |
| Total       | 0                   | 7     | 0     | 0    | 7         | 0                               | 0    | 0     | 2    | 0         | 0                   | 18    | 0     | 0    | 18        | 0                               | 0    | 0     | 5    | 0         | 25     | 7          |
| 9:00        | 0                   | 1     | 0     | 1    | 1         | 0                               | 0    | 0     | 1    | 0         | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 1    | 0         | 3      | 3          |
| 9:15        | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 0     | 2    | 0         | 6      | 2          |
| 9:30        | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 3     | 0     | 0    | 3         | 0                               | 0    | 0     | 1    | 0         | 5      | 1          |
| 9:45        | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 1    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 3    | 0         | 1      | 4          |
| Total       | 0                   | 6     | 0     | 1    | 6         | 0                               | 0    | 0     | 2    | 0         | 0                   | 9     | 0     | 0    | 9         | 0                               | 0    | 0     | 7    | 0         | 15     | 10         |
| 16:00       | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 1                   | 2     | 0     | 0    | 3         | 0                               | 0    | 0     | 1    | 0         | 4      | 1          |
| 16:15       | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 0    | 0         | 2      | 0          |
| 16:30       | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 1    | 0         | 0                   | 3     | 0     | 0    | 3         | 0                               | 0    | 0     | 0    | 0         | 4      | 1          |
| 16:45       | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 0    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 1    | 0         | 0      | 1          |
| Total       | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 0     | 1    | 0         | 1                   | 5     | 0     | 0    | 6         | 0                               | 0    | 0     | 2    | 0         | 10     | 3          |
| 17:00       | 0                   | 5     | 0     | 0    | 5         | 0                               | 0    | 0     | 1    | 0         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 1    | 0         | 6      | 2          |
| 17:15       | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 2    | 0         | 1      | 2          |
| 17:30       | 0                   | 1     | 0     | 0    | 1         | 1                               | 0    | 0     | 2    | 1         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 3      | 2          |
| 17:45       | 0                   | 0     | 0     | 0    | 0         | 2                               | 0    | 0     | 1    | 2         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 0     | 3    | 0         | 6      | 4          |
| Total       | 0                   | 7     | 0     | 0    | 7         | 3                               | 0    | 0     | 4    | 3         | 0                   | 6     | 0     | 0    | 6         | 0                               | 0    | 0     | 6    | 0         | 16     | 10         |
| 18:00       | 0                   | 3     | 0     | 0    | 3         | 0                               | 0    | 0     | 0    | 0         | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 4    | 0         | 5      | 4          |
| 18:15       | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 1     | 1    | 1         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 2      | 1          |
| 18:30       | 0                   | 1     | 0     | 0    | 1         | 1                               | 0    | 0     | 1    | 1         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 3    | 0         | 2      | 4          |
| 18:45       | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 1     | 2    | 1         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 6      | 2          |
| Total       | 0                   | 8     | 0     | 0    | 8         | 1                               | 0    | 2     | 4    | 3         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 0     | 7    | 0         | 15     | 11         |
| Grand Total | 0                   | 33    | 1     | 1    | 34        | 5                               | 0    | 2     | 13   | 7         | 1                   | 52    | 0     | 0    | 53        | 0                               | 0    | 0     | 28   | 0         | 94     | 42         |
| Apprch %    | 0.0%                | 97.1% | 2.9%  |      |           | 71.4%                           | 0.0% | 28.6% |      |           | 1.9%                | 98.1% | 0.0%  |      |           | 0.0%                            | 0.0% | 0.0%  |      |           |        |            |
| Total %     | 0.0%                | 35.1% | 1.1%  |      | 36.2%     | 5.3%                            | 0.0% | 2.1%  |      | 7.4%      | 1.1%                | 55.3% | 0.0%  |      | 56.4%     | 0.0%                            | 0.0% | 0.0%  |      | 0.0%      | 100.0% |            |

| AM PEAK HOUR                                      | Wolfe Rd Southbound |        |       |      |           | Central Expy WB Ramps Westbound |      |       |      |           | Wolfe Rd Northbound |        |       |      |           | Central Expy WB Ramps Eastbound |      |       |      |           | Total |
|---|---------------------|--------|-------|------|-----------|---------------------------------|------|-------|------|-----------|---------------------|--------|-------|------|-----------|---------------------------------|------|-------|------|-----------|-------|
| START TIME  | LEFT                | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 09:00 to 10:00            |                     |        |       |      |           |                                 |      |       |      |           |                     |        |       |      |           |                                 |      |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 09:00 |                     |        |       |      |           |                                 |      |       |      |           |                     |        |       |      |           |                                 |      |       |      |           |       |
| 9:00  | 0                   | 1      | 0     | 1    | 1         | 0                               | 0    | 0     | 1    | 0         | 0                   | 2      | 0     | 0    | 2         | 0                               | 0    | 0     | 1    | 0         | 3     |
| 9:15  | 0                   | 2      | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 4      | 0     | 0    | 4         | 0                               | 0    | 0     | 2    | 0         | 6     |
| 9:30  | 0                   | 2      | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 3      | 0     | 0    | 3         | 0                               | 0    | 0     | 1    | 0         | 5     |
| 9:45  | 0                   | 1      | 0     | 0    | 1         | 0                               | 0    | 0     | 1    | 0         | 0                   | 0      | 0     | 0    | 0         | 0                               | 0    | 0     | 3    | 0         | 1     |
| Total Volume                                      | 0                   | 6      | 0     | 1    | 6         | 0                               | 0    | 0     | 2    | 0         | 0                   | 9      | 0     | 0    | 9         | 0                               | 0    | 0     | 7    | 0         | 15    |
| % App Total                                       | 0.0%                | 100.0% | 0.0%  |      |           | 0.0%                            | 0.0% | 0.0%  |      |           | 0.0%                | 100.0% | 0.0%  |      |           | 0.0%                            | 0.0% | 0.0%  |      |           |       |
| PHF   | .000                | .750   | .000  |      | .750      | .000                            | .000 | .000  |      | .000      | .000                | .563   | .000  |      | .563      | .000                            | .000 | .000  |      | .000      | .625  |

| PM PEAK HOUR                                      | Wolfe Rd Southbound |        |       |      |           | Central Expy WB Ramps Westbound |      |       |      |           | Wolfe Rd Northbound |        |       |      |           | Central Expy WB Ramps Eastbound |      |       |      |           | Total |
|---|---------------------|--------|-------|------|-----------|---------------------------------|------|-------|------|-----------|---------------------|--------|-------|------|-----------|---------------------------------|------|-------|------|-----------|-------|
| START TIME  | LEFT                | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                     |        |       |      |           |                                 |      |       |      |           |                     |        |       |      |           |                                 |      |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                     |        |       |      |           |                                 |      |       |      |           |                     |        |       |      |           |                                 |      |       |      |           |       |
| 17:15   | 0                   | 1      | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 0      | 0     | 0    | 0         | 0                               | 0    | 0     | 2    | 0         | 1     |
| 17:30   | 0                   | 1      | 0     | 0    | 1         | 1                               | 0    | 0     | 2    | 1         | 0                   | 1      | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 3     |
| 17:45   | 0                   | 0      | 0     | 0    | 0         | 2                               | 0    | 0     | 1    | 2         | 0                   | 4      | 0     | 0    | 4         | 0                               | 0    | 0     | 3    | 0         | 6     |
| 18:00   | 0                   | 3      | 0     | 0    | 3         | 0                               | 0    | 0     | 0    | 0         | 0                   | 2      | 0     | 0    | 2         | 0                               | 0    | 0     | 4    | 0         | 5     |
| Total Volume                                      | 0                   | 5      | 0     | 0    | 5         | 3                               | 0    | 0     | 3    | 3         | 0                   | 7      | 0     | 0    | 7         | 0                               | 0    | 0     | 9    | 0         | 15    |
| % App Total                                       | 0.0%                | 100.0% | 0.0%  |      |           | 100.0%                          | 0.0% | 0.0%  |      |           | 0.0%                | 100.0% | 0.0%  |      |           | 0.0%                            | 0.0% | 0.0%  |      |           |       |
| PHF   | .000                | .417   | .000  |      | .417      | .375                            | .000 | .000  |      | .375      | .000                | .438   | .000  |      | .438      | .000                            | .000 | .000  |      | .000      | .625  |



### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-011 N Wolfe Road & Central Expressway WB Ramps  
 Date : 12/2/2015

**Bank 1 Count = Bikes & Peds**

| START TIME         | N Wolfe Road Southbound |        |       |      |           | Central Expressway WB Ramps Westbound |      |       |      |           | N Wolfe Road Northbound |        |       |      |           | Central Expressway WB Ramps Eastbound |      |       |      |           | Total  | Peds Total |
|--------------------|-------------------------|--------|-------|------|-----------|---------------------------------------|------|-------|------|-----------|-------------------------|--------|-------|------|-----------|---------------------------------------|------|-------|------|-----------|--------|------------|
|                    | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                                  | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                                  | THRU | RIGHT | PEDS | APP.TOTAL |        |            |
| 14:00              | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 2    | 0         | 0                       | 3      | 0     | 0    | 3         | 0                                     | 0    | 0     | 5    | 0         | 4      | 7          |
| 14:15              | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 1    | 0         | 4      | 2          |
| 14:30              | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 8    | 0         | 3      | 8          |
| 14:45              | 0                       | 0      | 0     | 1    | 0         | 0                                     | 0    | 0     | 2    | 0         | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 12   | 0         | 2      | 15         |
| <b>Total</b>       | 0                       | 5      | 0     | 1    | 5         | 0                                     | 0    | 0     | 5    | 0         | 0                       | 8      | 0     | 0    | 8         | 0                                     | 0    | 0     | 26   | 0         | 13     | 32         |
| 15:00              | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 4    | 0         | 3      | 4          |
| 15:15              | 0                       | 4      | 0     | 0    | 4         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 6    | 0         | 5      | 6          |
| 15:30              | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 2    | 0         | 3      | 2          |
| 15:45              | 0                       | 0      | 0     | 0    | 0         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 6      | 0     | 0    | 6         | 0                                     | 0    | 0     | 3    | 0         | 6      | 4          |
| <b>Total</b>       | 0                       | 7      | 0     | 0    | 7         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 10     | 0     | 0    | 10        | 0                                     | 0    | 0     | 15   | 0         | 17     | 16         |
| <b>Grand Total</b> | 0                       | 12     | 0     | 1    | 12        | 0                                     | 0    | 0     | 6    | 0         | 0                       | 18     | 0     | 0    | 18        | 0                                     | 0    | 0     | 41   | 0         | 30     | 48         |
| Apprch %           | 0.0%                    | 100.0% | 0.0%  |      |           | 0.0%                                  | 0.0% | 0.0%  |      |           | 0.0%                    | 100.0% | 0.0%  |      |           | 0.0%                                  | 0.0% | 0.0%  |      |           |        |            |
| Total %            | 0.0%                    | 40.0%  | 0.0%  |      | 40.0%     | 0.0%                                  | 0.0% | 0.0%  |      | 0.0%      | 0.0%                    | 60.0%  | 0.0%  |      | 60.0%     | 0.0%                                  | 0.0% | 0.0%  |      | 0.0%      | 100.0% |            |

| PM PEAK HOUR                                      | N Wolfe Road Southbound |        |       |      |           | Central Expressway WB Ramps Westbound |      |       |      |           | N Wolfe Road Northbound |        |       |      |           | Central Expressway WB Ramps Eastbound |      |       |      |           | Total |
|---|-------------------------|--------|-------|------|-----------|---------------------------------------|------|-------|------|-----------|-------------------------|--------|-------|------|-----------|---------------------------------------|------|-------|------|-----------|-------|
|   | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                                  | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                                  | THRU | RIGHT | PEDS | APP.TOTAL |       |
| Peak Hour Analysis From 15:00 to 16:00            |                         |        |       |      |           |                                       |      |       |      |           |                         |        |       |      |           |                                       |      |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 15:00 |                         |        |       |      |           |                                       |      |       |      |           |                         |        |       |      |           |                                       |      |       |      |           |       |
| 15:00   | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 4    | 0         | 3     |
| 15:15   | 0                       | 4      | 0     | 0    | 4         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 6    | 0         | 5     |
| 15:30   | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 2    | 0         | 3     |
| 15:45   | 0                       | 0      | 0     | 0    | 0         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 6      | 0     | 0    | 6         | 0                                     | 0    | 0     | 3    | 0         | 6     |
| <b>Total Volume</b>                               | 0                       | 7      | 0     | 0    | 7         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 10     | 0     | 0    | 10        | 0                                     | 0    | 0     | 15   | 0         | 17    |
| <b>% App Total</b>                                | 0.0%                    | 100.0% | 0.0%  |      |           | 0.0%                                  | 0.0% | 0.0%  |      |           | 0.0%                    | 100.0% | 0.0%  |      |           | 0.0%                                  | 0.0% | 0.0%  |      |           |       |
| PHF   | .000                    | .438   | .000  |      | .438      | .000                                  | .000 | .000  |      | .000      | .000                    | .417   | .000  |      | .417      | .000                                  | .000 | .000  |      | .000      | .708  |



National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-011 Wolfe Rd & Central Expy EB Ramps  
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

| START TIME  | Wolfe Rd Southbound |       |       |        |           | Central Expy EB Ramps Westbound |      |       |        |           | Wolfe Rd Northbound |       |       |        |           | Central Expy EB Ramps Eastbound |      |       |        |           | Total  | Uturns Total |
|-------------|---------------------|-------|-------|--------|-----------|---------------------------------|------|-------|--------|-----------|---------------------|-------|-------|--------|-----------|---------------------------------|------|-------|--------|-----------|--------|--------------|
|             | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                            | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                            | THRU | RIGHT | UTURNS | APP.TOTAL |        |              |
| 7:00        | 5                   | 83    | 0     | 0      | 88        | 0                               | 0    | 0     | 0      | 0         | 0                   | 123   | 34    | 0      | 157       | 5                               | 1    | 18    | 0      | 24        | 269    | 0            |
| 7:15        | 2                   | 91    | 0     | 0      | 93        | 0                               | 0    | 0     | 0      | 0         | 0                   | 147   | 42    | 0      | 189       | 6                               | 0    | 19    | 0      | 25        | 307    | 0            |
| 7:30        | 4                   | 100   | 0     | 0      | 104       | 0                               | 0    | 0     | 0      | 0         | 0                   | 230   | 66    | 0      | 296       | 12                              | 0    | 29    | 0      | 41        | 441    | 0            |
| 7:45        | 5                   | 145   | 0     | 0      | 150       | 0                               | 0    | 0     | 0      | 0         | 0                   | 240   | 86    | 0      | 326       | 19                              | 0    | 29    | 0      | 48        | 524    | 0            |
| Total       | 16                  | 419   | 0     | 0      | 435       | 0                               | 0    | 0     | 0      | 0         | 0                   | 740   | 228   | 0      | 968       | 42                              | 1    | 95    | 0      | 138       | 1541   | 0            |
| 8:00        | 6                   | 135   | 0     | 0      | 141       | 0                               | 0    | 0     | 0      | 0         | 0                   | 222   | 100   | 0      | 322       | 25                              | 0    | 26    | 0      | 51        | 514    | 0            |
| 8:15        | 6                   | 132   | 0     | 0      | 138       | 0                               | 0    | 0     | 0      | 0         | 0                   | 280   | 104   | 0      | 384       | 24                              | 1    | 29    | 0      | 54        | 576    | 0            |
| 8:30        | 8                   | 118   | 0     | 0      | 126       | 0                               | 0    | 0     | 0      | 0         | 0                   | 350   | 162   | 0      | 512       | 33                              | 0    | 34    | 0      | 67        | 705    | 0            |
| 8:45        | 5                   | 129   | 0     | 0      | 134       | 0                               | 0    | 0     | 0      | 0         | 0                   | 329   | 143   | 0      | 472       | 24                              | 0    | 47    | 0      | 71        | 677    | 0            |
| Total       | 25                  | 514   | 0     | 0      | 539       | 0                               | 0    | 0     | 0      | 0         | 0                   | 1181  | 509   | 0      | 1690      | 106                             | 1    | 136   | 0      | 243       | 2472   | 0            |
| 9:00        | 7                   | 104   | 0     | 1      | 112       | 0                               | 0    | 0     | 0      | 0         | 0                   | 353   | 133   | 0      | 486       | 34                              | 1    | 46    | 0      | 81        | 679    | 1            |
| 9:15        | 9                   | 122   | 0     | 0      | 131       | 0                               | 0    | 0     | 0      | 0         | 0                   | 359   | 102   | 0      | 461       | 28                              | 0    | 32    | 0      | 60        | 652    | 0            |
| 9:30        | 3                   | 125   | 0     | 0      | 128       | 0                               | 0    | 0     | 0      | 0         | 0                   | 370   | 103   | 0      | 473       | 33                              | 0    | 29    | 0      | 62        | 663    | 0            |
| 9:45        | 10                  | 102   | 0     | 0      | 112       | 0                               | 0    | 0     | 0      | 0         | 0                   | 349   | 81    | 0      | 430       | 30                              | 0    | 44    | 0      | 74        | 616    | 0            |
| Total       | 29                  | 453   | 0     | 1      | 483       | 0                               | 0    | 0     | 0      | 0         | 0                   | 1431  | 419   | 0      | 1850      | 125                             | 1    | 151   | 0      | 277       | 2610   | 1            |
| 16:00       | 15                  | 224   | 0     | 0      | 239       | 0                               | 0    | 0     | 0      | 0         | 0                   | 124   | 14    | 0      | 138       | 18                              | 0    | 74    | 0      | 92        | 469    | 0            |
| 16:15       | 17                  | 207   | 0     | 0      | 224       | 0                               | 0    | 0     | 0      | 0         | 0                   | 87    | 24    | 0      | 111       | 22                              | 0    | 113   | 0      | 135       | 470    | 0            |
| 16:30       | 28                  | 247   | 0     | 1      | 276       | 0                               | 0    | 0     | 0      | 0         | 0                   | 138   | 30    | 0      | 168       | 21                              | 0    | 98    | 0      | 119       | 563    | 1            |
| 16:45       | 17                  | 298   | 0     | 1      | 316       | 0                               | 0    | 0     | 0      | 0         | 0                   | 132   | 20    | 0      | 152       | 16                              | 1    | 99    | 0      | 116       | 584    | 1            |
| Total       | 77                  | 976   | 0     | 2      | 1055      | 0                               | 0    | 0     | 0      | 0         | 0                   | 481   | 88    | 0      | 569       | 77                              | 1    | 384   | 0      | 462       | 2086   | 2            |
| 17:00       | 12                  | 404   | 0     | 0      | 416       | 0                               | 0    | 0     | 0      | 0         | 0                   | 124   | 23    | 0      | 147       | 13                              | 1    | 142   | 0      | 156       | 719    | 0            |
| 17:15       | 11                  | 489   | 0     | 0      | 500       | 0                               | 0    | 0     | 0      | 0         | 0                   | 142   | 21    | 0      | 163       | 14                              | 0    | 135   | 0      | 149       | 812    | 0            |
| 17:30       | 9                   | 439   | 0     | 0      | 448       | 0                               | 0    | 0     | 0      | 0         | 0                   | 150   | 23    | 0      | 173       | 23                              | 0    | 146   | 0      | 169       | 790    | 0            |
| 17:45       | 14                  | 468   | 0     | 0      | 482       | 0                               | 0    | 0     | 0      | 0         | 0                   | 162   | 20    | 0      | 182       | 16                              | 1    | 151   | 0      | 168       | 832    | 0            |
| Total       | 46                  | 1800  | 0     | 0      | 1846      | 0                               | 0    | 0     | 0      | 0         | 0                   | 578   | 87    | 0      | 665       | 66                              | 2    | 574   | 0      | 642       | 3153   | 0            |
| 18:00       | 13                  | 441   | 0     | 0      | 454       | 0                               | 0    | 0     | 0      | 0         | 0                   | 147   | 30    | 0      | 177       | 25                              | 0    | 133   | 0      | 158       | 789    | 0            |
| 18:15       | 13                  | 362   | 0     | 0      | 375       | 0                               | 0    | 0     | 0      | 0         | 0                   | 160   | 12    | 0      | 172       | 18                              | 0    | 149   | 0      | 167       | 714    | 0            |
| 18:30       | 9                   | 368   | 0     | 0      | 377       | 0                               | 0    | 0     | 0      | 0         | 0                   | 161   | 26    | 0      | 187       | 20                              | 0    | 119   | 0      | 139       | 703    | 0            |
| 18:45       | 24                  | 299   | 0     | 0      | 323       | 0                               | 0    | 0     | 0      | 0         | 0                   | 155   | 38    | 0      | 193       | 17                              | 0    | 100   | 0      | 117       | 633    | 0            |
| Total       | 59                  | 1470  | 0     | 0      | 1529      | 0                               | 0    | 0     | 0      | 0         | 0                   | 623   | 106   | 0      | 729       | 80                              | 0    | 501   | 0      | 581       | 2839   | 0            |
| Grand Total | 252                 | 5632  | 0     | 3      | 5887      | 0                               | 0    | 0     | 0      | 0         | 0                   | 5034  | 1437  | 0      | 6471      | 496                             | 6    | 1841  | 0      | 2343      | 14701  | 3            |
| Apprch %    | 4.3%                | 95.7% | 0.0%  | 0.1%   |           | 0.0%                            | 0.0% | 0.0%  | 0.0%   | 0.0%      | 0.0%                | 77.8% | 22.2% | 0.0%   |           | 21.2%                           | 0.3% | 78.6% | 0.0%   |           |        |              |
| Total %     | 1.7%                | 38.3% | 0.0%  | 0.0%   | 40.0%     | 0.0%                            | 0.0% | 0.0%  | 0.0%   | 0.0%      | 0.0%                | 34.2% | 9.8%  | 0.0%   | 44.0%     | 3.4%                            | 0.0% | 12.5% | 0.0%   | 15.9%     | 100.0% |              |

| AM PEAK HOUR                                      | Wolfe Rd Southbound |       |       |        |           | Central Expy EB Ramps Westbound |      |       |        |           | Wolfe Rd Northbound |       |       |        |           | Central Expy EB Ramps Eastbound |      |       |        |           | Total |
|---|---------------------|-------|-------|--------|-----------|---------------------------------|------|-------|--------|-----------|---------------------|-------|-------|--------|-----------|---------------------------------|------|-------|--------|-----------|-------|
| START TIME  | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                            | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                            | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 08:30 to 09:30            |                     |       |       |        |           |                                 |      |       |        |           |                     |       |       |        |           |                                 |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 08:30 |                     |       |       |        |           |                                 |      |       |        |           |                     |       |       |        |           |                                 |      |       |        |           |       |
| 8:30  | 8                   | 118   | 0     | 0      | 126       | 0                               | 0    | 0     | 0      | 0         | 0                   | 350   | 162   | 0      | 512       | 33                              | 0    | 34    | 0      | 67        | 705   |
| 8:45  | 5                   | 129   | 0     | 0      | 134       | 0                               | 0    | 0     | 0      | 0         | 0                   | 329   | 143   | 0      | 472       | 24                              | 0    | 47    | 0      | 71        | 677   |
| 9:00  | 7                   | 104   | 0     | 1      | 112       | 0                               | 0    | 0     | 0      | 0         | 0                   | 353   | 133   | 0      | 486       | 34                              | 1    | 46    | 0      | 81        | 679   |
| 9:15  | 9                   | 122   | 0     | 0      | 131       | 0                               | 0    | 0     | 0      | 0         | 0                   | 359   | 102   | 0      | 461       | 28                              | 0    | 32    | 0      | 60        | 652   |
| Total Volume                                      | 29                  | 473   | 0     | 1      | 503       | 0                               | 0    | 0     | 0      | 0         | 0                   | 1391  | 540   | 0      | 1931      | 119                             | 1    | 159   | 0      | 279       | 2713  |
| % App Total                                       | 5.8%                | 94.0% | 0.0%  | 0.2%   |           | 0.0%                            | 0.0% | 0.0%  | 0.0%   | 0.0%      | 0.0%                | 72.0% | 28.0% | 0.0%   |           | 42.7%                           | 0.4% | 57.0% | 0.0%   |           |       |
| PHF   | .806                | .917  | .000  | .250   | .938      | .000                            | .000 | .000  | .000   | .000      | .000                | .969  | .833  | .000   | .943      | .875                            | .250 | .846  | .000   | .861      | .962  |

| PM PEAK HOUR                                      | Wolfe Rd Southbound |       |       |        |           | Central Expy EB Ramps Westbound |      |       |        |           | Wolfe Rd Northbound |       |       |        |           | Central Expy EB Ramps Eastbound |      |       |        |           | Total |
|---|---------------------|-------|-------|--------|-----------|---------------------------------|------|-------|--------|-----------|---------------------|-------|-------|--------|-----------|---------------------------------|------|-------|--------|-----------|-------|
| START TIME  | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                            | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                            | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                     |       |       |        |           |                                 |      |       |        |           |                     |       |       |        |           |                                 |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                     |       |       |        |           |                                 |      |       |        |           |                     |       |       |        |           |                                 |      |       |        |           |       |
| 17:15   | 11                  | 489   | 0     | 0      | 500       | 0                               | 0    | 0     | 0      | 0         | 0                   | 142   | 21    | 0      | 163       | 14                              | 0    | 135   | 0      | 149       | 812   |
| 17:30   | 9                   | 439   | 0     | 0      | 448       | 0                               | 0    | 0     | 0      | 0         | 0                   | 150   | 23    | 0      | 173       | 23                              | 0    | 146   | 0      | 169       | 790   |
| 17:45   | 14                  | 468   | 0     | 0      | 482       | 0                               | 0    | 0     | 0      | 0         | 0                   | 162   | 20    | 0      | 182       | 16                              | 1    | 151   | 0      | 168       | 832   |
| 18:00   | 13                  | 441   | 0     | 0      | 454       | 0                               | 0    | 0     | 0      | 0         | 0                   | 147   | 30    | 0      | 177       | 25                              | 0    | 133   | 0      | 158       | 789   |
| Total Volume                                      | 47                  | 1837  | 0     | 0      | 1884      | 0                               | 0    | 0     | 0      | 0         | 0                   | 601   | 94    | 0      | 695       | 78                              | 1    | 565   | 0      | 644       | 3223  |
| % App Total                                       | 2.5%                | 97.5% | 0.0%  | 0.0%   |           | 0.0%                            | 0.0% | 0.0%  | 0.0%   | 0.0%      | 0.0%                | 86.5% | 13.5% | 0.0%   |           | 12.1%                           | 0.2% | 87.7% | 0.0%   |           |       |
| PHF   | .839                | .939  | .000  | .000   | .942      | .000                            | .000 | .000  | .000   | .000      | .000                | .927  | .783  | .000   | .955      | .780                            | .250 | .935  | .000   | .953      | .968  |

National Data and Surveying Services

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Peds & Bikes On Bank 1  
 Nothing On Bank 2

(323) 782-0090  
 info@ndsdata.com

File Name : 17-7255-011 Wolfe Rd & Central Expy EB Ramps  
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

| START TIME  | Wolfe Rd Southbound |       |       |      |           | Central Expy EB Ramps Westbound |      |       |      |           | Wolfe Rd Northbound |       |       |      |           | Central Expy EB Ramps Eastbound |       |       |      |           | Total  | Peds Total |
|-------------|---------------------|-------|-------|------|-----------|---------------------------------|------|-------|------|-----------|---------------------|-------|-------|------|-----------|---------------------------------|-------|-------|------|-----------|--------|------------|
|             | LEFT                | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU  | RIGHT | PEDS | APP.TOTAL |        |            |
| 7:00        | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0     | 0     | 0    | 0         | 2      | 0          |
| 7:15        | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 0    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0     | 0     | 0    | 0         | 4      | 0          |
| 7:30        | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 0    | 0         | 0                   | 3     | 0     | 0    | 3         | 1                               | 0     | 0     | 0    | 1         | 4      | 0          |
| 7:45        | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0     | 0     | 0    | 0         | 2      | 1          |
| Total       | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 9     | 0     | 0    | 9         | 1                               | 0     | 0     | 1    | 1         | 12     | 1          |
| 8:00        | 0                   | 3     | 0     | 0    | 3         | 0                               | 0    | 0     | 0    | 0         | 0                   | 3     | 0     | 0    | 3         | 1                               | 0     | 0     | 2    | 1         | 7      | 2          |
| 8:15        | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 3     | 0     | 0    | 3         | 0                               | 0     | 0     | 1    | 0         | 4      | 1          |
| 8:30        | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 3    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0     | 0     | 1    | 0         | 5      | 4          |
| 8:45        | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 6     | 0     | 1    | 6         | 1                               | 0     | 0     | 2    | 1         | 9      | 3          |
| Total       | 0                   | 7     | 0     | 0    | 7         | 0                               | 0    | 0     | 3    | 0         | 0                   | 16    | 0     | 1    | 16        | 2                               | 0     | 0     | 6    | 2         | 25     | 10         |
| 9:00        | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 1    | 0         | 0                   | 2     | 0     | 0    | 2         | 0                               | 0     | 0     | 1    | 0         | 3      | 2          |
| 9:15        | 1                   | 1     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0     | 0     | 1    | 0         | 6      | 1          |
| 9:30        | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 3     | 0     | 0    | 3         | 0                               | 0     | 0     | 2    | 0         | 4      | 2          |
| 9:45        | 2                   | 0     | 0     | 0    | 2         | 0                               | 0    | 0     | 1    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0     | 0     | 5    | 0         | 2      | 6          |
| Total       | 3                   | 3     | 0     | 0    | 6         | 0                               | 0    | 0     | 2    | 0         | 0                   | 9     | 0     | 0    | 9         | 0                               | 0     | 0     | 9    | 0         | 15     | 11         |
| 16:00       | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 3     | 0     | 0    | 3         | 0                               | 0     | 1     | 1    | 1         | 5      | 1          |
| 16:15       | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0     | 0     | 0    | 0         | 2      | 0          |
| 16:30       | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 1    | 0         | 0                   | 2     | 0     | 0    | 2         | 1                               | 0     | 0     | 0    | 1         | 4      | 1          |
| 16:45       | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 0    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0     | 0     | 1    | 0         | 0      | 1          |
| Total       | 0                   | 4     | 0     | 0    | 4         | 0                               | 0    | 0     | 1    | 0         | 0                   | 5     | 0     | 0    | 5         | 1                               | 0     | 1     | 2    | 2         | 11     | 3          |
| 17:00       | 0                   | 5     | 0     | 0    | 5         | 0                               | 0    | 0     | 1    | 0         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0     | 0     | 1    | 0         | 6      | 2          |
| 17:15       | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0     | 1     | 2    | 1         | 2      | 2          |
| 17:30       | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 2    | 0         | 0                   | 1     | 1     | 1    | 2         | 0                               | 0     | 0     | 0    | 0         | 4      | 3          |
| 17:45       | 0                   | 3     | 0     | 0    | 3         | 0                               | 0    | 0     | 2    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0     | 0     | 3    | 0         | 7      | 5          |
| Total       | 0                   | 11    | 0     | 0    | 11        | 0                               | 0    | 0     | 5    | 0         | 0                   | 6     | 1     | 1    | 7         | 0                               | 0     | 1     | 6    | 1         | 19     | 12         |
| 18:00       | 0                   | 3     | 0     | 0    | 3         | 0                               | 0    | 0     | 0    | 0         | 0                   | 2     | 0     | 1    | 2         | 0                               | 0     | 0     | 2    | 0         | 5      | 3          |
| 18:15       | 0                   | 0     | 0     | 0    | 0         | 0                               | 0    | 0     | 0    | 0         | 0                   | 1     | 0     | 1    | 1         | 0                               | 0     | 0     | 0    | 0         | 1      | 1          |
| 18:30       | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 1    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0     | 0     | 3    | 0         | 1      | 4          |
| 18:45       | 0                   | 3     | 0     | 0    | 3         | 0                               | 0    | 0     | 2    | 0         | 0                   | 1     | 0     | 0    | 1         | 0                               | 0     | 0     | 0    | 0         | 4      | 2          |
| Total       | 0                   | 7     | 0     | 0    | 7         | 0                               | 0    | 0     | 3    | 0         | 0                   | 4     | 0     | 2    | 4         | 0                               | 0     | 0     | 5    | 0         | 11     | 10         |
| Grand Total | 3                   | 34    | 0     | 0    | 37        | 0                               | 0    | 0     | 14   | 0         | 0                   | 49    | 1     | 4    | 50        | 4                               | 0     | 2     | 29   | 6         | 93     | 47         |
| Apprch %    | 8.1%                | 91.9% | 0.0%  |      | 39.8%     | 0.0%                            | 0.0% | 0.0%  |      | 0.0%      | 0.0%                | 98.0% | 2.0%  |      | 66.7%     | 0.0%                            | 33.3% |       |      |           |        |            |
| Total %     | 3.2%                | 36.6% | 0.0%  |      |           | 0.0%                            | 0.0% | 0.0%  |      | 0.0%      | 0.0%                | 52.7% | 1.1%  |      | 53.8%     | 4.3%                            | 0.0%  | 2.2%  |      | 6.5%      | 100.0% |            |

| AM PEAK HOUR                                      | Wolfe Rd Southbound |       |       |      |           | Central Expy EB Ramps Westbound |      |       |      |           | Wolfe Rd Northbound |      |       |      |           | Central Expy EB Ramps Eastbound |      |       |      |           | Total |
|---|---------------------|-------|-------|------|-----------|---------------------------------|------|-------|------|-----------|---------------------|------|-------|------|-----------|---------------------------------|------|-------|------|-----------|-------|
| START TIME  | LEFT                | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 08:30 to 09:30            |                     |       |       |      |           |                                 |      |       |      |           |                     |      |       |      |           |                                 |      |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 08:30 |                     |       |       |      |           |                                 |      |       |      |           |                     |      |       |      |           |                                 |      |       |      |           |       |
| 8:30  | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 3    | 0         | 0                   | 4    | 0     | 0    | 4         | 0                               | 0    | 0     | 1    | 0         | 5     |
| 8:45  | 0                   | 2     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 6    | 0     | 1    | 6         | 1                               | 0    | 0     | 2    | 1         | 9     |
| 9:00  | 0                   | 1     | 0     | 0    | 1         | 0                               | 0    | 0     | 1    | 0         | 0                   | 2    | 0     | 0    | 2         | 0                               | 0    | 0     | 1    | 0         | 3     |
| 9:15  | 1                   | 1     | 0     | 0    | 2         | 0                               | 0    | 0     | 0    | 0         | 0                   | 4    | 0     | 0    | 4         | 0                               | 0    | 0     | 1    | 0         | 6     |
| Total Volume                                      | 1                   | 5     | 0     | 0    | 6         | 0                               | 0    | 0     | 4    | 0         | 0                   | 16   | 0     | 1    | 16        | 1                               | 0    | 0     | 5    | 1         | 23    |
| % App Total                                       | 16.7%               | 83.3% | 0.0%  |      |           | 0.0%                            | 0.0% | 0.0%  |      | 0.0%      | 100.0%              | 0.0% |       |      | 100.0%    | 0.0%                            | 0.0% |       |      |           |       |
| PHF   | .250                | .625  | .000  |      | .750      | .000                            | .000 | .000  |      | .000      | .667                | .000 |       | .667 | .250      | .000                            | .000 |       | .250 |           | .639  |

| PM PEAK HOUR                                      | Wolfe Rd Southbound |        |       |      |           | Central Expy EB Ramps Westbound |      |       |      |           | Wolfe Rd Northbound |       |       |      |           | Central Expy EB Ramps Eastbound |        |       |      |           | Total |
|---|---------------------|--------|-------|------|-----------|---------------------------------|------|-------|------|-----------|---------------------|-------|-------|------|-----------|---------------------------------|--------|-------|------|-----------|-------|
| START TIME  | LEFT                | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                | THRU  | RIGHT | PEDS | APP.TOTAL | LEFT                            | THRU   | RIGHT | PEDS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:15 to 18:15            |                     |        |       |      |           |                                 |      |       |      |           |                     |       |       |      |           |                                 |        |       |      |           |       |
| Peak Hour For Entire Intersection Begins at 17:15 |                     |        |       |      |           |                                 |      |       |      |           |                     |       |       |      |           |                                 |        |       |      |           |       |
| 17:15   | 0                   | 1      | 0     | 0    | 1         | 0                               | 0    | 0     | 0    | 0         | 0                   | 0     | 0     | 0    | 0         | 0                               | 0      | 1     | 2    | 1         | 2     |
| 17:30   | 0                   | 2      | 0     | 0    | 2         | 0                               | 0    | 0     | 2    | 0         | 0                   | 1     | 1     | 1    | 2         | 0                               | 0      | 0     | 0    | 0         | 4     |
| 17:45   | 0                   | 3      | 0     | 0    | 3         | 0                               | 0    | 0     | 2    | 0         | 0                   | 4     | 0     | 0    | 4         | 0                               | 0      | 0     | 3    | 0         | 7     |
| 18:00   | 0                   | 3      | 0     | 0    | 3         | 0                               | 0    | 0     | 0    | 0         | 0                   | 2     | 0     | 1    | 2         | 0                               | 0      | 0     | 2    | 0         | 5     |
| Total Volume                                      | 0                   | 9      | 0     | 0    | 9         | 0                               | 0    | 0     | 4    | 0         | 0                   | 7     | 1     | 2    | 8         | 0                               | 0      | 1     | 7    | 1         | 18    |
| % App Total                                       | 0.0%                | 100.0% | 0.0%  |      |           | 0.0%                            | 0.0% | 0.0%  |      | 0.0%      | 87.5%               | 12.5% |       |      | 0.0%      | 0.0%                            | 100.0% |       |      |           |       |
| PHF   | .000                | .750   | .000  |      | .750      | .000                            | .000 | .000  |      | .000      | .438                | .250  |       | .500 | .000      | .000                            | .250   |       | .250 |           | .643  |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Utturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-012 N Wolfe Road & Central Expressway EB Ramps  
 Date : 12/2/2015

**Unshifted Count = All Vehicles & Utturns**

| START TIME  | N Wolfe Road Southbound |       |       |        |           | Central Expressway EB Ramps Westbound |      |       |        |           | N Wolfe Road Northbound |       |       |        |           | Central Expressway EB Ramps Eastbound |      |       |        |           | Total  | Utturns Total |
|-------------|-------------------------|-------|-------|--------|-----------|---------------------------------------|------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|---------------------------------------|------|-------|--------|-----------|--------|---------------|
|             | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                                  | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                                  | THRU | RIGHT | UTURNS | APP.TOTAL |        |               |
| 14:00       | 14                      | 138   | 0     | 1      | 153       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 156   | 39    | 0      | 195       | 22                                    | 0    | 48    | 0      | 70        | 418    | 1             |
| 14:15       | 12                      | 154   | 0     | 0      | 166       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 154   | 32    | 0      | 186       | 17                                    | 0    | 30    | 0      | 47        | 399    | 0             |
| 14:30       | 16                      | 146   | 0     | 0      | 162       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 134   | 40    | 0      | 174       | 17                                    | 1    | 59    | 0      | 77        | 413    | 0             |
| 14:45       | 25                      | 139   | 0     | 0      | 164       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 131   | 31    | 0      | 162       | 18                                    | 1    | 45    | 0      | 64        | 390    | 0             |
| Total       | 67                      | 577   | 0     | 1      | 645       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 575   | 142   | 0      | 717       | 74                                    | 2    | 182   | 0      | 258       | 1620   | 1             |
| 15:00       | 25                      | 148   | 0     | 0      | 173       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 137   | 36    | 0      | 173       | 16                                    | 1    | 57    | 0      | 74        | 420    | 0             |
| 15:15       | 22                      | 186   | 0     | 0      | 208       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 140   | 28    | 0      | 168       | 20                                    | 0    | 50    | 0      | 70        | 446    | 0             |
| 15:30       | 19                      | 184   | 0     | 0      | 203       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 148   | 34    | 0      | 182       | 21                                    | 0    | 58    | 0      | 79        | 464    | 0             |
| 15:45       | 29                      | 187   | 0     | 1      | 217       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 145   | 19    | 0      | 164       | 21                                    | 0    | 51    | 0      | 72        | 453    | 1             |
| Total       | 95                      | 705   | 0     | 1      | 801       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 570   | 117   | 0      | 687       | 78                                    | 1    | 216   | 0      | 295       | 1783   | 1             |
| Grand Total | 162                     | 1282  | 0     | 2      | 1446      | 0                                     | 0    | 0     | 0      | 0         | 0                       | 1145  | 259   | 0      | 1404      | 152                                   | 3    | 398   | 0      | 553       | 3403   | 2             |
| Apprch %    | 11.2%                   | 88.7% | 0.0%  | 0.1%   |           | 0.0%                                  | 0.0% | 0.0%  | 0.0%   |           | 0.0%                    | 81.6% | 18.4% | 0.0%   |           | 27.5%                                 | 0.5% | 72.0% | 0.0%   |           |        |               |
| Total %     | 4.8%                    | 37.7% | 0.0%  | 0.1%   | 42.5%     | 0.0%                                  | 0.0% | 0.0%  | 0.0%   | 0.0%      | 0.0%                    | 33.6% | 7.6%  | 0.0%   | 41.3%     | 4.5%                                  | 0.1% | 11.7% | 0.0%   | 16.3%     | 100.0% |               |

| PM PEAK HOUR                                      | N Wolfe Road Southbound |       |       |        |           | Central Expressway EB Ramps Westbound |      |       |        |           | N Wolfe Road Northbound |       |       |        |           | Central Expressway EB Ramps Eastbound |      |       |        |           | Total |
|---|-------------------------|-------|-------|--------|-----------|---------------------------------------|------|-------|--------|-----------|-------------------------|-------|-------|--------|-----------|---------------------------------------|------|-------|--------|-----------|-------|
|   | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                                  | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT                    | THRU  | RIGHT | UTURNS | APP.TOTAL | LEFT                                  | THRU | RIGHT | UTURNS | APP.TOTAL |       |
| Peak Hour Analysis From 15:00 to 16:00            |                         |       |       |        |           |                                       |      |       |        |           |                         |       |       |        |           |                                       |      |       |        |           |       |
| Peak Hour For Entire Intersection Begins at 15:00 |                         |       |       |        |           |                                       |      |       |        |           |                         |       |       |        |           |                                       |      |       |        |           |       |
| 15:00   | 25                      | 148   | 0     | 0      | 173       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 137   | 36    | 0      | 173       | 16                                    | 1    | 57    | 0      | 74        | 420   |
| 15:15   | 22                      | 186   | 0     | 0      | 208       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 140   | 28    | 0      | 168       | 20                                    | 0    | 50    | 0      | 70        | 446   |
| 15:30   | 19                      | 184   | 0     | 0      | 203       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 148   | 34    | 0      | 182       | 21                                    | 0    | 58    | 0      | 79        | 464   |
| 15:45   | 29                      | 187   | 0     | 1      | 217       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 145   | 19    | 0      | 164       | 21                                    | 0    | 51    | 0      | 72        | 453   |
| Total Volume                                      | 95                      | 705   | 0     | 1      | 801       | 0                                     | 0    | 0     | 0      | 0         | 0                       | 570   | 117   | 0      | 687       | 78                                    | 1    | 216   | 0      | 295       | 1783  |
| % App Total                                       | 11.9%                   | 88.0% | 0.0%  | 0.1%   |           | 0.0%                                  | 0.0% | 0.0%  | 0.0%   |           | 0.0%                    | 83.0% | 17.0% | 0.0%   |           | 26.4%                                 | 0.3% | 73.2% | 0.0%   |           |       |
| PHF   | .819                    | .943  | .000  | .250   | .923      | .000                                  | .000 | .000  | .000   | .000      | .000                    | .963  | .813  | .000   | .944      | .929                                  | .250 | .931  | .000   | .934      | .961  |

### ALL TRAFFIC DATA

City of Sunnyvale  
 All Vehicles & Uturns On Unshifted  
 Bikes & Peds On Bank 1  
 Nothing On Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7936-012 N Wolfe Road & Central Expressway EB Ramps  
 Date : 12/2/2015

**Bank 1 Count = Bikes & Peds**

| START TIME         | N Wolfe Road Southbound |        |       |      |           | Central Expressway EB Ramps Westbound |      |       |      |           | N Wolfe Road Northbound |        |       |      |           | Central Expressway EB Ramps Eastbound |      |       |      |           | Total  | Peds Total |
|--------------------|-------------------------|--------|-------|------|-----------|---------------------------------------|------|-------|------|-----------|-------------------------|--------|-------|------|-----------|---------------------------------------|------|-------|------|-----------|--------|------------|
|                    | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                                  | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                                  | THRU | RIGHT | PEDS | APP.TOTAL |        |            |
| 14:00              | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 3      | 0     | 1    | 3         | 0                                     | 0    | 0     | 6    | 0         | 4      | 8          |
| 14:15              | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 2    | 0         | 4      | 3          |
| 14:30              | 0                       | 2      | 0     | 0    | 2         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 7    | 0         | 3      | 7          |
| 14:45              | 0                       | 0      | 0     | 0    | 0         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 3      | 0     | 0    | 3         | 0                                     | 0    | 0     | 11   | 0         | 3      | 12         |
| <b>Total</b>       | 0                       | 5      | 0     | 0    | 5         | 0                                     | 0    | 0     | 3    | 0         | 0                       | 9      | 0     | 1    | 9         | 0                                     | 0    | 0     | 26   | 0         | 14     | 30         |
| 15:00              | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 4    | 0         | 2      | 5          |
| 15:15              | 0                       | 4      | 0     | 0    | 4         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 5    | 0         | 5      | 5          |
| 15:30              | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 2    | 0         | 2      | 2          |
| 15:45              | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 6      | 0     | 0    | 6         | 0                                     | 0    | 0     | 2    | 0         | 7      | 3          |
| <b>Total</b>       | 0                       | 7      | 0     | 0    | 7         | 0                                     | 0    | 0     | 2    | 0         | 0                       | 9      | 0     | 0    | 9         | 0                                     | 0    | 0     | 13   | 0         | 16     | 15         |
| <b>Grand Total</b> | 0                       | 12     | 0     | 0    | 12        | 0                                     | 0    | 0     | 5    | 0         | 0                       | 18     | 0     | 1    | 18        | 0                                     | 0    | 0     | 39   | 0         | 30     | 45         |
| Apprch %           | 0.0%                    | 100.0% | 0.0%  |      |           | 0.0%                                  | 0.0% | 0.0%  |      |           | 0.0%                    | 100.0% | 0.0%  |      |           | 0.0%                                  | 0.0% | 0.0%  |      |           |        |            |
| Total %            | 0.0%                    | 40.0%  | 0.0%  |      | 40.0%     | 0.0%                                  | 0.0% | 0.0%  |      | 0.0%      | 0.0%                    | 60.0%  | 0.0%  |      | 60.0%     | 0.0%                                  | 0.0% | 0.0%  |      | 0.0%      | 100.0% |            |

| PM PEAK HOUR                                      | N Wolfe Road Southbound |        |       |      |           | Central Expressway EB Ramps Westbound |      |       |      |           | N Wolfe Road Northbound |        |       |      |           | Central Expressway EB Ramps Eastbound |      |       |      |           | Total |  |
|---|-------------------------|--------|-------|------|-----------|---------------------------------------|------|-------|------|-----------|-------------------------|--------|-------|------|-----------|---------------------------------------|------|-------|------|-----------|-------|--|
|   | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                                  | THRU | RIGHT | PEDS | APP.TOTAL | LEFT                    | THRU   | RIGHT | PEDS | APP.TOTAL | LEFT                                  | THRU | RIGHT | PEDS | APP.TOTAL |       |  |
| Peak Hour Analysis From 15:00 to 16:00            |                         |        |       |      |           |                                       |      |       |      |           |                         |        |       |      |           |                                       |      |       |      |           |       |  |
| Peak Hour For Entire Intersection Begins at 15:00 |                         |        |       |      |           |                                       |      |       |      |           |                         |        |       |      |           |                                       |      |       |      |           |       |  |
| 15:00   | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 4    | 0         | 2     |  |
| 15:15   | 0                       | 4      | 0     | 0    | 4         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 5    | 0         | 5     |  |
| 15:30   | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 0    | 0         | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 2    | 0         | 2     |  |
| 15:45   | 0                       | 1      | 0     | 0    | 1         | 0                                     | 0    | 0     | 1    | 0         | 0                       | 6      | 0     | 0    | 6         | 0                                     | 0    | 0     | 2    | 0         | 7     |  |
| <b>Total Volume</b>                               | 0                       | 7      | 0     | 0    | 7         | 0                                     | 0    | 0     | 2    | 0         | 0                       | 9      | 0     | 0    | 9         | 0                                     | 0    | 0     | 13   | 0         | 16    |  |
| <b>% App Total</b>                                | 0.0%                    | 100.0% | 0.0%  |      |           | 0.0%                                  | 0.0% | 0.0%  |      |           | 0.0%                    | 100.0% | 0.0%  |      |           | 0.0%                                  | 0.0% | 0.0%  |      |           |       |  |
| PHF   | .000                    | .438   | .000  |      | .438      | .000                                  | .000 | .000  |      | .000      | .000                    | .375   | .000  |      | .375      | .000                                  | .000 | .000  |      | .000      | .571  |  |

**Appendix B**  
**Volume Summary Tables**

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 1

Intersection Name: Mathilda Ave &amp; SR 237 WB Ramps

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 11/00/15

Scenario: Summit School TIA

| Scenario:                       | Movements      |     |    |               |    |     |                |      |     |               |    |    | Total |
|---------------------------------|----------------|-----|----|---------------|----|-----|----------------|------|-----|---------------|----|----|-------|
|                                 | North Approach |     |    | East Approach |    |     | South Approach |      |     | West Approach |    |    |       |
|                                 | RT             | TH  | LT | RT            | TH | LT  | RT             | TH   | LT  | RT            | TH | LT |       |
| Existing Conditions             | 99             | 254 | 0  | 273           | 36 | 531 | 0              | 2342 | 134 | 0             | 0  | 0  | 3669  |
| <b>Approved Project Trips</b>   |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1080 Stewart Dr                 |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1100 N. Mathilda Ave            | 11             | 27  |    | 12            |    |     |                | 51   |     |               |    |    | 101   |
| 1235 Bordeaux Dr                | 14             | 27  |    | 13            |    |     |                | 43   |     |               |    |    | 97    |
| 696 N. Mathilda Ave             |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 725 S. Fair Oaks Ave            |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 750 Lakeway Dr                  |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 767 N. Mathilda Ave             |                | 9   |    |               |    | 14  |                | 7    | 10  |               |    |    | 40    |
| 830 E. El Camino Real           |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 861 E. El Camino Real           |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1050 Kifer Rd                   |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1081 Innovation Way             | 3              | 6   |    | 113           |    |     |                | 638  |     |               |    |    | 760   |
| 1111 Lockheed Martin Way        | 12             | 40  |    | 42            |    |     |                | 156  |     |               |    |    | 250   |
| 1152 Bordeaux Dr                | 13             | 46  |    | 65            |    |     |                | 283  |     |               |    |    | 407   |
| 1184 N. Mathilda Ave            | 8              | 23  |    | 22            |    |     |                | 156  |     |               |    |    | 209   |
| 1212 Bordeaux Dr                | 6              | 9   |    | 21            |    |     |                | 97   |     |               |    |    | 133   |
| 1221 Crossman Ave               | 3              | 5   |    |               |    |     |                | 110  |     |               |    |    | 118   |
| 215 Moffett Park Dr             | 11             | 18  |    | 7             |    |     |                | 62   |     |               |    |    | 98    |
| 221 N. Mathilda Ave             |                |     |    |               |    | 21  |                |      |     |               |    |    | 21    |
| 280 Santa Ana Ct                |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 495 E. Java Dr & 549 Baltic Way |                | 3   |    |               |    |     |                | 66   |     |               |    |    | 69    |
| 520 Almanor Ave                 |                |     |    |               |    | 28  |                |      |     |               |    |    | 28    |
| 589 W. Java Dr                  | 21             | 14  |    |               |    |     |                | 170  |     |               |    |    | 205   |
| 615 N. Mathilda Ave             |                |     |    |               |    | 29  |                |      |     |               |    |    | 29    |
| 684 W. Maude Ave                |                |     |    |               |    | 39  |                |      |     |               |    |    | 39    |
| 1120 Kifer Rd                   |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 2502 Town Center Ln             |                | 5   |    |               |    | 8   |                | 3    |     |               |    |    | 16    |
| 675 Almanor Avenue              |                |     |    |               |    | 15  |                |      |     |               |    |    | 15    |
| 1111, 1139 Karlstad Dr          |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 423 E. Maude Ave                |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 460 Persian Dr                  |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 520-550, 610 Weddell Dr         |                | -3  |    |               |    |     |                | 8    |     |               |    |    | 5     |
| 625 E. Taylor Ave               |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 680-698 E. Taylor Ave           |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 915 De Guigne Dr                |                |     |    |               |    |     |                |      |     |               |    |    |       |
| City Place (Phase 1-3)          |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 840 E. El Camino Real           |                |     |    |               |    |     |                |      |     |               |    |    |       |
| Irvine Company - Pathline Park  |                |     |    |               |    | 80  |                |      |     |               |    |    | 80    |
| <i>Total Approved Trips</i>     | 102            | 229 | 0  | 295           | 0  | 234 | 0              | 1850 | 10  | 0             | 0  | 0  | 2720  |
| Background Conditions           | 201            | 483 | 0  | 568           | 36 | 765 | 0              | 4192 | 144 | 0             | 0  | 0  | 6389  |
| <b>Project Trips</b>            | 0              | 0   | 0  | 0             | 0  | 14  | 0              | 0    | 0   | 0             | 0  | 0  | 14    |
| Existing + Project              | 99             | 254 | 0  | 273           | 36 | 545 | 0              | 2342 | 134 | 0             | 0  | 0  | 3683  |
| Background + Project            | 201            | 483 | 0  | 568           | 36 | 779 | 0              | 4192 | 144 | 0             | 0  | 0  | 6403  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 2

Intersection Name: Mathilda Ave &amp; SR 237 EB Ramps

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 11/00/15

Scenario: Summit School TIA

| Scenario:                       | Movements      |      |     |               |    |    |                |      |    |               |    |      | Total |
|---------------------------------|----------------|------|-----|---------------|----|----|----------------|------|----|---------------|----|------|-------|
|                                 | North Approach |      |     | East Approach |    |    | South Approach |      |    | West Approach |    |      |       |
|                                 | RT             | TH   | LT  | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT   |       |
| Existing Conditions             | 0              | 740  | 45  | 0             | 0  | 0  | 732            | 1631 | 0  | 72            | 0  | 845  | 4065  |
| <b>Approved Project Trips</b>   |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 1080 Stewart Dr                 |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 1100 N. Mathilda Ave            |                | 19   | 8   |               |    |    |                | 26   |    |               |    | 25   | 78    |
| 1235 Bordeaux Dr                |                | 14   | 14  |               |    |    |                | 17   |    |               |    | 26   | 71    |
| 696 N. Mathilda Ave             |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 725 S. Fair Oaks Ave            |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 750 Lakeway Dr                  |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 767 N. Mathilda Ave             |                | 23   |     |               |    |    | 10             | 17   |    | 14            |    |      | 64    |
| 830 E. El Camino Real           |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 861 E. El Camino Real           |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 1050 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 1081 Innovation Way             |                | 5    | 1   |               |    |    |                | 383  |    |               |    | 255  | 644   |
| 1111 Lockheed Martin Way        |                | 28   | 12  |               |    |    |                | 92   |    |               |    | 64   | 196   |
| 1152 Bordeaux Dr                |                | 33   | 13  |               |    |    |                | 156  |    |               |    | 127  | 329   |
| 1184 N. Mathilda Ave            |                | 18   | 5   |               |    |    |                | 84   |    |               |    | 72   | 179   |
| 1212 Bordeaux Dr                |                | 6    | 3   |               |    |    |                | 52   |    |               |    | 45   | 106   |
| 1221 Crossman Ave               |                | 5    |     |               |    |    |                | 27   |    |               |    | 83   | 115   |
| 215 Moffett Park Dr             |                | 15   | 3   |               |    |    |                | 35   |    |               |    | 27   | 80    |
| 221 N. Mathilda Ave             |                | 21   |     |               |    |    | 3              |      |    |               |    |      | 24    |
| 280 Santa Ana Ct                |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 495 E. Java Dr & 549 Baltic Way |                | 3    |     |               |    |    |                | 16   |    |               |    | 50   | 69    |
| 520 Almanor Ave                 |                | 28   |     |               |    |    | 4              |      |    |               |    |      | 32    |
| 589 W. Java Dr                  |                | 14   |     |               |    |    |                | 70   |    |               |    | 100  | 184   |
| 615 N. Mathilda Ave             |                | 29   |     |               |    |    | -7             |      |    |               |    |      | 22    |
| 684 W. Maude Ave                |                | 39   |     |               |    |    | 6              |      |    |               |    |      | 45    |
| 1120 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 2502 Town Center Ln             |                | 13   |     |               |    |    | 13             | 3    |    |               |    |      | 29    |
| 675 Almanor Avenue              |                | 15   |     |               |    |    | 3              |      |    |               |    |      | 18    |
| 1111, 1139 Karlstad Dr          |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 423 E. Maude Ave                |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 460 Persian Dr                  |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 520-550, 610 Weddell Dr         |                | -3   |     |               |    |    |                | 8    |    |               |    |      | 5     |
| 625 E. Taylor Ave               |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 680-698 E. Taylor Ave           |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 701-755 E. Evelyn Ave           |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 915 De Guigne Dr                |                |      |     |               |    |    |                |      |    |               |    |      |       |
| City Place (Phase 1-3)          |                |      |     |               |    |    |                |      |    |               |    |      |       |
| 840 E. El Camino Real           |                |      |     |               |    |    |                |      |    |               |    |      |       |
| Irvine Company - Pathline Park  |                | 80   |     |               |    |    | 14             |      |    |               |    |      | 94    |
| <i>Total Approved Trips</i>     | 0              | 405  | 59  | 0             | 0  | 0  | 46             | 986  | 0  | 14            | 0  | 874  | 2384  |
| Background Conditions           | 0              | 1145 | 104 | 0             | 0  | 0  | 778            | 2617 | 0  | 86            | 0  | 1719 | 6449  |
| <b>Project Trips</b>            | 0              | 14   | 0   | 0             | 0  | 0  | 12             | 0    | 0  | 0             | 0  | 0    | 26    |
| Existing + Project              | 0              | 754  | 45  | 0             | 0  | 0  | 744            | 1631 | 0  | 72            | 0  | 845  | 4091  |
| Background + Project            | 0              | 1159 | 104 | 0             | 0  | 0  | 790            | 2617 | 0  | 86            | 0  | 1719 | 6475  |

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 3  
 Intersection Name: Mathilda Ave & Ross Dr  
 Peak Hour: AM  
 Count Date: 11/00/15  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |      |    |               |    |     |                |      |     |               |    |    | Total |
|---------------------------------|----------------|------|----|---------------|----|-----|----------------|------|-----|---------------|----|----|-------|
|                                 | North Approach |      |    | East Approach |    |     | South Approach |      |     | West Approach |    |    |       |
|                                 | RT             | TH   | LT | RT            | TH | LT  | RT             | TH   | LT  | RT            | TH | LT |       |
| Existing Conditions             | 96             | 689  | 27 | 185           | 31 | 185 | 79             | 2152 | 115 | 39            | 3  | 26 | 3627  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1080 Stewart Dr                 |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1100 N. Mathilda Ave            |                | 19   |    |               |    |     |                | 26   |     |               |    |    | 45    |
| 1235 Bordeaux Dr                |                | 14   |    |               |    |     |                | 17   |     |               |    |    | 31    |
| 696 N. Mathilda Ave             |                |      |    |               |    | 12  | 11             |      |     |               |    |    | 23    |
| 725 S. Fair Oaks Ave            |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 750 Lakeway Dr                  |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 767 N. Mathilda Ave             |                | 37   |    |               |    |     |                | 27   |     |               |    |    | 64    |
| 830 E. El Camino Real           |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 861 E. El Camino Real           |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1050 Kifer Rd                   |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1081 Innovation Way             |                | 5    |    |               |    |     |                | 383  |     |               |    |    | 388   |
| 1111 Lockheed Martin Way        |                | 27   | 1  | 1             |    |     |                | 92   |     |               |    |    | 121   |
| 1152 Bordeaux Dr                |                | 31   | 2  | 8             |    |     |                | 148  |     |               |    |    | 189   |
| 1184 N. Mathilda Ave            |                | 18   |    |               |    |     |                | 84   |     |               |    |    | 102   |
| 1212 Bordeaux Dr                |                | 6    |    |               |    |     |                | 52   |     |               |    |    | 58    |
| 1221 Crossman Ave               |                | 5    |    | 1             |    |     |                | 25   |     |               |    |    | 31    |
| 215 Moffett Park Dr             |                | 14   | 1  | 2             |    |     |                | 33   |     |               |    |    | 50    |
| 221 N. Mathilda Ave             |                | 21   |    |               |    |     |                | 3    |     |               |    |    | 24    |
| 280 Santa Ana Ct                |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 495 E. Java Dr & 549 Baltic Way |                | 3    |    |               |    |     |                | 16   |     |               |    |    | 19    |
| 520 Almanor Ave                 |                | 28   |    |               |    |     |                | 4    |     |               |    |    | 32    |
| 589 W. Java Dr                  |                | 14   |    |               |    |     |                | 70   |     |               |    |    | 84    |
| 615 N. Mathilda Ave             |                | 29   |    |               |    |     |                | -7   |     |               |    |    | 22    |
| 684 W. Maude Ave                |                | 39   |    |               |    |     |                | 6    |     |               |    |    | 45    |
| 1120 Kifer Rd                   |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 2502 Town Center Ln             |                | 13   |    |               |    |     |                | 16   |     |               |    |    | 29    |
| 675 Almanor Avenue              |                | 15   |    |               |    |     |                | 3    |     |               |    |    | 18    |
| 1111, 1139 Karlstad Dr          |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 423 E. Maude Ave                |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 460 Persian Dr                  |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 520-550, 610 Weddell Dr         |                |      | -3 | 8             |    |     |                |      |     |               |    |    | 5     |
| 625 E. Taylor Ave               |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 680-698 E. Taylor Ave           |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 915 De Guigne Dr                |                |      |    |               |    |     |                |      |     |               |    |    |       |
| City Place (Phase 1-3)          |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 840 E. El Camino Real           |                |      |    |               |    |     |                |      |     |               |    |    |       |
| Irvine Company - Pathline Park  |                | 80   |    |               |    |     |                | 14   |     |               |    |    | 94    |
| <i>Total Approved Trips</i>     | 0              | 418  | 1  | 20            | 0  | 12  | 11             | 1012 | 0   | 0             | 0  | 0  | 1474  |
| Background Conditions           | 96             | 1107 | 28 | 205           | 31 | 197 | 90             | 3164 | 115 | 39            | 3  | 26 | 5101  |
| <b>Project Trips</b>            | 0              | 14   | 0  | 0             | 0  | 8   | 4              | 12   | 0   | 0             | 0  | 0  | 38    |
| Existing + Project              | 96             | 703  | 27 | 185           | 31 | 193 | 83             | 2164 | 115 | 39            | 3  | 26 | 3665  |
| Background + Project            | 96             | 1121 | 28 | 205           | 31 | 205 | 94             | 3176 | 115 | 39            | 3  | 26 | 5139  |



## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 4  
 Intersection Name: Mathilda Ave & Almanor Ave  
 Peak Hour: AM  
 Count Date: 11/00/15  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |      |    |               |    |     |                |      |     |               |    |     | Total |
|---------------------------------|----------------|------|----|---------------|----|-----|----------------|------|-----|---------------|----|-----|-------|
|                                 | North Approach |      |    | East Approach |    |     | South Approach |      |     | West Approach |    |     |       |
|                                 | RT             | TH   | LT | RT            | TH | LT  | RT             | TH   | LT  | RT            | TH | LT  |       |
| Existing Conditions             | 417            | 1341 | 84 | 221           | 53 | 42  | 24             | 2384 | 78  | 20            | 9  | 96  | 4769  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 1080 Stewart Dr                 |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 1100 N. Mathilda Ave            |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 1235 Bordeaux Dr                |                | 5    |    |               |    |     |                | 4    |     |               |    |     | 9     |
| 696 N. Mathilda Ave             |                | 12   |    |               |    |     |                | 11   |     |               |    |     | 23    |
| 725 S. Fair Oaks Ave            |                | 7    |    |               |    |     |                | 5    |     |               |    |     | 12    |
| 750 Lakeway Dr                  |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 767 N. Mathilda Ave             |                | 68   |    |               |    |     |                | 35   | 17  |               |    | 15  | 135   |
| 830 E. El Camino Real           |                | 5    |    |               |    |     |                | 4    |     |               |    |     | 9     |
| 861 E. El Camino Real           |                | 6    |    |               |    |     |                | 5    |     |               |    |     | 11    |
| 1050 Kifer Rd                   |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 1081 Innovation Way             |                | 2    |    |               |    |     |                | 135  |     |               |    |     | 137   |
| 1111 Lockheed Martin Way        |                | 15   |    |               |    |     |                | 49   |     |               |    |     | 64    |
| 1152 Bordeaux Dr                |                | 18   |    |               |    |     |                | 85   |     |               |    |     | 103   |
| 1184 N. Mathilda Ave            | 1              | 8    |    |               |    |     |                | 34   |     |               |    | 5   | 48    |
| 1212 Bordeaux Dr                |                | 2    |    |               | 1  |     |                | 24   |     |               |    |     | 27    |
| 1221 Crossman Ave               |                | 5    |    |               | 2  |     |                | 23   |     |               |    |     | 30    |
| 215 Moffett Park Dr             |                | 7    | 1  |               | 3  |     |                | 16   |     |               |    |     | 27    |
| 221 N. Mathilda Ave             |                | 45   |    |               |    |     |                | 7    |     |               |    |     | 52    |
| 280 Santa Ana Ct                |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 495 E. Java Dr & 549 Baltic Way |                | 3    |    |               |    |     |                | 16   |     |               |    |     | 19    |
| 520 Almanor Ave                 |                |      |    |               | 2  |     |                |      | 93  | 8             |    | 15  | 212   |
| 589 W. Java Dr                  | 2              | 5    |    |               |    |     |                | 30   |     |               |    | 11  | 48    |
| 615 N. Mathilda Ave             | 43             | 49   |    |               |    |     |                |      |     |               |    | -20 | 72    |
| 684 W. Maude Ave                |                | 206  |    |               |    |     |                | 29   |     |               |    |     | 235   |
| 1120 Kifer Rd                   |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 2502 Town Center Ln             |                | 47   |    |               |    |     |                | 61   |     |               |    |     | 108   |
| 675 Almanor Avenue              | 56             |      |    |               |    |     |                |      | 15  | 3             |    | 11  | 85    |
| 1111, 1139 Karlstad Dr          |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 423 E. Maude Ave                |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 460 Persian Dr                  |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 520-550, 610 Weddell Dr         |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 625 E. Taylor Ave               |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 680-698 E. Taylor Ave           |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 701-755 E. Evelyn Ave           |                | -54  |    |               |    |     |                | 17   |     |               |    |     | -37   |
| 915 De Guigne Dr                |                |      |    |               |    |     |                |      |     |               |    |     |       |
| City Place (Phase 1-3)          |                |      |    |               |    |     |                |      |     |               |    |     |       |
| 840 E. El Camino Real           |                |      |    |               |    |     |                |      |     |               |    |     |       |
| Irvine Company - Pathline Park  | 259            | 173  |    |               |    |     |                | 14   |     |               |    | 60  | 506   |
| <i>Total Approved Trips</i>     | 455            | 634  | 1  | 6             | 2  | 0   | 0              | 604  | 125 | 11            | 0  | 97  | 1935  |
| Background Conditions           | 872            | 1975 | 85 | 227           | 55 | 42  | 24             | 2988 | 203 | 31            | 9  | 193 | 6704  |
| <b>Project Trips</b>            | 0              | 105  | 0  | 86            | 0  | 59  | 0              | 0    | 0   | 0             | 0  | 0   | 250   |
| Existing + Project              | 417            | 1446 | 84 | 307           | 53 | 101 | 24             | 2384 | 78  | 20            | 9  | 96  | 5019  |
| Background + Project            | 872            | 2080 | 85 | 313           | 55 | 101 | 24             | 2988 | 203 | 31            | 9  | 193 | 6954  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 5  
 Intersection Name: Mathilda Ave & San Aleso Ave  
 Peak Hour: AM  
 Count Date: 11/00/15  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |      |     |               |    |    |                |      |    |               |    |    | Total |
|---------------------------------|----------------|------|-----|---------------|----|----|----------------|------|----|---------------|----|----|-------|
|                                 | North Approach |      |     | East Approach |    |    | South Approach |      |    | West Approach |    |    |       |
|                                 | RT             | TH   | LT  | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT |       |
| Existing Conditions             | 44             | 1227 | 63  | 19            | 2  | 41 | 56             | 2374 | 31 | 5             | 0  | 7  | 3869  |
| <b>Approved Project Trips</b>   |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 1080 Stewart Dr                 |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 1100 N. Mathilda Ave            |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 1235 Bordeaux Dr                |                | 5    |     |               |    |    |                | 4    |    |               |    |    | 9     |
| 696 N. Mathilda Ave             |                | -18  | 30  |               | 6  | 33 |                | 6    |    |               |    |    | 57    |
| 725 S. Fair Oaks Ave            |                | 7    |     |               |    |    |                | 5    |    |               |    |    | 12    |
| 750 Lakeway Dr                  |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 767 N. Mathilda Ave             |                | 12   | 35  |               |    |    |                | 17   |    |               |    |    | 64    |
| 830 E. El Camino Real           |                | 5    |     |               |    |    |                | 4    |    |               |    |    | 9     |
| 861 E. El Camino Real           |                | 6    |     |               |    |    |                | 5    |    |               |    |    | 11    |
| 1050 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 1081 Innovation Way             |                | 2    |     |               |    |    |                | 135  |    |               |    |    | 137   |
| 1111 Lockheed Martin Way        |                | 15   |     |               |    |    |                | 49   |    |               |    |    | 64    |
| 1152 Bordeaux Dr                |                | 18   |     |               |    |    |                | 85   |    |               |    |    | 103   |
| 1184 N. Mathilda Ave            |                | 7    | 1   |               | 2  |    |                | 32   |    |               |    |    | 42    |
| 1212 Bordeaux Dr                |                | 2    |     |               |    |    |                | 24   |    |               |    |    | 26    |
| 1221 Crossman Ave               |                | 5    |     |               |    |    |                | 23   |    |               |    |    | 28    |
| 215 Moffett Park Dr             |                | 7    |     |               |    |    |                | 16   |    |               |    |    | 23    |
| 221 N. Mathilda Ave             |                | 45   |     |               |    |    |                | 7    |    |               |    |    | 52    |
| 280 Santa Ana Ct                |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 495 E. Java Dr & 549 Baltic Way |                | 3    |     |               |    |    |                | 16   |    |               |    |    | 19    |
| 520 Almanor Ave                 |                | 8    |     |               |    |    |                | 93   |    |               |    |    | 101   |
| 589 W. Java Dr                  |                | 5    |     |               |    |    |                | 30   |    |               |    |    | 35    |
| 615 N. Mathilda Ave             |                | 49   |     |               |    |    |                |      |    |               |    |    | 49    |
| 684 W. Maude Ave                |                | 206  |     |               |    |    |                | 29   |    |               |    |    | 235   |
| 1120 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 2502 Town Center Ln             |                | 47   |     |               |    |    |                | 61   |    |               |    |    | 108   |
| 675 Almanor Avenue              |                | 2    | 1   |               | 3  |    |                | 12   |    |               |    |    | 18    |
| 1111, 1139 Karlstad Dr          |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 423 E. Maude Ave                |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 460 Persian Dr                  |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 520-550, 610 Weddell Dr         |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 625 E. Taylor Ave               |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 680-698 E. Taylor Ave           |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 701-755 E. Evelyn Ave           |                | -54  |     |               |    |    |                | 17   |    |               |    |    | -37   |
| 915 De Guigne Dr                |                |      |     |               |    |    |                |      |    |               |    |    |       |
| City Place (Phase 1-3)          |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 840 E. El Camino Real           |                |      |     |               |    |    |                |      |    |               |    |    |       |
| Irvine Company - Pathline Park  |                | 173  |     |               |    |    |                | 14   |    |               |    |    | 187   |
| <i>Total Approved Trips</i>     | 0              | 557  | 67  | 11            | 0  | 33 | 0              | 684  | 0  | 0             | 0  | 0  | 1352  |
| Background Conditions           | 44             | 1784 | 130 | 30            | 2  | 74 | 56             | 3058 | 31 | 5             | 0  | 7  | 5221  |
| <b>Project Trips</b>            | 0              | 59   | 105 | 0             | 0  | 0  | 168            | 0    | 0  | 0             | 0  | 0  | 332   |
| Existing + Project              | 44             | 1286 | 168 | 19            | 2  | 41 | 224            | 2374 | 31 | 5             | 0  | 7  | 4201  |
| Background + Project            | 44             | 1843 | 235 | 30            | 2  | 74 | 224            | 3058 | 31 | 5             | 0  | 7  | 5553  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 6  
 Intersection Name: Mathilda Ave & Maude Ave  
 Peak Hour: AM  
 Count Date: 11/00/15  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |     |     |               |     |     |                |      |     |               |     |     | Total |
|---------------------------------|----------------|-----|-----|---------------|-----|-----|----------------|------|-----|---------------|-----|-----|-------|
|                                 | North Approach |     |     | East Approach |     |     | South Approach |      |     | West Approach |     |     |       |
|                                 | RT             | TH  | LT  | RT            | TH  | LT  | RT             | TH   | LT  | RT            | TH  | LT  |       |
| Existing Conditions             | 337            | 644 | 142 | 276           | 370 | 149 | 47             | 2050 | 421 | 69            | 99  | 98  | 4702  |
| <b>Approved Project Trips</b>   |                |     |     |               |     |     |                |      |     |               |     |     |       |
| 1080 Stewart Dr                 |                |     |     |               | 6   |     |                |      |     |               | 8   |     | 14    |
| 1100 N. Mathilda Ave            |                |     |     |               |     |     |                |      |     |               |     |     |       |
| 1235 Bordeaux Dr                |                | 5   |     |               |     |     |                | 4    |     |               |     |     | 9     |
| 696 N. Mathilda Ave             |                | 4   | 11  | 12            |     |     |                | 4    |     |               |     |     | 31    |
| 725 S. Fair Oaks Ave            |                | 7   |     |               |     |     |                | 5    |     |               |     |     | 12    |
| 750 Lakeway Dr                  |                |     |     |               | 4   |     |                |      |     |               | 6   |     | 10    |
| 767 N. Mathilda Ave             | 1              | 9   | 2   | 3             |     |     |                | 14   |     |               |     | 2   | 31    |
| 830 E. El Camino Real           |                | 5   |     |               |     |     |                | 4    |     |               |     |     | 9     |
| 861 E. El Camino Real           |                | 6   |     |               |     |     |                | 5    |     |               |     |     | 11    |
| 1050 Kifer Rd                   |                |     |     |               |     |     |                |      |     |               |     |     |       |
| 1081 Innovation Way             |                | 2   |     |               |     |     |                | 135  |     |               |     |     | 137   |
| 1111 Lockheed Martin Way        | 2              | 12  |     | 1             |     |     |                | 41   |     |               |     | 6   | 62    |
| 1152 Bordeaux Dr                | 2              | 13  | 2   | 13            |     |     |                | 64   |     |               |     | 8   | 102   |
| 1184 N. Mathilda Ave            | 1              | 5   | 1   | 4             |     |     |                | 22   |     |               |     | 6   | 39    |
| 1212 Bordeaux Dr                | 1              | 1   |     | 3             |     |     |                | 17   |     |               |     | 4   | 26    |
| 1221 Crossman Ave               |                | 5   |     | 1             |     |     |                | 22   |     |               |     |     | 28    |
| 215 Moffett Park Dr             |                | 7   |     |               |     |     |                | 16   |     |               |     |     | 23    |
| 221 N. Mathilda Ave             |                | 45  |     |               |     | 3   |                | 7    |     |               |     |     | 55    |
| 280 Santa Ana Ct                |                |     |     |               | 1   |     |                |      |     |               | 7   |     | 8     |
| 495 E. Java Dr & 549 Baltic Way |                | 3   |     |               |     |     |                | 16   |     |               |     |     | 19    |
| 520 Almanor Ave                 |                | 14  |     | 1             |     |     |                | 92   |     |               |     |     | 107   |
| 589 W. Java Dr                  |                | 5   |     |               |     |     |                | 30   |     |               |     |     | 35    |
| 615 N. Mathilda Ave             |                | -22 | -1  | 4             |     |     |                | 99   |     |               |     |     | 80    |
| 684 W. Maude Ave                | 206            |     |     |               | 13  |     |                |      | 203 | 35            | 2   | 29  | 488   |
| 1120 Kifer Rd                   |                |     |     |               |     |     |                |      |     |               |     |     |       |
| 2502 Town Center Ln             |                | 47  |     |               |     |     |                | 61   | 3   | 5             |     |     | 116   |
| 675 Almanor Avenue              |                | 2   | 1   | 4             | 1   |     |                | 12   | 1   |               |     |     | 21    |
| 1111, 1139 Karlstad Dr          |                |     |     |               |     |     |                |      |     |               |     |     |       |
| 423 E. Maude Ave                |                |     |     |               |     |     |                |      |     |               |     |     |       |
| 460 Persian Dr                  |                |     |     |               |     |     |                |      |     |               |     |     |       |
| 520-550, 610 Weddell Dr         |                |     |     |               |     |     |                |      |     |               |     |     |       |
| 625 E. Taylor Ave               |                |     |     |               | 1   |     |                |      |     |               | -1  |     |       |
| 680-698 E. Taylor Ave           |                |     |     |               | 2   |     |                |      |     |               | -3  |     | -1    |
| 701-755 E. Evelyn Ave           |                | -54 |     |               |     |     |                | 17   |     |               |     |     | -37   |
| 915 De Guigne Dr                |                |     |     |               |     |     |                |      |     |               |     |     |       |
| City Place (Phase 1-3)          |                |     |     |               |     |     |                |      |     |               |     |     |       |
| 840 E. El Camino Real           |                |     |     |               |     |     |                |      |     |               |     |     |       |
| Irvine Company - Pathline Park  | 79             |     |     |               | 17  |     |                |      | 189 | 33            | 3   | 14  | 335   |
| <b>Total Approved Trips</b>     | 292            | 121 | 16  | 46            | 45  | 3   | 0              | 687  | 396 | 73            | 22  | 69  | 1770  |
| Background Conditions           | 629            | 765 | 158 | 322           | 415 | 152 | 47             | 2737 | 817 | 142           | 121 | 167 | 6472  |
| <b>Project Trips</b>            | 0              | 59  | 0   | 86            | 0   | 0   | 0              | 82   | 0   | 0             | 0   | 0   | 227   |
| Existing + Project              | 337            | 703 | 142 | 362           | 370 | 149 | 47             | 2132 | 421 | 69            | 99  | 98  | 4929  |
| Background + Project            | 629            | 824 | 158 | 408           | 415 | 152 | 47             | 2819 | 817 | 142           | 121 | 167 | 6699  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 7

Intersection Name: Mathilda Ave &amp; Indio Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 11/00/15

Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |     |                |      |     |               |    |    | Total |
|---------------------------------|----------------|------|----|---------------|----|-----|----------------|------|-----|---------------|----|----|-------|
|                                 | North Approach |      |    | East Approach |    |     | South Approach |      |     | West Approach |    |    |       |
|                                 | RT             | TH   | LT | RT            | TH | LT  | RT             | TH   | LT  | RT            | TH | LT |       |
| Existing Conditions             | 84             | 782  | 20 | 425           | 12 | 156 | 103            | 2050 | 97  | 197           | 1  | 10 | 3937  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1080 Stewart Dr                 |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1100 N. Mathilda Ave            |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1235 Bordeaux Dr                |                | 5    |    |               |    |     |                | 4    |     |               |    |    | 9     |
| 696 N. Mathilda Ave             |                | 4    |    |               |    |     |                | 4    |     |               |    |    | 8     |
| 725 S. Fair Oaks Ave            |                | 7    |    |               |    |     |                | 5    |     |               |    |    | 12    |
| 750 Lakeway Dr                  |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 767 N. Mathilda Ave             |                | 9    |    | 14            |    |     |                |      |     |               |    |    | 23    |
| 830 E. El Camino Real           |                | 5    |    |               |    |     |                | 4    |     |               |    |    | 9     |
| 861 E. El Camino Real           |                | 6    |    |               |    |     |                | 5    |     |               |    |    | 11    |
| 1050 Kifer Rd                   |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1081 Innovation Way             | 1              | 1    |    |               |    |     |                | 135  |     |               |    |    | 137   |
| 1111 Lockheed Martin Way        | 2              | 10   |    | 4             |    |     |                | 37   |     |               |    |    | 53    |
| 1152 Bordeaux Dr                |                | 11   | 2  | 8             |    |     |                | 55   |     |               |    |    | 76    |
| 1184 N. Mathilda Ave            |                | 5    |    | 9             |    |     |                | 13   |     |               |    |    | 27    |
| 1212 Bordeaux Dr                |                | 1    |    | 5             |    |     |                | 12   |     |               |    |    | 18    |
| 1221 Crossman Ave               | 3              | 2    |    |               |    |     |                | 22   |     |               |    |    | 27    |
| 215 Moffett Park Dr             | 2              | 5    |    | 2             |    |     |                | 14   |     |               |    |    | 23    |
| 221 N. Mathilda Ave             |                | 47   |    |               |    | 57  | 5              | 7    |     | 1             |    |    | 117   |
| 280 Santa Ana Ct                |                |      |    |               |    |     |                |      |     | 15            |    |    | 15    |
| 495 E. Java Dr & 549 Baltic Way |                | 3    |    |               |    |     |                | 16   |     |               |    |    | 19    |
| 520 Almanor Ave                 | 1              | 14   |    | 39            |    |     |                | 53   |     |               |    |    | 107   |
| 589 W. Java Dr                  | 2              | 3    |    | 12            |    |     |                | 18   |     |               |    |    | 35    |
| 615 N. Mathilda Ave             |                | -22  |    | 49            |    |     |                | 49   |     |               |    |    | 76    |
| 684 W. Maude Ave                |                | 35   |    | 64            |    |     |                | 139  |     |               |    |    | 238   |
| 1120 Kifer Rd                   |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 2502 Town Center Ln             |                | 52   |    |               |    |     |                | 64   | 13  |               |    |    | 129   |
| 675 Almanor Avenue              |                | 2    |    | 13            |    |     |                |      |     |               |    |    | 15    |
| 1111, 1139 Karlstad Dr          |                |      |    |               |    |     |                |      |     | 3             |    |    | 3     |
| 423 E. Maude Ave                |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 460 Persian Dr                  |                |      |    |               |    |     |                |      |     | 1             |    |    | 1     |
| 520-550, 610 Weddell Dr         |                |      |    |               |    |     |                |      |     | 7             |    |    | 7     |
| 625 E. Taylor Ave               |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 680-698 E. Taylor Ave           |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 701-755 E. Evelyn Ave           |                | -54  |    |               |    |     | 6              | 17   |     |               |    |    | -31   |
| 915 De Guigne Dr                |                |      |    |               |    |     |                |      |     |               |    |    |       |
| City Place (Phase 1-3)          |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 840 E. El Camino Real           |                |      |    |               |    |     |                |      |     |               |    |    |       |
| Irvine Company - Pathline Park  |                | 33   |    |               |    |     |                | 189  |     |               |    |    | 222   |
| <i>Total Approved Trips</i>     | 11             | 184  | 2  | 219           | 0  | 57  | 11             | 862  | 13  | 27            | 0  | 0  | 1386  |
| Background Conditions           | 95             | 966  | 22 | 644           | 12 | 213 | 114            | 2912 | 110 | 224           | 1  | 10 | 5323  |
| <b>Project Trips</b>            | 0              | 59   | 0  | 41            | 0  | 0   | 0              | 41   | 0   | 0             | 0  | 0  | 141   |
| Existing + Project              | 84             | 841  | 20 | 466           | 12 | 156 | 103            | 2091 | 97  | 197           | 1  | 10 | 4078  |
| Background + Project            | 95             | 1025 | 22 | 685           | 12 | 213 | 114            | 2953 | 110 | 224           | 1  | 10 | 5464  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 8  
 Intersection Name: Mathilda Ave & California Ave  
 Peak Hour: AM  
 Count Date: 11/00/15  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |      |     |               |     |    |                |      |     |               |    |     | Total |
|---------------------------------|----------------|------|-----|---------------|-----|----|----------------|------|-----|---------------|----|-----|-------|
|                                 | North Approach |      |     | East Approach |     |    | South Approach |      |     | West Approach |    |     |       |
|                                 | RT             | TH   | LT  | RT            | TH  | LT | RT             | TH   | LT  | RT            | TH | LT  |       |
| Existing Conditions             | 234            | 872  | 34  | 146           | 138 | 82 | 115            | 2009 | 139 | 109           | 5  | 56  | 3939  |
| <b>Approved Project Trips</b>   |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 1080 Stewart Dr                 |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 1100 N. Mathilda Ave            |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 1235 Bordeaux Dr                |                | 5    |     |               |     |    |                | 4    |     |               |    |     | 9     |
| 696 N. Mathilda Ave             |                | 4    |     |               |     |    |                | 4    |     |               |    |     | 8     |
| 725 S. Fair Oaks Ave            |                | 7    |     |               |     |    |                | 5    |     |               |    |     | 12    |
| 750 Lakeway Dr                  |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 767 N. Mathilda Ave             | 9              |      |     |               |     |    |                |      |     |               |    |     | 9     |
| 830 E. El Camino Real           |                | 5    |     |               |     |    |                | 4    |     |               |    |     | 9     |
| 861 E. El Camino Real           |                | 6    |     |               |     |    |                | 5    |     |               |    |     | 11    |
| 1050 Kifer Rd                   |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 1081 Innovation Way             |                | 1    |     | 60            |     |    |                | 75   |     |               |    |     | 136   |
| 1111 Lockheed Martin Way        | 1              | 9    |     | 6             |     |    |                | 31   |     |               |    |     | 47    |
| 1152 Bordeaux Dr                |                | 10   | 2   |               |     |    |                | 46   |     |               |    | 8   | 66    |
| 1184 N. Mathilda Ave            | 2              | 3    |     |               |     |    |                | 13   |     |               |    |     | 18    |
| 1212 Bordeaux Dr                | 1              |      |     | 3             |     |    |                | 9    |     |               |    |     | 13    |
| 1221 Crossman Ave               |                | 2    |     | 11            |     |    |                | 11   |     |               |    |     | 24    |
| 215 Moffett Park Dr             | 1              | 4    |     | 5             |     |    |                | 9    |     |               |    |     | 19    |
| 221 N. Mathilda Ave             | 106            |      |     |               |     |    |                |      | 36  | 7             |    | 11  | 160   |
| 280 Santa Ana Ct                |                | 15   |     |               |     |    | 1              |      |     |               |    |     | 16    |
| 495 E. Java Dr & 549 Baltic Way |                | 3    |     |               |     |    |                | 16   |     |               |    |     | 19    |
| 520 Almanor Ave                 | 6              | 7    |     |               |     |    |                | 48   |     |               |    | 5   | 66    |
| 589 W. Java Dr                  | 2              | 1    |     | 12            |     |    |                | 6    |     |               |    |     | 21    |
| 615 N. Mathilda Ave             |                | -10  | -12 | 3             |     |    |                | 47   |     |               |    |     | 28    |
| 684 W. Maude Ave                | 18             | 17   |     |               |     |    |                | 115  |     |               |    | 25  | 175   |
| 1120 Kifer Rd                   |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 2502 Town Center Ln             |                | 52   |     |               |     |    |                | 77   |     | 8             |    |     | 137   |
| 675 Almanor Avenue              | 2              |      |     |               |     |    |                |      |     |               |    |     | 2     |
| 1111, 1139 Karlstad Dr          |                | 3    |     |               |     |    | -2             |      |     |               |    |     | 1     |
| 423 E. Maude Ave                |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 460 Persian Dr                  |                | 1    |     |               |     |    | -1             |      |     |               |    |     |       |
| 520-550, 610 Weddell Dr         |                | 7    |     |               |     |    | -2             |      |     |               |    |     | 5     |
| 625 E. Taylor Ave               |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 680-698 E. Taylor Ave           |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 701-755 E. Evelyn Ave           |                | -54  |     |               |     |    |                | 23   |     | -18           |    |     | -49   |
| 915 De Guigne Dr                |                |      |     |               |     |    |                |      |     |               |    |     |       |
| City Place (Phase 1-3)          |                |      |     |               |     |    |                |      |     |               |    |     |       |
| 840 E. El Camino Real           |                |      |     |               |     |    |                |      |     |               |    |     |       |
| Irvine Company - Pathline Park  |                | 33   |     |               |     |    |                | 189  |     |               |    |     | 222   |
| <i>Total Approved Trips</i>     | 148            | 131  | -10 | 100           | 0   | 0  | -4             | 737  | 36  | -3            | 0  | 49  | 1184  |
| Background Conditions           | 382            | 1003 | 24  | 246           | 138 | 82 | 111            | 2746 | 175 | 106           | 5  | 105 | 5123  |
| <b>Project Trips</b>            | 24             | 36   | 0   | 0             | 0   | 0  | 0              | 41   | 0   | 0             | 0  | 0   | 101   |
| Existing + Project              | 258            | 908  | 34  | 146           | 138 | 82 | 115            | 2050 | 139 | 109           | 5  | 56  | 4040  |
| Background + Project            | 406            | 1039 | 24  | 246           | 138 | 82 | 111            | 2787 | 175 | 106           | 5  | 105 | 5224  |

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 9  
 Intersection Name: San Aleso Ave & Ahwanee Ave  
 Peak Hour: AM  
 Count Date: 05/16/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |    |    |               |     |    |                |    |     |               |    |    | Total |
|---------------------------------|----------------|----|----|---------------|-----|----|----------------|----|-----|---------------|----|----|-------|
|                                 | North Approach |    |    | East Approach |     |    | South Approach |    |     | West Approach |    |    |       |
|                                 | RT             | TH | LT | RT            | TH  | LT | RT             | TH | LT  | RT            | TH | LT |       |
| Existing Conditions             | 0              | 0  | 0  | 0             | 293 | 47 | 47             | 0  | 15  | 6             | 69 | 0  | 477   |
| <b>Approved Project Trips</b>   |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1080 Stewart Dr                 |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1100 N. Mathilda Ave            |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1235 Bordeaux Dr                |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 696 N. Mathilda Ave             |                |    |    |               |     | 12 |                | 11 |     |               |    |    | 23    |
| 725 S. Fair Oaks Ave            |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 750 Lakeway Dr                  |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 767 N. Mathilda Ave             |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 830 E. El Camino Real           |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 861 E. El Camino Real           |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1050 Kifer Rd                   |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1081 Innovation Way             |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1111 Lockheed Martin Way        |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1152 Bordeaux Dr                |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1184 N. Mathilda Ave            |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1212 Bordeaux Dr                |                |    |    |               |     | 1  |                |    |     |               |    |    | 1     |
| 1221 Crossman Ave               |                |    |    |               |     | 2  |                |    |     |               |    |    | 2     |
| 215 Moffett Park Dr             |                |    |    |               |     | 3  |                |    |     |               | 1  |    | 4     |
| 221 N. Mathilda Ave             |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 280 Santa Ana Ct                |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 495 E. Java Dr & 549 Baltic Way |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 520 Almanor Ave                 |                |    |    |               |     | 2  |                |    |     |               |    |    | 2     |
| 589 W. Java Dr                  |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 615 N. Mathilda Ave             |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 684 W. Maude Ave                |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1120 Kifer Rd                   |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 2502 Town Center Ln             |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 675 Almanor Avenue              |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 1111, 1139 Karlstad Dr          |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 423 E. Maude Ave                |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 460 Persian Dr                  |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 520-550, 610 Weddell Dr         |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 625 E. Taylor Ave               |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 680-698 E. Taylor Ave           |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 915 De Guigne Dr                |                |    |    |               |     |    |                |    |     |               |    |    |       |
| City Place (Phase 1-3)          |                |    |    |               |     |    |                |    |     |               |    |    |       |
| 840 E. El Camino Real           |                |    |    |               |     |    |                |    |     |               |    |    |       |
| Irvine Company - Pathline Park  |                |    |    |               |     |    |                |    |     |               |    |    |       |
| <i>Total Approved Trips</i>     | 0              | 0  | 0  | 0             | 8   | 12 | 11             | 0  | 0   | 0             | 1  | 0  | 32    |
| Background Conditions           | 0              | 0  | 0  | 0             | 301 | 59 | 58             | 0  | 15  | 6             | 70 | 0  | 509   |
| <b>Project Trips</b>            | 0              | 0  | 0  | 0             | 0   | 0  | 92             | 0  | 145 | 0             | 0  | 0  | 237   |
| Existing + Project              | 0              | 0  | 0  | 0             | 293 | 47 | 139            | 0  | 160 | 6             | 69 | 0  | 714   |
| Background + Project            | 0              | 0  | 0  | 0             | 301 | 59 | 150            | 0  | 160 | 6             | 70 | 0  | 746   |

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 10  
 Intersection Name: Borregas Ave & Ahwanee Ave  
 Peak Hour: AM  
 Count Date: 05/16/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |    |    |               |     |    |                |    |     |               |     |    | Total |
|---------------------------------|----------------|----|----|---------------|-----|----|----------------|----|-----|---------------|-----|----|-------|
|                                 | North Approach |    |    | East Approach |     |    | South Approach |    |     | West Approach |     |    |       |
|                                 | RT             | TH | LT | RT            | TH  | LT | RT             | TH | LT  | RT            | TH  | LT |       |
| Existing Conditions             | 0              | 0  | 0  | 0             | 167 | 41 | 52             | 0  | 165 | 47            | 69  | 0  | 541   |
| <b>Approved Project Trips</b>   |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1080 Stewart Dr                 |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1100 N. Mathilda Ave            |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1235 Bordeaux Dr                |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 696 N. Mathilda Ave             |                |    |    |               | 12  |    |                |    |     |               | 11  |    | 23    |
| 725 S. Fair Oaks Ave            |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 750 Lakeway Dr                  |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 767 N. Mathilda Ave             |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 830 E. El Camino Real           |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 861 E. El Camino Real           |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1050 Kifer Rd                   |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1081 Innovation Way             |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1111 Lockheed Martin Way        |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1152 Bordeaux Dr                |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1184 N. Mathilda Ave            |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1212 Bordeaux Dr                |                |    |    |               |     |    |                |    | 1   |               |     |    | 1     |
| 1221 Crossman Ave               |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 215 Moffett Park Dr             |                |    |    |               |     |    |                |    | 3   | 1             |     |    | 4     |
| 221 N. Mathilda Ave             |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 280 Santa Ana Ct                |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 495 E. Java Dr & 549 Baltic Way |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 520 Almanor Ave                 |                |    |    |               | 2   |    |                |    |     |               |     |    | 2     |
| 589 W. Java Dr                  |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 615 N. Mathilda Ave             |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 684 W. Maude Ave                |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1120 Kifer Rd                   |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 2502 Town Center Ln             |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 675 Almanor Avenue              |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 1111, 1139 Karlstad Dr          |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 423 E. Maude Ave                |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 460 Persian Dr                  |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 520-550, 610 Weddell Dr         |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 625 E. Taylor Ave               |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 680-698 E. Taylor Ave           |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 701-755 E. Evelyn Ave           |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 915 De Guigne Dr                |                |    |    |               |     |    |                |    |     |               |     |    |       |
| City Place (Phase 1-3)          |                |    |    |               |     |    |                |    |     |               |     |    |       |
| 840 E. El Camino Real           |                |    |    |               |     |    |                |    |     |               |     |    |       |
| Irvine Company - Pathline Park  |                |    |    |               |     |    |                |    |     |               |     |    |       |
| <i>Total Approved Trips</i>     | 0              | 0  | 0  | 0             | 14  | 0  | 0              | 0  | 4   | 1             | 11  | 0  | 30    |
| Background Conditions           | 0              | 0  | 0  | 0             | 181 | 41 | 52             | 0  | 169 | 48            | 80  | 0  | 571   |
| <b>Project Trips</b>            | 0              | 0  | 0  | 0             | 0   | 0  | 0              | 0  | 0   | 17            | 75  | 0  | 92    |
| Existing + Project              | 0              | 0  | 0  | 0             | 167 | 41 | 52             | 0  | 165 | 64            | 144 | 0  | 633   |
| Background + Project            | 0              | 0  | 0  | 0             | 181 | 41 | 52             | 0  | 169 | 65            | 155 | 0  | 663   |

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 11  
 Intersection Name: Borregas Ave & Duane Ave  
 Peak Hour: AM  
 Count Date: 05/16/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |     |    |               |    |    |                |     |    |               |    |    | Total |
|---------------------------------|----------------|-----|----|---------------|----|----|----------------|-----|----|---------------|----|----|-------|
|                                 | North Approach |     |    | East Approach |    |    | South Approach |     |    | West Approach |    |    |       |
|                                 | RT             | TH  | LT | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT |       |
| Existing Conditions             | 2              | 171 | 5  | 31            | 4  | 99 | 11             | 105 | 6  | 12            | 6  | 7  | 459   |
| <b>Approved Project Trips</b>   |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1080 Stewart Dr                 |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1100 N. Mathilda Ave            |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1235 Bordeaux Dr                |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 696 N. Mathilda Ave             |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 725 S. Fair Oaks Ave            |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 750 Lakeway Dr                  |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 767 N. Mathilda Ave             |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 830 E. El Camino Real           |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 861 E. El Camino Real           |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1050 Kifer Rd                   |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1081 Innovation Way             |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1111 Lockheed Martin Way        |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1152 Bordeaux Dr                |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1184 N. Mathilda Ave            |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1212 Bordeaux Dr                |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1221 Crossman Ave               |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 215 Moffett Park Dr             |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 221 N. Mathilda Ave             |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 280 Santa Ana Ct                |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 495 E. Java Dr & 549 Baltic Way |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 520 Almanor Ave                 |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 589 W. Java Dr                  |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 615 N. Mathilda Ave             |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 684 W. Maude Ave                |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1120 Kifer Rd                   |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 2502 Town Center Ln             |                | 3   |    |               |    |    |                | 2   |    |               |    |    | 5     |
| 675 Almanor Avenue              |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 1111, 1139 Karlstad Dr          |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 423 E. Maude Ave                |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 460 Persian Dr                  |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 520-550, 610 Weddell Dr         |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 625 E. Taylor Ave               |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 680-698 E. Taylor Ave           |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 915 De Guigne Dr                |                |     |    |               |    |    |                |     |    |               |    |    |       |
| City Place (Phase 1-3)          |                |     |    |               |    |    |                |     |    |               |    |    |       |
| 840 E. El Camino Real           |                |     |    |               |    |    |                |     |    |               |    |    |       |
| Irvine Company - Pathline Park  |                |     |    |               |    |    |                |     |    |               |    |    |       |
| <i>Total Approved Trips</i>     | 0              | 3   | 0  | 0             | 0  | 0  | 0              | 2   | 0  | 0             | 0  | 0  | 5     |
| Background Conditions           | 2              | 174 | 5  | 31            | 4  | 99 | 11             | 107 | 6  | 12            | 6  | 7  | 464   |
| <b>Project Trips</b>            | 0              | 7   | 10 | 0             | 0  | 0  | 0              | 0   | 0  | 0             | 0  | 0  | 17    |
| Existing + Project              | 2              | 178 | 15 | 31            | 4  | 99 | 11             | 105 | 6  | 12            | 6  | 7  | 476   |
| Background + Project            | 2              | 181 | 15 | 31            | 4  | 99 | 11             | 107 | 6  | 12            | 6  | 7  | 481   |



Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 12  
 Intersection Name: Sunnyvale Ave/Borre & Maude Ave  
 Peak Hour: AM  
 Count Date: 05/16/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |    |     |               |     |    |                |    |     |               |     |    | Total |
|---------------------------------|----------------|----|-----|---------------|-----|----|----------------|----|-----|---------------|-----|----|-------|
|                                 | North Approach |    |     | East Approach |     |    | South Approach |    |     | West Approach |     |    |       |
|                                 | RT             | TH | LT  | RT            | TH  | LT | RT             | TH | LT  | RT            | TH  | LT |       |
| Existing Conditions             | 227            | 0  | 118 | 0             | 387 | 54 | 166            | 0  | 178 | 0             | 224 | 65 | 1419  |
| <b>Approved Project Trips</b>   |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 1080 Stewart Dr                 |                |    |     |               | 6   |    |                |    |     |               | 8   |    | 14    |
| 1100 N. Mathilda Ave            |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 1235 Bordeaux Dr                |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 696 N. Mathilda Ave             |                |    |     |               | 12  |    |                |    |     |               | 11  |    | 23    |
| 725 S. Fair Oaks Ave            |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 750 Lakeway Dr                  |                |    |     |               | 4   |    |                |    |     |               | 6   |    | 10    |
| 767 N. Mathilda Ave             |                |    |     |               | 3   |    |                |    |     |               | 2   |    | 5     |
| 830 E. El Camino Real           |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 861 E. El Camino Real           |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 1050 Kifer Rd                   |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 1081 Innovation Way             |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 1111 Lockheed Martin Way        |                |    |     |               |     |    |                |    |     | 1             |     |    | 1     |
| 1152 Bordeaux Dr                | 13             |    |     |               |     |    |                |    |     |               |     | 2  | 15    |
| 1184 N. Mathilda Ave            |                |    |     |               | 4   |    |                |    |     |               | 1   |    | 5     |
| 1212 Bordeaux Dr                |                |    |     |               | 3   |    |                |    |     |               |     |    | 3     |
| 1221 Crossman Ave               |                |    | 2   |               |     |    | 2              |    | 1   |               |     |    | 5     |
| 215 Moffett Park Dr             |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 221 N. Mathilda Ave             |                |    |     |               | 3   |    |                |    |     |               |     |    | 3     |
| 280 Santa Ana Ct                |                |    |     |               | 1   |    |                |    |     |               | 7   |    | 8     |
| 495 E. Java Dr & 549 Baltic Way |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 520 Almanor Ave                 |                |    |     |               | 1   |    |                |    |     |               |     |    | 1     |
| 589 W. Java Dr                  |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 615 N. Mathilda Ave             |                |    |     |               | 4   |    |                |    |     |               | -1  |    | 3     |
| 684 W. Maude Ave                |                |    |     |               | 13  |    |                |    |     |               | 2   |    | 15    |
| 1120 Kifer Rd                   |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 2502 Town Center Ln             |                |    | 3   |               | 2   |    |                |    |     |               |     |    | 5     |
| 675 Almanor Avenue              |                |    |     |               | 5   |    |                |    |     |               | 1   |    | 6     |
| 1111, 1139 Karlstad Dr          |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 423 E. Maude Ave                |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 460 Persian Dr                  |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 520-550, 610 Weddell Dr         |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 625 E. Taylor Ave               |                |    |     |               | 1   |    |                |    |     |               | -1  |    | -1    |
| 680-698 E. Taylor Ave           |                |    |     |               | 2   |    |                |    |     |               | -3  |    | -1    |
| 701-755 E. Evelyn Ave           |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 915 De Guigne Dr                |                |    |     |               |     |    |                |    |     |               |     |    |       |
| City Place (Phase 1-3)          |                |    |     |               |     |    |                |    |     |               |     |    |       |
| 840 E. El Camino Real           |                |    |     |               |     |    |                |    |     |               |     |    |       |
| Irvine Company - Pathline Park  |                |    |     |               | 17  |    |                |    |     |               | 3   |    | 20    |
| <i>Total Approved Trips</i>     | 13             | 0  | 5   | 0             | 81  | 0  | 2              | 0  | 2   | 0             | 36  | 2  | 141   |
| Background Conditions           | 240            | 0  | 123 | 0             | 468 | 54 | 168            | 0  | 180 | 0             | 260 | 67 | 1560  |
| <b>Project Trips</b>            | 0              | 0  | 7   | 0             | 78  | 0  | 0              | 0  | 8   | 0             | 0   | 0  | 93    |
| Existing + Project              | 227            | 0  | 125 | 0             | 465 | 54 | 166            | 0  | 186 | 0             | 224 | 65 | 1512  |
| Background + Project            | 240            | 0  | 130 | 0             | 546 | 54 | 168            | 0  | 188 | 0             | 260 | 67 | 1653  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 13

Intersection Name: Morse Ave &amp; Ahwanee Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 05/16/17

Scenario: Summit School TIA

| Scenario:                       | Movements      |    |    |               |     |     |                |    |    |               |     |    | Total |
|---------------------------------|----------------|----|----|---------------|-----|-----|----------------|----|----|---------------|-----|----|-------|
|                                 | North Approach |    |    | East Approach |     |     | South Approach |    |    | West Approach |     |    |       |
|                                 | RT             | TH | LT | RT            | TH  | LT  | RT             | TH | LT | RT            | TH  | LT |       |
| Existing Conditions             | 0              | 0  | 0  | 0             | 117 | 309 | 185            | 0  | 85 | 60            | 76  | 0  | 832   |
| <b>Approved Project Trips</b>   |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1080 Stewart Dr                 |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1100 N. Mathilda Ave            |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1235 Bordeaux Dr                |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 696 N. Mathilda Ave             |                |    |    |               | 12  |     |                |    |    |               | 11  |    | 23    |
| 725 S. Fair Oaks Ave            |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 750 Lakeway Dr                  |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 767 N. Mathilda Ave             |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 830 E. El Camino Real           |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 861 E. El Camino Real           |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1050 Kifer Rd                   |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1081 Innovation Way             |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1111 Lockheed Martin Way        |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1152 Bordeaux Dr                |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1184 N. Mathilda Ave            |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1212 Bordeaux Dr                |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1221 Crossman Ave               |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 215 Moffett Park Dr             |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 221 N. Mathilda Ave             |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 280 Santa Ana Ct                |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 495 E. Java Dr & 549 Baltic Way |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 520 Almanor Ave                 |                |    |    |               | 2   |     |                |    |    |               |     |    | 2     |
| 589 W. Java Dr                  |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 615 N. Mathilda Ave             |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 684 W. Maude Ave                |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1120 Kifer Rd                   |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 2502 Town Center Ln             |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 675 Almanor Avenue              |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 1111, 1139 Karlstad Dr          |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 423 E. Maude Ave                |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 460 Persian Dr                  |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 520-550, 610 Weddell Dr         |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 625 E. Taylor Ave               |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 680-698 E. Taylor Ave           |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 701-755 E. Evelyn Ave           |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 915 De Guigne Dr                |                |    |    |               |     |     |                |    |    |               |     |    |       |
| City Place (Phase 1-3)          |                |    |    |               |     |     |                |    |    |               |     |    |       |
| 840 E. El Camino Real           |                |    |    |               |     |     |                |    |    |               |     |    |       |
| Irvine Company - Pathline Park  |                |    |    |               |     |     |                |    |    |               |     |    |       |
| <i>Total Approved Trips</i>     | 0              | 0  | 0  | 0             | 14  | 0   | 0              | 0  | 0  | 0             | 11  | 0  | 25    |
| Background Conditions           | 0              | 0  | 0  | 0             | 131 | 309 | 185            | 0  | 85 | 60            | 87  | 0  | 857   |
| <b>Project Trips</b>            | 0              | 0  | 0  | 0             | 0   | 0   | 0              | 0  | 0  | 2             | 73  | 0  | 75    |
| Existing + Project              | 0              | 0  | 0  | 0             | 117 | 309 | 185            | 0  | 85 | 62            | 149 | 0  | 907   |
| Background + Project            | 0              | 0  | 0  | 0             | 131 | 309 | 185            | 0  | 85 | 62            | 160 | 0  | 932   |

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 14  
 Intersection Name: Morse Ave & Duane Ave  
 Peak Hour: AM  
 Count Date: 05/16/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |     |     |               |    |    |                |     |    |               |    |    | Total |
|---------------------------------|----------------|-----|-----|---------------|----|----|----------------|-----|----|---------------|----|----|-------|
|                                 | North Approach |     |     | East Approach |    |    | South Approach |     |    | West Approach |    |    |       |
|                                 | RT             | TH  | LT  | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT |       |
| Existing Conditions             | 32             | 156 | 120 | 60            | 93 | 28 | 19             | 204 | 6  | 3             | 55 | 14 | 790   |
| <b>Approved Project Trips</b>   |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1080 Stewart Dr                 |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1100 N. Mathilda Ave            |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1235 Bordeaux Dr                |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 696 N. Mathilda Ave             |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 725 S. Fair Oaks Ave            |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 750 Lakeway Dr                  |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 767 N. Mathilda Ave             |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 830 E. El Camino Real           |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 861 E. El Camino Real           |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1050 Kifer Rd                   |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1081 Innovation Way             |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1111 Lockheed Martin Way        |                |     |     |               | 2  |    |                |     |    |               | 7  |    | 9     |
| 1152 Bordeaux Dr                |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1184 N. Mathilda Ave            |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1212 Bordeaux Dr                |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1221 Crossman Ave               |                |     |     |               | 1  |    |                |     |    |               | 3  |    | 4     |
| 215 Moffett Park Dr             |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 221 N. Mathilda Ave             |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 280 Santa Ana Ct                |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 495 E. Java Dr & 549 Baltic Way |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 520 Almanor Ave                 |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 589 W. Java Dr                  |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 615 N. Mathilda Ave             |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 684 W. Maude Ave                |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1120 Kifer Rd                   |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 2502 Town Center Ln             |                | 3   |     |               |    |    |                | 2   |    |               |    |    | 5     |
| 675 Almanor Avenue              |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 1111, 1139 Karlstad Dr          |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 423 E. Maude Ave                |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 460 Persian Dr                  |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 520-550, 610 Weddell Dr         |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 625 E. Taylor Ave               |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 680-698 E. Taylor Ave           |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 915 De Guigne Dr                |                |     |     |               |    |    |                |     |    |               |    |    |       |
| City Place (Phase 1-3)          |                |     |     |               |    |    |                |     |    |               |    |    |       |
| 840 E. El Camino Real           |                |     |     |               |    |    |                |     |    |               |    |    |       |
| Irvine Company - Pathline Park  |                |     |     |               |    |    |                |     |    |               |    |    |       |
| <i>Total Approved Trips</i>     | 0              | 3   | 0   | 0             | 3  | 0  | 0              | 2   | 0  | 0             | 10 | 0  | 18    |
| Background Conditions           | 32             | 159 | 120 | 60            | 96 | 28 | 19             | 206 | 6  | 3             | 65 | 14 | 808   |
| <b>Project Trips</b>            | 0              | 2   | 0   | 0             | 0  | 3  | 0              | 0   | 0  | 0             | 10 | 0  | 15    |
| Existing + Project              | 32             | 158 | 120 | 60            | 93 | 31 | 19             | 204 | 6  | 3             | 65 | 14 | 805   |
| Background + Project            | 32             | 161 | 120 | 60            | 96 | 31 | 19             | 206 | 6  | 3             | 75 | 14 | 823   |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 15

Intersection Name: Morse Ave &amp; Maude Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 05/16/17

Scenario: Summit School TIA

| Scenario:                       | Movements      |    |    |               |     |    |                |    |    |               |     |     | Total |
|---------------------------------|----------------|----|----|---------------|-----|----|----------------|----|----|---------------|-----|-----|-------|
|                                 | North Approach |    |    | East Approach |     |    | South Approach |    |    | West Approach |     |     |       |
|                                 | RT             | TH | LT | RT            | TH  | LT | RT             | TH | LT | RT            | TH  | LT  |       |
| Existing Conditions             | 132            | 19 | 33 | 112           | 349 | 4  | 16             | 32 | 9  | 4             | 227 | 99  | 1036  |
| <b>Approved Project Trips</b>   |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1080 Stewart Dr                 |                |    |    |               | 6   |    |                |    |    |               | 8   |     | 14    |
| 1100 N. Mathilda Ave            |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1235 Bordeaux Dr                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 696 N. Mathilda Ave             |                |    |    |               | 12  |    |                |    |    |               | 11  |     | 23    |
| 725 S. Fair Oaks Ave            |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 750 Lakeway Dr                  |                |    |    |               | 4   |    |                |    |    |               | 6   |     | 10    |
| 767 N. Mathilda Ave             |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 830 E. El Camino Real           |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 861 E. El Camino Real           |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1050 Kifer Rd                   |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1081 Innovation Way             |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1111 Lockheed Martin Way        |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1152 Bordeaux Dr                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1184 N. Mathilda Ave            |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1212 Bordeaux Dr                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1221 Crossman Ave               |                |    |    |               | 1   |    |                |    |    |               | 4   |     | 5     |
| 215 Moffett Park Dr             |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 221 N. Mathilda Ave             |                |    |    |               | 3   |    |                |    |    |               |     |     | 3     |
| 280 Santa Ana Ct                |                |    |    |               | 1   |    |                |    |    |               | 7   |     | 8     |
| 495 E. Java Dr & 549 Baltic Way |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 520 Almanor Ave                 |                |    |    |               | 1   |    |                |    |    |               |     |     | 1     |
| 589 W. Java Dr                  |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 615 N. Mathilda Ave             |                |    |    |               | 4   |    |                |    |    |               | -1  |     | 3     |
| 684 W. Maude Ave                |                |    |    |               | 13  |    |                |    |    |               | 2   |     | 15    |
| 1120 Kifer Rd                   |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 2502 Town Center Ln             | 3              |    |    |               |     |    |                |    |    |               |     | 2   | 5     |
| 675 Almanor Avenue              |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1111, 1139 Karlstad Dr          |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 423 E. Maude Ave                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 460 Persian Dr                  |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 520-550, 610 Weddell Dr         |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 625 E. Taylor Ave               |                |    |    |               | 1   |    |                |    |    |               | -1  |     | -1    |
| 680-698 E. Taylor Ave           |                |    |    |               | 2   |    |                |    |    |               | -3  |     | -1    |
| 701-755 E. Evelyn Ave           |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 915 De Guigne Dr                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| City Place (Phase 1-3)          |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 840 E. El Camino Real           |                |    |    |               |     |    |                |    |    |               |     |     |       |
| Irvine Company - Pathline Park  |                |    |    |               | 17  |    |                |    |    |               | 3   |     | 20    |
| <i>Total Approved Trips</i>     | 3              | 0  | 0  | 0             | 65  | 0  | 0              | 0  | 0  | 0             | 36  | 2   | 106   |
| Background Conditions           | 135            | 19 | 33 | 112           | 414 | 4  | 16             | 32 | 9  | 4             | 263 | 101 | 1142  |
| <b>Project Trips</b>            | 5              | 0  | 0  | 0             | 73  | 0  | 0              | 0  | 0  | 0             | 0   | 0   | 78    |
| Existing + Project              | 137            | 19 | 33 | 112           | 422 | 4  | 16             | 32 | 9  | 4             | 227 | 99  | 1114  |
| Background + Project            | 140            | 19 | 33 | 112           | 487 | 4  | 16             | 32 | 9  | 4             | 263 | 101 | 1220  |

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 16  
 Intersection Name: Fair Oaks Ave & Weddell Dr  
 Peak Hour: AM  
 Count Date: 04/04/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |     |    |               |    |     |                |      |     |               |    |    | Total |
|---------------------------------|----------------|-----|----|---------------|----|-----|----------------|------|-----|---------------|----|----|-------|
|                                 | North Approach |     |    | East Approach |    |     | South Approach |      |     | West Approach |    |    |       |
|                                 | RT             | TH  | LT | RT            | TH | LT  | RT             | TH   | LT  | RT            | TH | LT |       |
| Existing Conditions             | 47             | 724 | 19 | 20            | 7  | 83  | 31             | 742  | 268 | 410           | 0  | 37 | 2388  |
| <b>Approved Project Trips</b>   |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1080 Stewart Dr                 |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1100 N. Mathilda Ave            |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1235 Bordeaux Dr                |                | 14  |    |               |    |     |                | 9    |     |               |    |    | 23    |
| 696 N. Mathilda Ave             |                | 12  |    |               |    |     |                | 11   |     |               |    |    | 23    |
| 725 S. Fair Oaks Ave            |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 750 Lakeway Dr                  |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 767 N. Mathilda Ave             |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 830 E. El Camino Real           |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 861 E. El Camino Real           |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1050 Kifer Rd                   |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1081 Innovation Way             |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1111 Lockheed Martin Way        |                | 6   |    |               |    |     |                | 21   |     |               |    |    | 27    |
| 1152 Bordeaux Dr                |                | 4   |    |               |    |     |                | 21   |     |               |    |    | 25    |
| 1184 N. Mathilda Ave            |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1212 Bordeaux Dr                |                | 1   |    |               |    |     |                | 7    |     |               |    |    | 8     |
| 1221 Crossman Ave               |                | 21  |    | 1             |    |     |                | 100  |     |               | 1  |    | 123   |
| 215 Moffett Park Dr             |                | 2   |    |               |    |     |                | 5    |     |               |    |    | 7     |
| 221 N. Mathilda Ave             |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 280 Santa Ana Ct                |                | 7   |    |               |    |     |                | 1    |     |               |    |    | 8     |
| 495 E. Java Dr & 549 Baltic Way |                | 19  |    |               |    |     |                | 96   |     |               |    |    | 115   |
| 520 Almanor Ave                 |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 589 W. Java Dr                  |                | 7   |    |               |    |     |                | 34   |     |               |    |    | 41    |
| 615 N. Mathilda Ave             |                | 3   |    |               |    |     |                |      |     |               |    |    | 3     |
| 684 W. Maude Ave                |                | 7   |    |               |    |     |                | 1    |     |               |    |    | 8     |
| 1120 Kifer Rd                   |                | 6   |    |               |    |     |                | 20   |     |               |    |    | 26    |
| 2502 Town Center Ln             |                | 10  |    |               |    |     |                | 7    |     |               |    |    | 17    |
| 675 Almanor Avenue              |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 1111, 1139 Karlstad Dr          |                | 74  |    |               |    |     |                | -49  |     |               |    |    | 25    |
| 423 E. Maude Ave                |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 460 Persian Dr                  |                | 17  |    |               |    |     |                | -20  |     |               |    |    | -3    |
| 520-550, 610 Weddell Dr         | -11            |     | -5 | 18            |    | 56  | -18            |      | -43 | 131           |    | 33 | 161   |
| 625 E. Taylor Ave               |                | -2  |    |               |    |     |                | 2    |     |               |    |    |       |
| 680-698 E. Taylor Ave           |                | -7  |    |               |    |     |                | 5    |     |               |    |    | -2    |
| 701-755 E. Evelyn Ave           |                |     |    |               |    |     |                |      |     |               |    |    |       |
| 915 De Guigne Dr                |                | -15 |    |               |    |     |                | 13   |     |               |    |    | -2    |
| City Place (Phase 1-3)          | 2              | 1   | 9  | 9             | 3  | 9   | 9              | 15   | 5   | 2             | 9  | 4  | 77    |
| 840 E. El Camino Real           |                |     |    |               |    |     |                |      |     |               |    |    |       |
| Irvine Company - Pathline Park  |                | 13  |    |               |    |     |                | 2    |     |               |    |    | 15    |
| <i>Total Approved Trips</i>     | -9             | 200 | 4  | 28            | 3  | 65  | -9             | 301  | -38 | 133           | 9  | 38 | 725   |
| Background Conditions           | 38             | 924 | 23 | 48            | 10 | 148 | 22             | 1043 | 230 | 543           | 9  | 75 | 3113  |
| <b>Project Trips</b>            | 0              | 16  | 0  | 0             | 0  | 0   | 0              | 14   | 4   | 0             | 0  | 0  | 34    |
| Existing + Project              | 47             | 740 | 19 | 20            | 7  | 83  | 31             | 756  | 272 | 410           | 0  | 37 | 2422  |
| Background + Project            | 38             | 940 | 23 | 48            | 10 | 148 | 22             | 1057 | 234 | 543           | 9  | 75 | 3147  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 17

Intersection Name: Fair Oaks Ave &amp; US 101 NB Ramps

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 04/04/17

Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |     |                |     |     |               |    |    | Total |
|---------------------------------|----------------|------|----|---------------|----|-----|----------------|-----|-----|---------------|----|----|-------|
|                                 | North Approach |      |    | East Approach |    |     | South Approach |     |     | West Approach |    |    |       |
|                                 | RT             | TH   | LT | RT            | TH | LT  | RT             | TH  | LT  | RT            | TH | LT |       |
| Existing Conditions             | 494            | 729  | 0  | 269           | 0  | 256 | 0              | 785 | 539 | 0             | 0  | 0  | 3072  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |     |                |     |     |               |    |    |       |
| 1080 Stewart Dr                 |                |      |    |               |    |     |                |     |     |               |    |    |       |
| 1100 N. Mathilda Ave            |                |      |    |               |    |     |                |     |     |               |    |    |       |
| 1235 Bordeaux Dr                |                | 14   |    | 9             |    |     |                |     |     |               |    |    | 23    |
| 696 N. Mathilda Ave             |                | 12   |    |               |    |     |                | 11  |     |               |    |    | 23    |
| 725 S. Fair Oaks Ave            |                |      |    |               |    | 5   |                |     | 4   |               |    |    | 9     |
| 750 Lakeway Dr                  |                |      |    |               |    |     |                |     |     |               |    |    |       |
| 767 N. Mathilda Ave             |                |      |    |               |    |     |                |     |     |               |    |    |       |
| 830 E. El Camino Real           |                |      |    |               |    | 4   |                |     | 3   |               |    |    | 7     |
| 861 E. El Camino Real           |                |      |    |               |    | 5   |                |     | 3   |               |    |    | 8     |
| 1050 Kifer Rd                   |                |      |    |               |    |     |                |     | 11  |               |    |    | 11    |
| 1081 Innovation Way             |                |      |    |               |    |     |                |     | 53  |               |    |    | 53    |
| 1111 Lockheed Martin Way        |                | 6    |    |               |    |     |                | 21  |     |               |    |    | 27    |
| 1152 Bordeaux Dr                |                | 4    |    |               |    |     |                | 21  |     |               |    |    | 25    |
| 1184 N. Mathilda Ave            |                |      |    |               |    |     |                |     |     |               |    |    |       |
| 1212 Bordeaux Dr                |                | 1    |    |               |    |     |                | 7   |     |               |    |    | 8     |
| 1221 Crossman Ave               |                | 21   |    | 67            |    |     |                | 33  |     |               |    |    | 121   |
| 215 Moffett Park Dr             |                | 2    |    |               |    |     |                | 5   |     |               |    |    | 7     |
| 221 N. Mathilda Ave             |                |      |    |               |    | 2   |                |     |     |               |    |    | 2     |
| 280 Santa Ana Ct                |                | 7    |    |               |    | 5   |                | 1   | 6   |               |    |    | 19    |
| 495 E. Java Dr & 549 Baltic Way |                | 19   |    | 60            |    |     |                | 36  |     |               |    |    | 115   |
| 520 Almanor Ave                 |                |      |    |               |    |     |                |     |     |               |    |    |       |
| 589 W. Java Dr                  |                | 7    |    | 17            |    |     |                | 16  |     |               |    |    | 40    |
| 615 N. Mathilda Ave             |                | 3    |    |               |    |     |                |     |     |               |    |    | 3     |
| 684 W. Maude Ave                |                | 7    |    |               |    |     |                | 1   |     |               |    |    | 8     |
| 1120 Kifer Rd                   |                | 6    |    |               |    |     |                | 20  | 12  |               |    |    | 38    |
| 2502 Town Center Ln             |                | 10   |    |               |    | 8   |                | 7   |     |               |    |    | 25    |
| 675 Almanor Avenue              |                |      |    |               |    |     |                |     |     |               |    |    |       |
| 1111, 1139 Karlstad Dr          | 27             | 47   |    | -20           |    |     |                | -29 |     |               |    |    | 25    |
| 423 E. Maude Ave                |                |      |    |               |    |     |                |     |     |               |    |    |       |
| 460 Persian Dr                  | 6              | 11   |    | -8            |    |     |                | -12 |     |               |    |    | -3    |
| 520-550, 610 Weddell Dr         | 69             | 118  |    | -25           |    |     |                | -36 |     |               |    |    | 126   |
| 625 E. Taylor Ave               |                | -2   |    |               |    | -1  |                | 2   | 1   |               |    |    |       |
| 680-698 E. Taylor Ave           |                | -7   |    |               |    | -4  |                | 5   | 4   |               |    |    | -2    |
| 701-755 E. Evelyn Ave           |                |      |    |               |    | -18 |                |     |     |               |    |    | -18   |
| 915 De Guigne Dr                |                | -15  |    |               |    |     |                | 13  | 20  |               |    |    | 18    |
| City Place (Phase 1-3)          | 4              | 8    |    | 3             | 8  | 8   |                | 17  | 5   |               |    |    | 53    |
| 840 E. El Camino Real           |                |      |    |               |    |     |                |     |     |               |    |    |       |
| Irvine Company - Pathline Park  | 10             | 4    |    |               |    |     |                | 2   |     |               |    |    | 16    |
| <i>Total Approved Trips</i>     | 116            | 283  | 0  | 103           | 8  | 14  | 0              | 141 | 122 | 0             | 0  | 0  | 787   |
| Background Conditions           | 610            | 1012 | 0  | 372           | 8  | 270 | 0              | 926 | 661 | 0             | 0  | 0  | 3859  |
| <b>Project Trips</b>            | 0              | 16   | 0  | 0             | 0  | 0   | 0              | 18  | 0   | 0             | 0  | 0  | 34    |
| Existing + Project              | 494            | 745  | 0  | 269           | 0  | 256 | 0              | 803 | 539 | 0             | 0  | 0  | 3106  |
| Background + Project            | 610            | 1028 | 0  | 372           | 8  | 270 | 0              | 944 | 661 | 0             | 0  | 0  | 3893  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 18

Intersection Name: Fair Oaks Ave &amp; Ahwanee Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 04/04/17

Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |    |                |      |     |               |    |     | Total |
|---------------------------------|----------------|------|----|---------------|----|----|----------------|------|-----|---------------|----|-----|-------|
|                                 | North Approach |      |    | East Approach |    |    | South Approach |      |     | West Approach |    |     |       |
|                                 | RT             | TH   | LT | RT            | TH | LT | RT             | TH   | LT  | RT            | TH | LT  |       |
| Existing Conditions             | 294            | 801  | 32 | 229           | 69 | 35 | 24             | 1311 | 60  | 55            | 26 | 229 | 3165  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |    |                |      |     |               |    |     |       |
| 1080 Stewart Dr                 |                |      |    |               |    |    |                |      |     |               |    |     |       |
| 1100 N. Mathilda Ave            |                |      |    |               |    |    |                |      |     |               |    |     |       |
| 1235 Bordeaux Dr                |                |      |    |               |    |    |                |      |     |               |    |     |       |
| 696 N. Mathilda Ave             | 12             |      |    |               |    |    |                |      |     |               |    | 11  | 23    |
| 725 S. Fair Oaks Ave            |                | 11   |    |               |    |    |                | 8    |     |               |    |     | 19    |
| 750 Lakeway Dr                  |                |      |    |               |    |    |                |      |     |               |    |     |       |
| 767 N. Mathilda Ave             |                |      |    |               |    |    |                |      |     |               |    |     |       |
| 830 E. El Camino Real           |                | 7    |    |               |    |    |                |      | 5   |               |    |     | 12    |
| 861 E. El Camino Real           |                | 9    |    |               |    |    |                |      | 7   |               |    |     | 16    |
| 1050 Kifer Rd                   |                | 69   |    |               |    |    |                |      | 11  |               |    |     | 80    |
| 1081 Innovation Way             |                | 1    |    |               |    |    |                |      | 53  |               |    |     | 54    |
| 1111 Lockheed Martin Way        |                | 6    |    |               |    |    |                |      | 21  |               |    |     | 27    |
| 1152 Bordeaux Dr                |                | 4    |    |               |    |    |                |      | 21  |               |    |     | 25    |
| 1184 N. Mathilda Ave            |                |      |    |               |    |    |                |      |     |               |    |     |       |
| 1212 Bordeaux Dr                |                | 1    |    |               |    |    |                |      | 7   |               |    |     | 8     |
| 1221 Crossman Ave               |                | 6    |    |               |    |    |                |      | 30  |               |    |     | 36    |
| 215 Moffett Park Dr             |                | 2    |    |               |    |    |                |      | 5   |               |    |     | 7     |
| 221 N. Mathilda Ave             |                | 3    |    |               |    |    |                |      |     |               |    |     | 3     |
| 280 Santa Ana Ct                |                | 41   |    |               |    |    |                |      | 9   |               |    |     | 50    |
| 495 E. Java Dr & 549 Baltic Way |                | 7    |    |               |    |    |                |      | 36  |               |    |     | 43    |
| 520 Almanor Ave                 |                |      |    |               |    |    |                |      |     | 2             |    |     | 2     |
| 589 W. Java Dr                  |                | 3    |    |               |    |    |                |      | 16  |               |    |     | 19    |
| 615 N. Mathilda Ave             |                | 3    |    |               |    |    |                |      |     |               |    |     | 3     |
| 684 W. Maude Ave                |                | 7    |    |               |    |    |                |      | 1   |               |    |     | 8     |
| 1120 Kifer Rd                   |                | 8    |    |               |    |    |                |      | 31  |               |    |     | 39    |
| 2502 Town Center Ln             |                | 18   |    |               |    |    |                |      | 20  |               |    |     | 38    |
| 675 Almanor Avenue              |                |      |    |               |    |    |                |      |     |               |    |     |       |
| 1111, 1139 Karlstad Dr          |                | 17   |    |               |    |    |                |      | -11 |               |    |     | 6     |
| 423 E. Maude Ave                |                |      |    |               |    |    |                |      |     |               |    |     |       |
| 460 Persian Dr                  |                | 4    |    |               |    |    |                |      | -5  |               |    |     | -1    |
| 520-550, 610 Weddell Dr         |                | 41   |    |               |    |    |                |      | -13 |               |    |     | 28    |
| 625 E. Taylor Ave               |                | -4   |    |               |    |    |                |      | 4   |               |    |     |       |
| 680-698 E. Taylor Ave           |                | -16  |    |               |    |    |                |      | 12  |               |    |     | -4    |
| 701-755 E. Evelyn Ave           |                | -18  |    |               |    |    |                | 6    |     |               |    |     | -12   |
| 915 De Guigne Dr                |                | -37  |    |               |    |    |                |      | 33  |               |    |     | -4    |
| City Place (Phase 1-3)          |                | 1    | 3  |               | 2  | 3  | 2              | 2    |     | 5             | 5  |     | 23    |
| 840 E. El Camino Real           |                |      |    |               |    |    |                |      |     |               |    |     |       |
| Irvine Company - Pathline Park  |                | 4    |    |               |    |    |                |      | 1   |               |    |     | 5     |
| <i>Total Approved Trips</i>     | 12             | 198  | 3  | 0             | 2  | 3  | 8              | 304  | 2   | 5             | 5  | 11  | 553   |
| Background Conditions           | 306            | 999  | 35 | 229           | 71 | 38 | 32             | 1615 | 62  | 60            | 31 | 240 | 3718  |
| <b>Project Trips</b>            | 0              | 16   | 0  | 0             | 0  | 8  | 0              | 0    | 0   | 48            | 7  | 18  | 97    |
| Existing + Project              | 294            | 817  | 32 | 229           | 69 | 43 | 24             | 1311 | 60  | 103           | 33 | 247 | 3262  |
| Background + Project            | 306            | 1015 | 35 | 229           | 71 | 46 | 32             | 1615 | 62  | 108           | 38 | 258 | 3815  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 19

Intersection Name: Fair Oaks Ave &amp; Duane Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 04/04/17

Scenario: Summit School TIA

| Scenario:                       | Movements      |     |     |               |     |     |                |      |    |               |     |     | Total |
|---------------------------------|----------------|-----|-----|---------------|-----|-----|----------------|------|----|---------------|-----|-----|-------|
|                                 | North Approach |     |     | East Approach |     |     | South Approach |      |    | West Approach |     |     |       |
|                                 | RT             | TH  | LT  | RT            | TH  | LT  | RT             | TH   | LT | RT            | TH  | LT  |       |
| Existing Conditions             | 46             | 642 | 113 | 210           | 121 | 202 | 201            | 965  | 8  | 20            | 117 | 120 | 2765  |
| <b>Approved Project Trips</b>   |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 1080 Stewart Dr                 |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 1100 N. Mathilda Ave            |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 1235 Bordeaux Dr                |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 696 N. Mathilda Ave             |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 725 S. Fair Oaks Ave            |                | 11  |     |               |     |     |                | 8    |    |               |     |     | 19    |
| 750 Lakeway Dr                  |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 767 N. Mathilda Ave             |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 830 E. El Camino Real           |                | 7   |     |               |     |     |                | 5    |    |               |     |     | 12    |
| 861 E. El Camino Real           |                | 9   |     |               |     |     |                | 7    |    |               |     |     | 16    |
| 1050 Kifer Rd                   |                | 69  |     |               |     |     |                | 11   |    |               |     |     | 80    |
| 1081 Innovation Way             |                | 1   |     |               |     |     |                | 53   |    |               |     |     | 54    |
| 1111 Lockheed Martin Way        | 2              | 4   |     |               |     |     |                | 14   |    |               |     | 7   | 27    |
| 1152 Bordeaux Dr                |                | 4   |     |               |     |     |                | 21   |    |               |     |     | 25    |
| 1184 N. Mathilda Ave            |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 1212 Bordeaux Dr                |                | 1   |     |               |     |     |                | 7    |    |               |     |     | 8     |
| 1221 Crossman Ave               | 1              | 5   |     | 1             |     |     |                | 26   |    |               |     | 3   | 36    |
| 215 Moffett Park Dr             |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 221 N. Mathilda Ave             |                | 3   |     |               |     |     |                |      |    |               |     |     | 3     |
| 280 Santa Ana Ct                |                | 41  |     |               |     |     |                | 9    |    |               |     |     | 50    |
| 495 E. Java Dr & 549 Baltic Way |                | 7   |     |               |     |     |                | 36   |    |               |     |     | 43    |
| 520 Almanor Ave                 |                |     |     | 1             |     |     |                | 1    |    |               |     |     | 2     |
| 589 W. Java Dr                  |                | 3   |     |               |     |     |                | 16   |    |               |     |     | 19    |
| 615 N. Mathilda Ave             |                | 3   |     |               |     |     |                |      |    |               |     |     | 3     |
| 684 W. Maude Ave                |                | 7   |     |               |     |     |                | 1    |    |               |     |     | 8     |
| 1120 Kifer Rd                   |                | 8   |     |               |     |     |                | 31   |    |               |     |     | 39    |
| 2502 Town Center Ln             |                | 18  |     |               |     | 5   | 3              | 20   |    |               |     |     | 46    |
| 675 Almanor Avenue              |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 1111, 1139 Karlstad Dr          |                | 17  |     |               |     |     |                | -11  |    |               |     |     | 6     |
| 423 E. Maude Ave                |                |     |     |               |     |     |                |      |    |               |     |     |       |
| 460 Persian Dr                  |                | 4   |     |               |     |     |                | -5   |    |               |     |     | -1    |
| 520-550, 610 Weddell Dr         |                | 41  |     |               |     |     |                | -13  |    |               |     |     | 28    |
| 625 E. Taylor Ave               |                | -4  |     |               |     |     |                | 4    |    |               |     |     |       |
| 680-698 E. Taylor Ave           |                | -16 |     |               |     |     |                | 12   |    |               |     |     | -4    |
| 701-755 E. Evelyn Ave           |                | -18 |     |               |     |     |                | 6    |    |               |     |     | -12   |
| 915 De Guigne Dr                |                | -16 | -21 | 22            |     |     |                | 11   |    |               |     |     | -4    |
| City Place (Phase 1-3)          | 6              | 4   | 6   | 1             | 7   | 2   | 9              | 7    | 7  | 7             | 3   | 4   | 63    |
| 840 E. El Camino Real           |                |     |     |               |     |     |                |      |    |               |     |     |       |
| Irvine Company - Pathline Park  |                | 4   |     |               |     |     |                | 1    |    |               |     |     | 5     |
| <i>Total Approved Trips</i>     | 9              | 217 | -15 | 25            | 7   | 7   | 12             | 278  | 7  | 7             | 3   | 14  | 571   |
| Background Conditions           | 55             | 859 | 98  | 235           | 128 | 209 | 213            | 1243 | 15 | 27            | 120 | 134 | 3336  |
| <b>Project Trips</b>            | 0              | 72  | 0   | 0             | 0   | 8   | 0              | 0    | 0  | 0             | 7   | 0   | 87    |
| Existing + Project              | 46             | 714 | 113 | 210           | 121 | 210 | 201            | 965  | 8  | 20            | 124 | 120 | 2852  |
| Background + Project            | 55             | 931 | 98  | 235           | 128 | 217 | 213            | 1243 | 15 | 27            | 127 | 134 | 3423  |



## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 20

Intersection Name: Fair Oaks Ave &amp; Wolfe Rd

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 04/04/17

Scenario: Summit School TIA

| Scenario:                       | Movements      |     |    |               |    |    |                |     |    |               |    |     | Total |
|---------------------------------|----------------|-----|----|---------------|----|----|----------------|-----|----|---------------|----|-----|-------|
|                                 | North Approach |     |    | East Approach |    |    | South Approach |     |    | West Approach |    |     |       |
|                                 | RT             | TH  | LT | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT  |       |
| Existing Conditions             | 622            | 311 | 0  | 0             | 0  | 0  | 0              | 483 | 0  | 7             | 0  | 757 | 2180  |
| <b>Approved Project Trips</b>   |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 1080 Stewart Dr                 |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 1100 N. Mathilda Ave            |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 1235 Bordeaux Dr                |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 696 N. Mathilda Ave             |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 725 S. Fair Oaks Ave            | 11             |     |    |               |    |    |                |     |    |               | 8  |     | 19    |
| 750 Lakeway Dr                  |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 767 N. Mathilda Ave             |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 830 E. El Camino Real           | 7              |     |    |               |    |    |                |     |    |               |    | 5   | 12    |
| 861 E. El Camino Real           | 9              |     |    |               |    |    |                |     |    |               |    | 7   | 16    |
| 1050 Kifer Rd                   |                | 69  |    |               |    |    |                | 11  |    |               |    |     | 80    |
| 1081 Innovation Way             |                | 1   |    |               |    |    |                | 53  |    |               |    |     | 54    |
| 1111 Lockheed Martin Way        |                | 4   |    |               |    |    |                | 14  |    |               |    |     | 18    |
| 1152 Bordeaux Dr                | 2              | 2   |    |               |    |    |                | 11  |    |               |    | 11  | 26    |
| 1184 N. Mathilda Ave            |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 1212 Bordeaux Dr                |                | 1   |    |               |    |    |                | 7   |    |               |    |     | 8     |
| 1221 Crossman Ave               | 3              | 2   |    |               |    |    |                | 11  |    |               |    | 15  | 31    |
| 215 Moffett Park Dr             |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 221 N. Mathilda Ave             | 3              |     |    |               |    |    |                |     |    |               |    |     | 3     |
| 280 Santa Ana Ct                |                | 41  |    |               |    |    |                | 9   |    |               |    |     | 50    |
| 495 E. Java Dr & 549 Baltic Way |                | 7   |    |               |    |    |                | 36  |    |               |    |     | 43    |
| 520 Almanor Ave                 |                |     |    |               |    |    |                | 1   |    |               |    |     | 1     |
| 589 W. Java Dr                  | 3              |     |    |               |    |    |                |     |    |               |    | 16  | 19    |
| 615 N. Mathilda Ave             | 3              |     |    |               |    |    |                |     |    |               |    |     | 3     |
| 684 W. Maude Ave                | 7              |     |    |               |    |    |                |     |    |               |    | 1   | 8     |
| 1120 Kifer Rd                   |                | 8   |    |               |    |    |                | 31  |    |               |    |     | 39    |
| 2502 Town Center Ln             | 24             |     |    |               |    |    |                |     |    |               |    | 23  | 47    |
| 675 Almanor Avenue              |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 1111, 1139 Karlstad Dr          | 11             | 6   |    |               |    |    |                | -4  |    |               |    | -7  | 6     |
| 423 E. Maude Ave                |                |     |    |               |    |    |                |     |    |               |    |     |       |
| 460 Persian Dr                  | 3              | 1   |    |               |    |    |                | -2  |    |               |    | -3  | -1    |
| 520-550, 610 Weddell Dr         | 26             | 15  |    |               |    |    |                | -5  |    |               |    | -8  | 28    |
| 625 E. Taylor Ave               | -4             |     |    |               |    |    |                |     |    |               |    |     | 4     |
| 680-698 E. Taylor Ave           | -16            |     |    |               |    |    |                |     |    |               |    | 12  | -4    |
| 701-755 E. Evelyn Ave           | -18            |     |    |               |    |    |                |     |    |               |    | 6   | -12   |
| 915 De Guigne Dr                |                | -16 |    |               |    |    |                | 11  |    |               |    |     | -5    |
| City Place (Phase 1-3)          |                | 2   |    |               |    |    |                | 5   |    |               |    | 5   | 12    |
| 840 E. El Camino Real           |                |     |    |               |    |    |                |     |    |               |    |     |       |
| Irvine Company - Pathline Park  | 4              |     |    |               |    |    |                |     |    |               |    | 1   | 5     |
| <i>Total Approved Trips</i>     | 78             | 143 | 0  | 0             | 0  | 0  | 0              | 189 | 0  | 0             | 0  | 96  | 506   |
| Background Conditions           | 700            | 454 | 0  | 0             | 0  | 0  | 0              | 672 | 0  | 7             | 0  | 853 | 2686  |
| <b>Project Trips</b>            | 56             | 24  | 0  | 0             | 0  | 0  | 0              | 0   | 0  | 0             | 0  | 0   | 80    |
| Existing + Project              | 678            | 335 | 0  | 0             | 0  | 0  | 0              | 483 | 0  | 7             | 0  | 757 | 2260  |
| Background + Project            | 756            | 478 | 0  | 0             | 0  | 0  | 0              | 672 | 0  | 7             | 0  | 853 | 2766  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 21

Intersection Name: Fair Oaks Ave &amp; Maude Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 05/16/17

Scenario: Summit School TIA

| Scenario:                       | Movements      |     |    |               |     |    |                |     |     |               |     |    | Total |
|---------------------------------|----------------|-----|----|---------------|-----|----|----------------|-----|-----|---------------|-----|----|-------|
|                                 | North Approach |     |    | East Approach |     |    | South Approach |     |     | West Approach |     |    |       |
|                                 | RT             | TH  | LT | RT            | TH  | LT | RT             | TH  | LT  | RT            | TH  | LT |       |
| Existing Conditions             | 93             | 537 | 0  | 2             | 147 | 11 | 14             | 631 | 122 | 108           | 86  | 86 | 1837  |
| <b>Approved Project Trips</b>   |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 1080 Stewart Dr                 |                |     |    |               | 6   |    |                |     |     |               | 8   |    | 14    |
| 1100 N. Mathilda Ave            |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 1235 Bordeaux Dr                |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 696 N. Mathilda Ave             |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 725 S. Fair Oaks Ave            |                | 11  |    |               |     |    |                | 8   |     |               |     |    | 19    |
| 750 Lakeway Dr                  |                |     |    |               | 4   |    |                |     |     |               | 6   |    | 10    |
| 767 N. Mathilda Ave             |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 830 E. El Camino Real           |                | 7   |    |               |     |    |                | 5   |     |               |     |    | 12    |
| 861 E. El Camino Real           |                | 9   |    |               |     |    |                | 7   |     |               |     |    | 16    |
| 1050 Kifer Rd                   |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 1081 Innovation Way             |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 1111 Lockheed Martin Way        |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 1152 Bordeaux Dr                |                | 2   |    |               |     |    |                | 11  |     |               |     |    | 13    |
| 1184 N. Mathilda Ave            |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 1212 Bordeaux Dr                |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 1221 Crossman Ave               | 1              | 2   |    |               |     |    |                | 11  |     |               |     | 4  | 18    |
| 215 Moffett Park Dr             |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 221 N. Mathilda Ave             | 3              |     |    |               |     |    |                |     |     |               |     |    | 3     |
| 280 Santa Ana Ct                |                |     |    |               | 1   |    |                |     |     |               | 7   |    | 8     |
| 495 E. Java Dr & 549 Baltic Way |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 520 Almanor Ave                 |                |     |    |               | 1   |    |                |     |     |               |     |    | 1     |
| 589 W. Java Dr                  |                | 3   |    |               |     |    |                | 16  |     |               |     |    | 19    |
| 615 N. Mathilda Ave             | 3              |     |    |               | 1   |    |                |     |     |               | -1  |    | 3     |
| 684 W. Maude Ave                | 7              |     |    |               | 7   |    |                |     |     |               | 1   | 1  | 16    |
| 1120 Kifer Rd                   |                |     |    |               |     |    |                |     |     |               | -2  |    | -2    |
| 2502 Town Center Ln             |                | 24  |    |               |     |    |                | 23  |     |               |     |    | 47    |
| 675 Almanor Avenue              |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 1111, 1139 Karlstad Dr          |                | 11  |    |               |     |    |                | -7  |     |               |     |    | 4     |
| 423 E. Maude Ave                |                |     |    |               |     |    |                |     |     |               |     |    |       |
| 460 Persian Dr                  |                | 3   |    |               |     |    |                | -3  |     |               |     |    |       |
| 520-550, 610 Weddell Dr         |                | 26  |    |               |     |    |                | -8  |     |               |     |    | 18    |
| 625 E. Taylor Ave               |                | -4  |    |               |     |    |                | 4   | 1   | -1            |     |    |       |
| 680-698 E. Taylor Ave           |                | -16 |    |               |     |    |                | 12  | 2   | -3            |     |    | -5    |
| 701-755 E. Evelyn Ave           |                | -18 |    |               |     |    |                | 6   |     |               |     |    | -12   |
| 915 De Guigne Dr                |                |     |    |               | 20  |    |                |     |     |               | -22 |    | -2    |
| City Place (Phase 1-3)          | 4              | 8   | 9  | 7             | 3   | 1  | 1              | 5   | 7   | 2             | 7   | 1  | 55    |
| 840 E. El Camino Real           |                |     |    |               |     |    |                |     |     |               |     |    |       |
| Irvine Company - Pathline Park  | 4              |     |    |               | 13  |    |                |     |     |               | 2   | 1  | 20    |
| <i>Total Approved Trips</i>     | 22             | 68  | 9  | 7             | 56  | 1  | 1              | 90  | 10  | -2            | 6   | 7  | 275   |
| Background Conditions           | 115            | 605 | 9  | 9             | 203 | 12 | 15             | 721 | 132 | 106           | 92  | 93 | 2112  |
| <b>Project Trips</b>            | 32             | 24  | 0  | 0             | 14  | 0  | 0              | 0   | 27  | 0             | 0   | 0  | 97    |
| Existing + Project              | 125            | 561 | 0  | 2             | 161 | 11 | 14             | 631 | 149 | 108           | 86  | 86 | 1934  |
| Background + Project            | 147            | 629 | 9  | 9             | 217 | 12 | 15             | 721 | 159 | 106           | 92  | 93 | 2209  |

## Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 22  
 Intersection Name: Wolfe Rd & Maude Ave  
 Peak Hour: AM  
 Count Date: 05/25/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |     |    |               |    |    |                |     |     |               |    |    | Total |
|---------------------------------|----------------|-----|----|---------------|----|----|----------------|-----|-----|---------------|----|----|-------|
|                                 | North Approach |     |    | East Approach |    |    | South Approach |     |     | West Approach |    |    |       |
|                                 | RT             | TH  | LT | RT            | TH | LT | RT             | TH  | LT  | RT            | TH | LT |       |
| Existing Conditions             | 3              | 324 | 3  | 6             | 4  | 3  | 3              | 517 | 168 | 92            | 6  | 9  | 1138  |
| <b>Approved Project Trips</b>   |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 1080 Stewart Dr                 |                |     |    |               |    |    |                |     | 6   | 8             |    |    | 14    |
| 1100 N. Mathilda Ave            |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 1235 Bordeaux Dr                |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 696 N. Mathilda Ave             |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 725 S. Fair Oaks Ave            |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 750 Lakeway Dr                  |                |     |    |               |    |    |                |     | 4   | 6             |    |    | 10    |
| 767 N. Mathilda Ave             |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 830 E. El Camino Real           |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 861 E. El Camino Real           |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 1050 Kifer Rd                   |                | 69  |    |               |    |    |                | 11  |     |               |    |    | 80    |
| 1081 Innovation Way             |                | 1   |    |               |    |    |                | 53  |     |               |    |    | 54    |
| 1111 Lockheed Martin Way        |                | 4   |    |               |    |    |                | 14  |     |               |    |    | 18    |
| 1152 Bordeaux Dr                |                | 2   |    |               |    |    |                | 11  |     |               |    |    | 13    |
| 1184 N. Mathilda Ave            |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 1212 Bordeaux Dr                |                | 1   |    |               |    |    |                | 7   |     |               |    |    | 8     |
| 1221 Crossman Ave               |                | 2   |    |               |    |    |                | 11  |     |               |    |    | 13    |
| 215 Moffett Park Dr             |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 221 N. Mathilda Ave             |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 280 Santa Ana Ct                |                | 41  |    |               |    |    |                | 9   | 1   | 7             |    |    | 58    |
| 495 E. Java Dr & 549 Baltic Way |                | 7   |    |               |    |    |                | 36  |     |               |    |    | 43    |
| 520 Almanor Ave                 |                |     |    |               |    |    |                | 1   | 1   |               |    |    | 2     |
| 589 W. Java Dr                  |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 615 N. Mathilda Ave             |                |     |    |               |    |    |                |     | 1   | -1            |    |    |       |
| 684 W. Maude Ave                |                |     |    |               |    |    |                |     | 7   | 1             |    |    | 8     |
| 1120 Kifer Rd                   |                | 8   |    |               |    |    |                | 31  |     | -2            |    |    | 37    |
| 2502 Town Center Ln             |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 675 Almanor Avenue              |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 1111, 1139 Karlstad Dr          |                | 6   |    |               |    |    |                | -4  |     |               |    |    | 2     |
| 423 E. Maude Ave                |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 460 Persian Dr                  |                | 1   |    |               |    |    |                | -2  |     |               |    |    | -1    |
| 520-550, 610 Weddell Dr         |                | 15  |    |               |    |    |                | -5  |     |               |    |    | 10    |
| 625 E. Taylor Ave               |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 680-698 E. Taylor Ave           |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 915 De Guigne Dr                |                | -16 |    |               |    |    |                | 11  | 20  | -22           |    |    | -7    |
| City Place (Phase 1-3)          |                |     |    |               |    |    |                |     |     |               |    |    |       |
| 840 E. El Camino Real           |                |     |    |               |    |    |                |     |     |               |    |    |       |
| Irvine Company - Pathline Park  |                |     |    |               |    |    |                |     | 13  | 2             |    |    | 15    |
| <i>Total Approved Trips</i>     | 0              | 141 | 0  | 0             | 0  | 0  | 0              | 184 | 53  | -1            | 0  | 0  | 377   |
| Background Conditions           | 3              | 465 | 3  | 6             | 4  | 3  | 3              | 701 | 221 | 91            | 6  | 9  | 1515  |
| <b>Project Trips</b>            | 0              | 24  | 0  | 0             | 0  | 0  | 0              | 0   | 14  | 0             | 0  | 0  | 38    |
| Existing + Project              | 3              | 348 | 3  | 6             | 4  | 3  | 3              | 517 | 182 | 92            | 6  | 9  | 1176  |
| Background + Project            | 3              | 489 | 3  | 6             | 4  | 3  | 3              | 701 | 235 | 91            | 6  | 9  | 1553  |

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 23  
 Intersection Name: Wolfe Rd & Arques Ave  
 Peak Hour: AM  
 Count Date: 04/04/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |     |     |               |     |     |                |     |    |               |     |    | Total |
|---------------------------------|----------------|-----|-----|---------------|-----|-----|----------------|-----|----|---------------|-----|----|-------|
|                                 | North Approach |     |     | East Approach |     |     | South Approach |     |    | West Approach |     |    |       |
|                                 | RT             | TH  | LT  | RT            | TH  | LT  | RT             | TH  | LT | RT            | TH  | LT |       |
| Existing Conditions             | 17             | 253 | 95  | 69            | 142 | 122 | 434            | 725 | 27 | 11            | 300 | 76 | 2271  |
| <b>Approved Project Trips</b>   |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 1080 Stewart Dr                 |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 1100 N. Mathilda Ave            |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 1235 Bordeaux Dr                |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 696 N. Mathilda Ave             |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 725 S. Fair Oaks Ave            |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 750 Lakeway Dr                  |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 767 N. Mathilda Ave             |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 830 E. El Camino Real           |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 861 E. El Camino Real           |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 1050 Kifer Rd                   |                | 83  |     |               |     |     |                |     | 13 |               |     |    | 96    |
| 1081 Innovation Way             |                | 1   |     |               |     |     |                |     | 53 |               |     |    | 54    |
| 1111 Lockheed Martin Way        |                | 4   |     |               |     |     |                |     | 14 |               |     |    | 18    |
| 1152 Bordeaux Dr                |                | 2   |     |               |     |     |                |     | 11 |               |     |    | 13    |
| 1184 N. Mathilda Ave            |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 1212 Bordeaux Dr                |                | 1   |     |               |     |     |                |     | 7  |               |     |    | 8     |
| 1221 Crossman Ave               |                | 2   |     |               |     |     |                |     | 11 |               |     |    | 13    |
| 215 Moffett Park Dr             |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 221 N. Mathilda Ave             |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 280 Santa Ana Ct                |                | 13  | 36  |               | 5   | 3   | 19             | 26  | 5  | 14            | 4   | 44 | 169   |
| 495 E. Java Dr & 549 Baltic Way |                | 7   |     |               |     |     |                |     | 36 |               |     |    | 43    |
| 520 Almanor Ave                 |                |     |     |               |     |     |                |     | 2  |               |     |    | 2     |
| 589 W. Java Dr                  |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 615 N. Mathilda Ave             |                | -1  |     |               |     |     |                |     | 1  |               |     |    |       |
| 684 W. Maude Ave                |                | 1   |     |               |     |     |                |     | 7  |               |     |    | 8     |
| 1120 Kifer Rd                   |                | 6   |     |               |     |     |                |     | 31 |               |     |    | 37    |
| 2502 Town Center Ln             |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 675 Almanor Avenue              |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 1111, 1139 Karlstad Dr          |                | 6   |     |               |     |     |                |     |    | -4            |     |    | 2     |
| 423 E. Maude Ave                |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 460 Persian Dr                  |                | 1   |     |               |     |     |                |     |    | -2            |     |    | -1    |
| 520-550, 610 Weddell Dr         |                | 15  |     |               |     |     |                |     |    | -5            |     |    | 10    |
| 625 E. Taylor Ave               |                |     |     |               |     |     |                |     |    |               |     | 1  |       |
| 680-698 E. Taylor Ave           |                |     |     |               |     |     |                |     |    |               |     | 2  | -1    |
| 701-755 E. Evelyn Ave           |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 915 De Guigne Dr                |                | 6   |     |               |     |     |                |     |    |               |     | 3  | -3    |
| City Place (Phase 1-3)          |                |     |     |               |     |     |                |     |    |               |     |    |       |
| 840 E. El Camino Real           |                |     |     |               |     |     |                |     |    |               |     |    |       |
| Irvine Company - Pathline Park  |                | 2   |     |               |     |     |                |     |    |               |     | 13 | 15    |
| <i>Total Approved Trips</i>     | 0              | 149 | 36  | 5             | -1  | 22  | 23             | 193 | 14 | 4             | 47  | 0  | 492   |
| Background Conditions           | 17             | 402 | 131 | 74            | 141 | 144 | 457            | 918 | 41 | 15            | 347 | 76 | 2763  |
| <b>Project Trips</b>            | 0              | 24  | 0   | 0             | 0   | 0   | 0              | 14  | 0  | 0             | 0   | 0  | 38    |
| Existing + Project              | 17             | 277 | 95  | 69            | 142 | 122 | 434            | 739 | 27 | 11            | 300 | 76 | 2309  |
| Background + Project            | 17             | 426 | 131 | 74            | 141 | 144 | 457            | 932 | 41 | 15            | 347 | 76 | 2801  |

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 24  
 Intersection Name: Wolfe Rd & Central Expwy Ramps  
 Peak Hour: AM  
 Count Date: 04/04/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |     |    |               |    |     |                |      |     |               |    |     | Total |
|---------------------------------|----------------|-----|----|---------------|----|-----|----------------|------|-----|---------------|----|-----|-------|
|                                 | North Approach |     |    | East Approach |    |     | South Approach |      |     | West Approach |    |     |       |
|                                 | RT             | TH  | LT | RT            | TH | LT  | RT             | TH   | LT  | RT            | TH | LT  |       |
| Existing Conditions             | 127            | 342 | 30 | 92            | 0  | 131 | 540            | 1057 | 393 | 159           | 1  | 119 | 2991  |
| <b>Approved Project Trips</b>   |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 1080 Stewart Dr                 |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 1100 N. Mathilda Ave            |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 1235 Bordeaux Dr                |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 696 N. Mathilda Ave             |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 725 S. Fair Oaks Ave            |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 750 Lakeway Dr                  |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 767 N. Mathilda Ave             |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 830 E. El Camino Real           |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 861 E. El Camino Real           |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 1050 Kifer Rd                   |                | 83  |    |               |    |     |                | 13   | 4   | 23            |    |     | 123   |
| 1081 Innovation Way             |                | 1   |    |               |    |     |                | 53   |     |               |    |     | 54    |
| 1111 Lockheed Martin Way        |                | 4   |    |               |    |     |                | 14   |     |               |    |     | 18    |
| 1152 Bordeaux Dr                |                | 2   |    |               |    |     |                | 11   |     |               |    |     | 13    |
| 1184 N. Mathilda Ave            |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 1212 Bordeaux Dr                |                | 1   |    |               |    |     |                | 7    |     |               |    |     | 8     |
| 1221 Crossman Ave               |                | 2   |    |               |    |     |                | 11   |     |               |    |     | 13    |
| 215 Moffett Park Dr             |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 221 N. Mathilda Ave             |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 280 Santa Ana Ct                | 1              | 5   | 38 | 37            |    | 7   |                | 58   |     |               |    | 35  | 181   |
| 495 E. Java Dr & 549 Baltic Way |                | 7   |    |               |    |     |                | 36   |     |               |    |     | 43    |
| 520 Almanor Ave                 |                |     |    |               |    |     |                | 2    |     |               |    |     | 2     |
| 589 W. Java Dr                  |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 615 N. Mathilda Ave             |                | -1  |    |               |    |     |                | 1    |     |               |    |     |       |
| 684 W. Maude Ave                |                | 1   |    |               |    |     |                | 7    |     |               |    |     | 8     |
| 1120 Kifer Rd                   |                | 6   |    |               |    |     |                | 31   | 29  | 6             |    |     | 72    |
| 2502 Town Center Ln             |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 675 Almanor Avenue              |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 1111, 1139 Karlstad Dr          |                | 6   |    |               |    |     |                |      | -4  |               |    |     | 2     |
| 423 E. Maude Ave                |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 460 Persian Dr                  |                | 1   |    |               |    |     |                |      | -2  |               |    |     | -1    |
| 520-550, 610 Weddell Dr         |                | 15  |    |               |    |     |                |      | -5  |               |    |     | 10    |
| 625 E. Taylor Ave               |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 680-698 E. Taylor Ave           |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 701-755 E. Evelyn Ave           |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 915 De Guigne Dr                | 3              | 5   |    |               |    |     |                |      | -6  |               |    | -7  | -5    |
| City Place (Phase 1-3)          |                |     |    |               |    |     |                |      |     |               |    |     |       |
| 840 E. El Camino Real           |                |     |    |               |    |     |                |      |     |               |    |     |       |
| Irvine Company - Pathline Park  |                | 2   |    |               |    |     |                | 13   |     |               |    |     | 15    |
| <i>Total Approved Trips</i>     | 4              | 140 | 38 | 37            | 0  | 7   | 0              | 240  | 33  | 29            | 0  | 28  | 556   |
| Background Conditions           | 131            | 482 | 68 | 129           | 0  | 138 | 540            | 1297 | 426 | 188           | 1  | 147 | 3547  |
| <b>Project Trips</b>            | 0              | 12  | 12 | 0             | 0  | 0   | 0              | 14   | 14  | 12            | 0  | 0   | 64    |
| Existing + Project              | 127            | 354 | 42 | 92            | 0  | 131 | 540            | 1071 | 407 | 171           | 1  | 119 | 3055  |
| Background + Project            | 131            | 494 | 80 | 129           | 0  | 138 | 540            | 1311 | 440 | 200           | 1  | 147 | 3611  |

Summit School TIA Volume Spreadsheet - School PM Peak Hour

|                               |                                |      |    |               |    |     |                |     |     |               |    |    |       |
|-------------------------------|--------------------------------|------|----|---------------|----|-----|----------------|-----|-----|---------------|----|----|-------|
| Traffic Node Number:          | 1                              |      |    |               |    |     |                |     |     |               |    |    |       |
| Intersection Name:            | Mathilda Ave & SR 237 WB Ramps |      |    |               |    |     |                |     |     |               |    |    |       |
| Peak Hour:                    | School PM                      |      |    |               |    |     |                |     |     |               |    |    |       |
| Count Date:                   | 11/00/15                       |      |    |               |    |     |                |     |     |               |    |    |       |
| Scenario:                     | Summit School TIA              |      |    |               |    |     |                |     |     |               |    |    |       |
|                               | Movements                      |      |    |               |    |     |                |     |     |               |    |    |       |
|                               | North Approach                 |      |    | East Approach |    |     | South Approach |     |     | West Approach |    |    |       |
| Scenario:                     | RT                             | TH   | LT | RT            | TH | LT  | RT             | TH  | LT  | RT            | TH | LT | Total |
| Existing Conditions           | 312                            | 1362 | 0  | 62            | 26 | 402 | 0              | 435 | 94  | 0             | 0  | 0  | 2693  |
| <b>Approved Project Trips</b> |                                |      |    |               |    |     |                |     |     |               |    |    |       |
| <i>Total Approved Trips</i>   | 423                            | 863  | 0  | 60            | 0  | 41  | 0              | 351 | 9   | 0             | 0  | 0  | 1747  |
| Background Conditions         | 735                            | 2225 | 0  | 122           | 26 | 443 | 0              | 786 | 103 | 0             | 0  | 0  | 4440  |
| <b>Project Trips</b>          | 0                              | 0    | 0  | 0             | 0  | 8   | 0              | 0   | 0   | 0             | 0  | 0  | 8     |
| Existing + Project            | 312                            | 1362 | 0  | 62            | 26 | 410 | 0              | 435 | 94  | 0             | 0  | 0  | 2701  |
| Background + Project          | 735                            | 2225 | 0  | 122           | 26 | 451 | 0              | 786 | 103 | 0             | 0  | 0  | 4448  |

|                               |                                |      |     |               |    |    |                |     |    |               |    |     |       |
|-------------------------------|--------------------------------|------|-----|---------------|----|----|----------------|-----|----|---------------|----|-----|-------|
| Traffic Node Number:          | 2                              |      |     |               |    |    |                |     |    |               |    |     |       |
| Intersection Name:            | Mathilda Ave & SR 237 EB Ramps |      |     |               |    |    |                |     |    |               |    |     |       |
| Peak Hour:                    | School PM                      |      |     |               |    |    |                |     |    |               |    |     |       |
| Count Date:                   | 11/00/15                       |      |     |               |    |    |                |     |    |               |    |     |       |
| Scenario:                     | Summit School TIA              |      |     |               |    |    |                |     |    |               |    |     |       |
|                               | Movements                      |      |     |               |    |    |                |     |    |               |    |     |       |
|                               | North Approach                 |      |     | East Approach |    |    | South Approach |     |    | West Approach |    |     |       |
| Scenario:                     | RT                             | TH   | LT  | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT  | Total |
| Existing Conditions           | 0                              | 1385 | 373 | 0             | 0  | 0  | 512            | 369 | 0  | 105           | 0  | 167 | 2911  |
| <b>Approved Project Trips</b> |                                |      |     |               |    |    |                |     |    |               |    |     |       |
| <i>Total Approved Trips</i>   | 0                              | 736  | 200 | 0             | 0  | 0  | 172            | 207 | 0  | 8             | 0  | 165 | 1488  |
| Background Conditions         | 0                              | 2121 | 573 | 0             | 0  | 0  | 684            | 576 | 0  | 113           | 0  | 332 | 4399  |
| <b>Project Trips</b>          | 0                              | 8    | 0   | 0             | 0  | 0  | 7              | 0   | 0  | 0             | 0  | 0   | 15    |
| Existing + Project            | 0                              | 1393 | 373 | 0             | 0  | 0  | 519            | 369 | 0  | 105           | 0  | 167 | 2926  |
| Background + Project          | 0                              | 2129 | 573 | 0             | 0  | 0  | 691            | 576 | 0  | 113           | 0  | 332 | 4414  |

|                               |                        |      |     |               |    |     |                |      |    |               |    |    |       |
|-------------------------------|------------------------|------|-----|---------------|----|-----|----------------|------|----|---------------|----|----|-------|
| Traffic Node Number:          | 3                      |      |     |               |    |     |                |      |    |               |    |    |       |
| Intersection Name:            | Mathilda Ave & Ross Dr |      |     |               |    |     |                |      |    |               |    |    |       |
| Peak Hour:                    | School PM              |      |     |               |    |     |                |      |    |               |    |    |       |
| Count Date:                   | 11/00/15               |      |     |               |    |     |                |      |    |               |    |    |       |
| Scenario:                     | Summit School TIA      |      |     |               |    |     |                |      |    |               |    |    |       |
|                               | Movements              |      |     |               |    |     |                |      |    |               |    |    |       |
|                               | North Approach         |      |     | East Approach |    |     | South Approach |      |    | West Approach |    |    |       |
| Scenario:                     | RT                     | TH   | LT  | RT            | TH | LT  | RT             | TH   | LT | RT            | TH | LT | Total |
| Existing Conditions           | 19                     | 1300 | 104 | 85            | 2  | 105 | 141            | 719  | 29 | 60            | 4  | 51 | 2619  |
| <b>Approved Project Trips</b> |                        |      |     |               |    |     |                |      |    |               |    |    |       |
| <i>Total Approved Trips</i>   | 0                      | 618  | 15  | 1             | 0  | 6   | 6              | 322  | 0  | 0             | 0  | 0  | 968   |
| Background Conditions         | 19                     | 1918 | 119 | 86            | 2  | 111 | 147            | 1041 | 29 | 60            | 4  | 51 | 3587  |
| <b>Project Trips</b>          | 0                      | 8    | 0   | 0             | 0  | 5   | 3              | 7    | 0  | 0             | 0  | 0  | 23    |
| Existing + Project            | 19                     | 1308 | 104 | 85            | 2  | 110 | 144            | 726  | 29 | 60            | 4  | 51 | 2642  |
| Background + Project          | 19                     | 1926 | 119 | 86            | 2  | 116 | 150            | 1048 | 29 | 60            | 4  | 51 | 3610  |

|                               |                            |      |     |               |    |    |                |      |    |               |    |     |       |
|-------------------------------|----------------------------|------|-----|---------------|----|----|----------------|------|----|---------------|----|-----|-------|
| Traffic Node Number:          | 4                          |      |     |               |    |    |                |      |    |               |    |     |       |
| Intersection Name:            | Mathilda Ave & Almanor Ave |      |     |               |    |    |                |      |    |               |    |     |       |
| Peak Hour:                    | School PM                  |      |     |               |    |    |                |      |    |               |    |     |       |
| Count Date:                   | 11/00/15                   |      |     |               |    |    |                |      |    |               |    |     |       |
| Scenario:                     | Summit School TIA          |      |     |               |    |    |                |      |    |               |    |     |       |
|                               | Movements                  |      |     |               |    |    |                |      |    |               |    |     |       |
|                               | North Approach             |      |     | East Approach |    |    | South Approach |      |    | West Approach |    |     |       |
| Scenario:                     | RT                         | TH   | LT  | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT  | Total |
| Existing Conditions           | 74                         | 1505 | 158 | 107           | 5  | 23 | 25             | 1044 | 28 | 37            | 21 | 189 | 3216  |
| <b>Approved Project Trips</b> |                            |      |     |               |    |    |                |      |    |               |    |     |       |
| <i>Total Approved Trips</i>   | 60                         | 468  | 7   | 1             | 0  | 0  | 0              | 359  | 19 | 41            | 1  | 414 | 1370  |
| Background Conditions         | 134                        | 1973 | 165 | 108           | 5  | 23 | 25             | 1403 | 47 | 78            | 22 | 603 | 4586  |
| <b>Project Trips</b>          | 0                          | 58   | 0   | 54            | 0  | 41 | 0              | 0    | 0  | 0             | 0  | 0   | 153   |
| Existing + Project            | 74                         | 1563 | 158 | 161           | 5  | 64 | 25             | 1044 | 28 | 37            | 21 | 189 | 3369  |
| Background + Project          | 134                        | 2031 | 165 | 162           | 5  | 64 | 25             | 1403 | 47 | 78            | 22 | 603 | 4739  |

|                               |                              |      |     |               |    |    |                |      |    |               |    |    |       |
|-------------------------------|------------------------------|------|-----|---------------|----|----|----------------|------|----|---------------|----|----|-------|
| Traffic Node Number:          | 5                            |      |     |               |    |    |                |      |    |               |    |    |       |
| Intersection Name:            | Mathilda Ave & San Aleso Ave |      |     |               |    |    |                |      |    |               |    |    |       |
| Peak Hour:                    | School PM                    |      |     |               |    |    |                |      |    |               |    |    |       |
| Count Date:                   | 11/00/15                     |      |     |               |    |    |                |      |    |               |    |    |       |
| Scenario:                     | Summit School TIA            |      |     |               |    |    |                |      |    |               |    |    |       |
|                               | Movements                    |      |     |               |    |    |                |      |    |               |    |    |       |
|                               | North Approach               |      |     | East Approach |    |    | South Approach |      |    | West Approach |    |    |       |
| Scenario:                     | RT                           | TH   | LT  | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT | Total |
| Existing Conditions           | 6                            | 1476 | 74  | 28            | 0  | 34 | 41             | 971  | 12 | 22            | 5  | 23 | 2692  |
| <b>Approved Project Trips</b> |                              |      |     |               |    |    |                |      |    |               |    |    |       |
| <i>Total Approved Trips</i>   | 0                            | 425  | 56  | 3             | 0  | 27 | 0              | 322  | 0  | 0             | 0  | 0  | 833   |
| Background Conditions         | 6                            | 1901 | 130 | 31            | 0  | 61 | 41             | 1293 | 12 | 22            | 5  | 23 | 3525  |
| <b>Project Trips</b>          | 0                            | 41   | 58  | 0             | 0  | 0  | 96             | 0    | 0  | 0             | 0  | 0  | 195   |
| Existing + Project            | 6                            | 1517 | 132 | 28            | 0  | 34 | 137            | 971  | 12 | 22            | 5  | 23 | 2887  |
| Background + Project          | 6                            | 1942 | 188 | 31            | 0  | 61 | 137            | 1293 | 12 | 22            | 5  | 23 | 3720  |

Summit School TIA Volume Spreadsheet - School PM Peak Hour

|                               |                          |      |     |               |    |     |                |     |     |               |     |     |       |
|-------------------------------|--------------------------|------|-----|---------------|----|-----|----------------|-----|-----|---------------|-----|-----|-------|
| Traffic Node Number:          | 6                        |      |     |               |    |     |                |     |     |               |     |     |       |
| Intersection Name:            | Mathilda Ave & Maude Ave |      |     |               |    |     |                |     |     |               |     |     |       |
| Peak Hour:                    | School PM                |      |     |               |    |     |                |     |     |               |     |     |       |
| Count Date:                   | 11/00/15                 |      |     |               |    |     |                |     |     |               |     |     |       |
| Scenario:                     | Summit School TIA        |      |     |               |    |     |                |     |     |               |     |     |       |
|                               | Movements                |      |     |               |    |     |                |     |     |               |     |     |       |
|                               | North Approach           |      |     | East Approach |    |     | South Approach |     |     | West Approach |     |     |       |
| Scenario:                     | RT                       | TH   | LT  | RT            | TH | LT  | RT             | TH  | LT  | RT            | TH  | LT  | Total |
| Existing Conditions           | 103                      | 1305 | 197 | 177           | 81 | 137 | 83             | 724 | 137 | 275           | 188 | 129 | 3536  |
| <b>Approved Project Trips</b> |                          |      |     |               |    |     |                |     |     |               |     |     |       |
| <i>Total Approved Trips</i>   | 46                       | 479  | 27  | 11            | 17 | 0   | 0              | 162 | 61  | 269           | 29  | 162 | 1263  |
| Background Conditions         | 149                      | 1784 | 224 | 188           | 98 | 137 | 83             | 886 | 198 | 544           | 217 | 291 | 4799  |
| <b>Project Trips</b>          | 0                        | 41   | 0   | 50            | 0  | 0   | 0              | 46  | 0   | 0             | 0   | 0   | 137   |
| Existing + Project            | 103                      | 1346 | 197 | 227           | 81 | 137 | 83             | 770 | 137 | 275           | 188 | 129 | 3673  |
| Background + Project          | 149                      | 1825 | 224 | 238           | 98 | 137 | 83             | 932 | 198 | 544           | 217 | 291 | 4936  |

|                               |                          |      |    |               |    |    |                |      |    |               |    |    |       |
|-------------------------------|--------------------------|------|----|---------------|----|----|----------------|------|----|---------------|----|----|-------|
| Traffic Node Number:          | 7                        |      |    |               |    |    |                |      |    |               |    |    |       |
| Intersection Name:            | Mathilda Ave & Indio Ave |      |    |               |    |    |                |      |    |               |    |    |       |
| Peak Hour:                    | School PM                |      |    |               |    |    |                |      |    |               |    |    |       |
| Count Date:                   | 11/00/15                 |      |    |               |    |    |                |      |    |               |    |    |       |
| Scenario:                     | Summit School TIA        |      |    |               |    |    |                |      |    |               |    |    |       |
|                               | Movements                |      |    |               |    |    |                |      |    |               |    |    |       |
|                               | North Approach           |      |    | East Approach |    |    | South Approach |      |    | West Approach |    |    |       |
| Scenario:                     | RT                       | TH   | LT | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT | Total |
| Existing Conditions           | 55                       | 1707 | 34 | 99            | 0  | 31 | 99             | 791  | 31 | 152           | 0  | 23 | 3022  |
| <b>Approved Project Trips</b> |                          |      |    |               |    |    |                |      |    |               |    |    |       |
| <i>Total Approved Trips</i>   | 57                       | 664  | 5  | 24            | 0  | 7  | 7              | 193  | 7  | 1             | 0  | 0  | 965   |
| Background Conditions         | 112                      | 2371 | 39 | 123           | 0  | 38 | 106            | 984  | 38 | 153           | 0  | 23 | 3987  |
| <b>Project Trips</b>          | -1                       | 41   | 0  | 23            | 0  | 0  | 0              | 23   | 0  | 0             | 0  | 0  | 86    |
| Existing + Project            | 54                       | 1748 | 34 | 122           | 0  | 31 | 99             | 814  | 31 | 152           | 0  | 23 | 3108  |
| Background + Project          | 111                      | 2412 | 39 | 146           | 0  | 38 | 106            | 1007 | 38 | 153           | 0  | 23 | 4073  |

|                               |                               |      |     |               |    |    |                |     |    |               |    |     |       |
|-------------------------------|-------------------------------|------|-----|---------------|----|----|----------------|-----|----|---------------|----|-----|-------|
| Traffic Node Number:          | 8                             |      |     |               |    |    |                |     |    |               |    |     |       |
| Intersection Name:            | Mathilda Ave & California Ave |      |     |               |    |    |                |     |    |               |    |     |       |
| Peak Hour:                    | School PM                     |      |     |               |    |    |                |     |    |               |    |     |       |
| Count Date:                   | 11/00/15                      |      |     |               |    |    |                |     |    |               |    |     |       |
| Scenario:                     | Summit School TIA             |      |     |               |    |    |                |     |    |               |    |     |       |
|                               | Movements                     |      |     |               |    |    |                |     |    |               |    |     |       |
|                               | North Approach                |      |     | East Approach |    |    | South Approach |     |    | West Approach |    |     |       |
| Scenario:                     | RT                            | TH   | LT  | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT  | Total |
| Existing Conditions           | 296                           | 1520 | 114 | 125           | 23 | 29 | 191            | 703 | 68 | 133           | 25 | 60  | 3287  |
| <b>Approved Project Trips</b> |                               |      |     |               |    |    |                |     |    |               |    |     |       |
| <i>Total Approved Trips</i>   | 133                           | 454  | 38  | 11            | 0  | 0  | 11             | 136 | 4  | 36            | 0  | 44  | 867   |
| Background Conditions         | 429                           | 1974 | 152 | 136           | 23 | 29 | 202            | 839 | 72 | 169           | 25 | 104 | 4154  |
| <b>Project Trips</b>          | 16                            | 25   | 0   | 0             | 0  | 0  | 0              | 23  | 0  | 0             | 0  | 0   | 64    |
| Existing + Project            | 312                           | 1545 | 114 | 125           | 23 | 29 | 191            | 726 | 68 | 133           | 25 | 60  | 3351  |
| Background + Project          | 445                           | 1999 | 152 | 136           | 23 | 29 | 202            | 862 | 72 | 169           | 25 | 104 | 4218  |

|                               |                             |    |    |               |    |    |                |    |     |               |     |    |       |
|-------------------------------|-----------------------------|----|----|---------------|----|----|----------------|----|-----|---------------|-----|----|-------|
| Traffic Node Number:          | 9                           |    |    |               |    |    |                |    |     |               |     |    |       |
| Intersection Name:            | San Aleso Ave & Ahwanee Ave |    |    |               |    |    |                |    |     |               |     |    |       |
| Peak Hour:                    | School PM                   |    |    |               |    |    |                |    |     |               |     |    |       |
| Count Date:                   | 05/16/17                    |    |    |               |    |    |                |    |     |               |     |    |       |
| Scenario:                     | Summit School TIA           |    |    |               |    |    |                |    |     |               |     |    |       |
|                               | Movements                   |    |    |               |    |    |                |    |     |               |     |    |       |
|                               | North Approach              |    |    | East Approach |    |    | South Approach |    |     | West Approach |     |    |       |
| Scenario:                     | RT                          | TH | LT | RT            | TH | LT | RT             | TH | LT  | RT            | TH  | LT | Total |
| Existing Conditions           | 0                           | 0  | 0  | 0             | 87 | 29 | 45             | 0  | 8   | 12            | 121 | 0  | 302   |
| <b>Approved Project Trips</b> |                             |    |    |               |    |    |                |    |     |               |     |    |       |
| <i>Total Approved Trips</i>   | 0                           | 0  | 0  | 0             | 1  | 5  | 5              | 0  | 0   | 0             | 7   | 0  | 18    |
| Background Conditions         | 0                           | 0  | 0  | 0             | 88 | 34 | 50             | 0  | 8   | 12            | 128 | 0  | 320   |
| <b>Project Trips</b>          | 0                           | 0  | 0  | 0             | 0  | 0  | 66             | 0  | 95  | 0             | 0   | 0  | 161   |
| Existing + Project            | 0                           | 0  | 0  | 0             | 87 | 29 | 111            | 0  | 103 | 12            | 121 | 0  | 463   |
| Background + Project          | 0                           | 0  | 0  | 0             | 88 | 34 | 116            | 0  | 103 | 12            | 128 | 0  | 481   |

|                               |                            |    |    |               |    |    |                |    |    |               |     |    |       |
|-------------------------------|----------------------------|----|----|---------------|----|----|----------------|----|----|---------------|-----|----|-------|
| Traffic Node Number:          | 10                         |    |    |               |    |    |                |    |    |               |     |    |       |
| Intersection Name:            | Borregas Ave & Ahwanee Ave |    |    |               |    |    |                |    |    |               |     |    |       |
| Peak Hour:                    | School PM                  |    |    |               |    |    |                |    |    |               |     |    |       |
| Count Date:                   | 05/16/17                   |    |    |               |    |    |                |    |    |               |     |    |       |
| Scenario:                     | Summit School TIA          |    |    |               |    |    |                |    |    |               |     |    |       |
|                               | Movements                  |    |    |               |    |    |                |    |    |               |     |    |       |
|                               | North Approach             |    |    | East Approach |    |    | South Approach |    |    | West Approach |     |    |       |
| Scenario:                     | RT                         | TH | LT | RT            | TH | LT | RT             | TH | LT | RT            | TH  | LT | Total |
| Existing Conditions           | 0                          | 0  | 0  | 0             | 67 | 50 | 54             | 0  | 56 | 76            | 74  | 0  | 377   |
| <b>Approved Project Trips</b> |                            |    |    |               |    |    |                |    |    |               |     |    |       |
| <i>Total Approved Trips</i>   | 0                          | 0  | 0  | 0             | 5  | 0  | 0              | 0  | 1  | 5             | 6   | 0  | 17    |
| Background Conditions         | 0                          | 0  | 0  | 0             | 72 | 50 | 54             | 0  | 57 | 81            | 80  | 0  | 394   |
| <b>Project Trips</b>          | 0                          | 0  | 0  | 0             | 0  | 0  | 0              | 0  | 0  | 12            | 54  | 0  | 66    |
| Existing + Project            | 0                          | 0  | 0  | 0             | 67 | 50 | 54             | 0  | 56 | 88            | 128 | 0  | 443   |
| Background + Project          | 0                          | 0  | 0  | 0             | 72 | 50 | 54             | 0  | 57 | 93            | 134 | 0  | 460   |

Summit School TIA Volume Spreadsheet - School PM Peak Hour

|                               |                          |     |    |               |    |    |                |     |    |               |    |    |       |
|-------------------------------|--------------------------|-----|----|---------------|----|----|----------------|-----|----|---------------|----|----|-------|
| Traffic Node Number:          | 11                       |     |    |               |    |    |                |     |    |               |    |    |       |
| Intersection Name:            | Borregas Ave & Duane Ave |     |    |               |    |    |                |     |    |               |    |    |       |
| Peak Hour:                    | School PM                |     |    |               |    |    |                |     |    |               |    |    |       |
| Count Date:                   | 05/16/17                 |     |    |               |    |    |                |     |    |               |    |    |       |
| Scenario:                     | Summit School TIA        |     |    |               |    |    |                |     |    |               |    |    |       |
|                               | Movements                |     |    |               |    |    |                |     |    |               |    |    |       |
|                               | North Approach           |     |    | East Approach |    |    | South Approach |     |    | West Approach |    |    |       |
| Scenario:                     | RT                       | TH  | LT | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT | Total |
| Existing Conditions           | 7                        | 105 | 7  | 11            | 11 | 32 | 14             | 137 | 12 | 7             | 1  | 0  | 344   |
| <b>Approved Project Trips</b> |                          |     |    |               |    |    |                |     |    |               |    |    |       |
| <i>Total Approved Trips</i>   | 0                        | 8   | 0  | 0             | 0  | 0  | 0              | 8   | 0  | 0             | 0  | 0  | 16    |
| Background Conditions         | 7                        | 113 | 7  | 11            | 11 | 32 | 14             | 145 | 12 | 7             | 1  | 0  | 360   |
| <b>Project Trips</b>          | 0                        | 5   | 7  | 0             | 0  | 0  | 0              | 0   | 0  | 0             | 0  | 0  | 12    |
| Existing + Project            | 7                        | 110 | 14 | 11            | 11 | 32 | 14             | 137 | 12 | 7             | 1  | 0  | 356   |
| Background + Project          | 7                        | 118 | 14 | 11            | 11 | 32 | 14             | 145 | 12 | 7             | 1  | 0  | 372   |

|                               |                                 |    |     |               |     |    |                |    |     |               |     |    |       |
|-------------------------------|---------------------------------|----|-----|---------------|-----|----|----------------|----|-----|---------------|-----|----|-------|
| Traffic Node Number:          | 12                              |    |     |               |     |    |                |    |     |               |     |    |       |
| Intersection Name:            | Sunnyvale Ave/Borre & Maude Ave |    |     |               |     |    |                |    |     |               |     |    |       |
| Peak Hour:                    | School PM                       |    |     |               |     |    |                |    |     |               |     |    |       |
| Count Date:                   | 05/16/17                        |    |     |               |     |    |                |    |     |               |     |    |       |
| Scenario:                     | Summit School TIA               |    |     |               |     |    |                |    |     |               |     |    |       |
|                               | Movements                       |    |     |               |     |    |                |    |     |               |     |    |       |
|                               | North Approach                  |    |     | East Approach |     |    | South Approach |    |     | West Approach |     |    |       |
| Scenario:                     | RT                              | TH | LT  | RT            | TH  | LT | RT             | TH | LT  | RT            | TH  | LT | Total |
| Existing Conditions           | 126                             | 0  | 88  | 0             | 211 | 80 | 138            | 0  | 145 | 0             | 312 | 87 | 1187  |
| <b>Approved Project Trips</b> |                                 |    |     |               |     |    |                |    |     |               |     |    |       |
| <i>Total Approved Trips</i>   | 1                               | 0  | 8   | 0             | 39  | 1  | 0              | 0  | 0   | 0             | 50  | 10 | 109   |
| Background Conditions         | 127                             | 0  | 96  | 0             | 250 | 81 | 138            | 0  | 145 | 0             | 362 | 97 | 1296  |
| <b>Project Trips</b>          | 0                               | 0  | 5   | 0             | 45  | 0  | 0              | 0  | 5   | 0             | 0   | 0  | 55    |
| Existing + Project            | 126                             | 0  | 93  | 0             | 256 | 80 | 138            | 0  | 150 | 0             | 312 | 87 | 1242  |
| Background + Project          | 127                             | 0  | 101 | 0             | 295 | 81 | 138            | 0  | 150 | 0             | 362 | 97 | 1351  |

|                               |                         |    |    |               |    |     |                |    |    |               |     |    |       |
|-------------------------------|-------------------------|----|----|---------------|----|-----|----------------|----|----|---------------|-----|----|-------|
| Traffic Node Number:          | 13                      |    |    |               |    |     |                |    |    |               |     |    |       |
| Intersection Name:            | Morse Ave & Ahwanee Ave |    |    |               |    |     |                |    |    |               |     |    |       |
| Peak Hour:                    | School PM               |    |    |               |    |     |                |    |    |               |     |    |       |
| Count Date:                   | 05/16/17                |    |    |               |    |     |                |    |    |               |     |    |       |
| Scenario:                     | Summit School TIA       |    |    |               |    |     |                |    |    |               |     |    |       |
|                               | Movements               |    |    |               |    |     |                |    |    |               |     |    |       |
|                               | North Approach          |    |    | East Approach |    |     | South Approach |    |    | West Approach |     |    |       |
| Scenario:                     | RT                      | TH | LT | RT            | TH | LT  | RT             | TH | LT | RT            | TH  | LT | Total |
| Existing Conditions           | 0                       | 0  | 0  | 0             | 90 | 178 | 139            | 0  | 43 | 48            | 81  | 0  | 579   |
| <b>Approved Project Trips</b> |                         |    |    |               |    |     |                |    |    |               |     |    |       |
| <i>Total Approved Trips</i>   | 0                       | 0  | 0  | 0             | 8  | 0   | 0              | 0  | 0  | 0             | 9   | 0  | 17    |
| Background Conditions         | 0                       | 0  | 0  | 0             | 98 | 178 | 139            | 0  | 43 | 48            | 90  | 0  | 596   |
| <b>Project Trips</b>          | 0                       | 0  | 0  | 0             | 0  | 0   | 0              | 0  | 0  | 2             | 52  | 0  | 54    |
| Existing + Project            | 0                       | 0  | 0  | 0             | 90 | 178 | 139            | 0  | 43 | 50            | 133 | 0  | 633   |
| Background + Project          | 0                       | 0  | 0  | 0             | 98 | 178 | 139            | 0  | 43 | 50            | 142 | 0  | 650   |

|                               |                       |     |    |               |    |    |                |     |    |               |    |    |       |
|-------------------------------|-----------------------|-----|----|---------------|----|----|----------------|-----|----|---------------|----|----|-------|
| Traffic Node Number:          | 14                    |     |    |               |    |    |                |     |    |               |    |    |       |
| Intersection Name:            | Morse Ave & Duane Ave |     |    |               |    |    |                |     |    |               |    |    |       |
| Peak Hour:                    | School PM             |     |    |               |    |    |                |     |    |               |    |    |       |
| Count Date:                   | 05/16/17              |     |    |               |    |    |                |     |    |               |    |    |       |
| Scenario:                     | Summit School TIA     |     |    |               |    |    |                |     |    |               |    |    |       |
|                               | Movements             |     |    |               |    |    |                |     |    |               |    |    |       |
|                               | North Approach        |     |    | East Approach |    |    | South Approach |     |    | West Approach |    |    |       |
| Scenario:                     | RT                    | TH  | LT | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT | Total |
| Existing Conditions           | 17                    | 135 | 76 | 45            | 57 | 25 | 22             | 124 | 6  | 4             | 39 | 7  | 557   |
| <b>Approved Project Trips</b> |                       |     |    |               |    |    |                |     |    |               |    |    |       |
| <i>Total Approved Trips</i>   | 0                     | 12  | 0  | 0             | 9  | 0  | 0              | 13  | 0  | 0             | 2  | 0  | 36    |
| Background Conditions         | 17                    | 147 | 76 | 45            | 66 | 25 | 22             | 137 | 6  | 4             | 41 | 7  | 593   |
| <b>Project Trips</b>          | 0                     | 2   | 0  | 0             | 0  | 2  | 0              | 0   | 0  | 0             | 7  | 0  | 11    |
| Existing + Project            | 17                    | 137 | 76 | 45            | 57 | 27 | 22             | 124 | 6  | 4             | 46 | 7  | 568   |
| Background + Project          | 17                    | 149 | 76 | 45            | 66 | 27 | 22             | 137 | 6  | 4             | 48 | 7  | 604   |

|                               |                       |    |    |               |     |    |                |    |    |               |     |    |       |
|-------------------------------|-----------------------|----|----|---------------|-----|----|----------------|----|----|---------------|-----|----|-------|
| Traffic Node Number:          | 15                    |    |    |               |     |    |                |    |    |               |     |    |       |
| Intersection Name:            | Morse Ave & Maude Ave |    |    |               |     |    |                |    |    |               |     |    |       |
| Peak Hour:                    | School PM             |    |    |               |     |    |                |    |    |               |     |    |       |
| Count Date:                   | 05/16/17              |    |    |               |     |    |                |    |    |               |     |    |       |
| Scenario:                     | Summit School TIA     |    |    |               |     |    |                |    |    |               |     |    |       |
|                               | Movements             |    |    |               |     |    |                |    |    |               |     |    |       |
|                               | North Approach        |    |    | East Approach |     |    | South Approach |    |    | West Approach |     |    |       |
| Scenario:                     | RT                    | TH | LT | RT            | TH  | LT | RT             | TH | LT | RT            | TH  | LT | Total |
| Existing Conditions           | 108                   | 13 | 70 | 55            | 170 | 8  | 12             | 5  | 12 | 8             | 302 | 84 | 847   |
| <b>Approved Project Trips</b> |                       |    |    |               |     |    |                |    |    |               |     |    |       |
| <i>Total Approved Trips</i>   | 9                     | 0  | 0  | 0             | 30  | 0  | 0              | 0  | 0  | 0             | 44  | 10 | 93    |
| Background Conditions         | 117                   | 13 | 70 | 55            | 200 | 8  | 12             | 5  | 12 | 8             | 346 | 94 | 940   |
| <b>Project Trips</b>          | 3                     | 0  | 0  | 0             | 42  | 0  | 0              | 0  | 0  | 0             | 0   | 0  | 45    |
| Existing + Project            | 111                   | 13 | 70 | 55            | 212 | 8  | 12             | 5  | 12 | 8             | 302 | 84 | 892   |
| Background + Project          | 120                   | 13 | 70 | 55            | 242 | 8  | 12             | 5  | 12 | 8             | 346 | 94 | 985   |



Summit School TIA Volume Spreadsheet - School PM Peak Hour

|                               |                            |     |    |               |    |    |                |     |     |               |    |    |       |
|-------------------------------|----------------------------|-----|----|---------------|----|----|----------------|-----|-----|---------------|----|----|-------|
| Traffic Node Number:          | 16                         |     |    |               |    |    |                |     |     |               |    |    |       |
| Intersection Name:            | Fair Oaks Ave & Weddell Dr |     |    |               |    |    |                |     |     |               |    |    |       |
| Peak Hour:                    | School PM                  |     |    |               |    |    |                |     |     |               |    |    |       |
| Count Date:                   | 04/04/17                   |     |    |               |    |    |                |     |     |               |    |    |       |
| Scenario:                     | Summit School TIA          |     |    |               |    |    |                |     |     |               |    |    |       |
|                               | Movements                  |     |    |               |    |    |                |     |     |               |    |    |       |
|                               | North Approach             |     |    | East Approach |    |    | South Approach |     |     | West Approach |    |    |       |
| Scenario:                     | RT                         | TH  | LT | RT            | TH | LT | RT             | TH  | LT  | RT            | TH | LT | Total |
| Existing Conditions           | 12                         | 581 | 19 | 13            | 2  | 49 | 60             | 526 | 150 | 187           | 2  | 24 | 1625  |
| <b>Approved Project Trips</b> |                            |     |    |               |    |    |                |     |     |               |    |    |       |
| <i>Total Approved Trips</i>   | 21                         | 218 | 15 | 3             | 4  | 2  | 34             | 149 | 79  | -2            | 2  | 4  | 529   |
| Background Conditions         | 33                         | 799 | 34 | 16            | 6  | 51 | 94             | 675 | 229 | 185           | 4  | 28 | 2154  |
| <b>Project Trips</b>          | 0                          | 9   | 0  | 0             | 0  | 0  | 0              | 10  | 3   | 0             | 0  | 0  | 22    |
| Existing + Project            | 12                         | 590 | 19 | 13            | 2  | 49 | 60             | 536 | 153 | 187           | 2  | 24 | 1647  |
| Background + Project          | 33                         | 808 | 34 | 16            | 6  | 51 | 94             | 685 | 232 | 185           | 4  | 28 | 2176  |

|                               |                                 |     |    |               |    |     |                |     |     |               |    |    |       |
|-------------------------------|---------------------------------|-----|----|---------------|----|-----|----------------|-----|-----|---------------|----|----|-------|
| Traffic Node Number:          | 17                              |     |    |               |    |     |                |     |     |               |    |    |       |
| Intersection Name:            | Fair Oaks Ave & US 101 NB Ramps |     |    |               |    |     |                |     |     |               |    |    |       |
| Peak Hour:                    | School PM                       |     |    |               |    |     |                |     |     |               |    |    |       |
| Count Date:                   | 04/04/17                        |     |    |               |    |     |                |     |     |               |    |    |       |
| Scenario:                     | Summit School TIA               |     |    |               |    |     |                |     |     |               |    |    |       |
|                               | Movements                       |     |    |               |    |     |                |     |     |               |    |    |       |
|                               | North Approach                  |     |    | East Approach |    |     | South Approach |     |     | West Approach |    |    |       |
| Scenario:                     | RT                              | TH  | LT | RT            | TH | LT  | RT             | TH  | LT  | RT            | TH | LT | Total |
| Existing Conditions           | 126                             | 699 | 0  | 153           | 0  | 429 | 0              | 557 | 337 | 0             | 0  | 0  | 2301  |
| <b>Approved Project Trips</b> |                                 |     |    |               |    |     |                |     |     |               |    |    |       |
| <i>Total Approved Trips</i>   | -11                             | 239 | 0  | 95            | 6  | 27  | 0              | 187 | 62  | 0             | 0  | 0  | 605   |
| Background Conditions         | 115                             | 938 | 0  | 248           | 6  | 456 | 0              | 744 | 399 | 0             | 0  | 0  | 2906  |
| <b>Project Trips</b>          | 0                               | 9   | 0  | 0             | 0  | 0   | 0              | 12  | 0   | 0             | 0  | 0  | 21    |
| Existing + Project            | 126                             | 708 | 0  | 153           | 0  | 429 | 0              | 569 | 337 | 0             | 0  | 0  | 2322  |
| Background + Project          | 115                             | 947 | 0  | 248           | 6  | 456 | 0              | 756 | 399 | 0             | 0  | 0  | 2927  |

|                               |                             |      |    |               |    |    |                |      |    |               |    |     |       |
|-------------------------------|-----------------------------|------|----|---------------|----|----|----------------|------|----|---------------|----|-----|-------|
| Traffic Node Number:          | 18                          |      |    |               |    |    |                |      |    |               |    |     |       |
| Intersection Name:            | Fair Oaks Ave & Ahwanee Ave |      |    |               |    |    |                |      |    |               |    |     |       |
| Peak Hour:                    | School PM                   |      |    |               |    |    |                |      |    |               |    |     |       |
| Count Date:                   | 04/04/17                    |      |    |               |    |    |                |      |    |               |    |     |       |
| Scenario:                     | Summit School TIA           |      |    |               |    |    |                |      |    |               |    |     |       |
|                               | Movements                   |      |    |               |    |    |                |      |    |               |    |     |       |
|                               | North Approach              |      |    | East Approach |    |    | South Approach |      |    | West Approach |    |     |       |
| Scenario:                     | RT                          | TH   | LT | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT  | Total |
| Existing Conditions           | 210                         | 1088 | 50 | 34            | 12 | 10 | 20             | 826  | 49 | 76            | 21 | 150 | 2546  |
| <b>Approved Project Trips</b> |                             |      |    |               |    |    |                |      |    |               |    |     |       |
| <i>Total Approved Trips</i>   | 8                           | 235  | 3  | 4             | 5  | 1  | -3             | 179  | 2  | 4             | 5  | 10  | 453   |
| Background Conditions         | 218                         | 1323 | 53 | 38            | 17 | 11 | 17             | 1005 | 51 | 80            | 26 | 160 | 2999  |
| <b>Project Trips</b>          | 0                           | 9    | 0  | 0             | 0  | 5  | 0              | 0    | 0  | 34            | 5  | 12  | 65    |
| Existing + Project            | 210                         | 1097 | 50 | 34            | 12 | 15 | 20             | 826  | 49 | 110           | 26 | 162 | 2611  |
| Background + Project          | 218                         | 1332 | 53 | 38            | 17 | 16 | 17             | 1005 | 51 | 114           | 31 | 172 | 3064  |

|                               |                           |      |     |               |    |     |                |     |    |               |    |    |       |
|-------------------------------|---------------------------|------|-----|---------------|----|-----|----------------|-----|----|---------------|----|----|-------|
| Traffic Node Number:          | 19                        |      |     |               |    |     |                |     |    |               |    |    |       |
| Intersection Name:            | Fair Oaks Ave & Duane Ave |      |     |               |    |     |                |     |    |               |    |    |       |
| Peak Hour:                    | School PM                 |      |     |               |    |     |                |     |    |               |    |    |       |
| Count Date:                   | 04/04/17                  |      |     |               |    |     |                |     |    |               |    |    |       |
| Scenario:                     | Summit School TIA         |      |     |               |    |     |                |     |    |               |    |    |       |
|                               | Movements                 |      |     |               |    |     |                |     |    |               |    |    |       |
|                               | North Approach            |      |     | East Approach |    |     | South Approach |     |    | West Approach |    |    |       |
| Scenario:                     | RT                        | TH   | LT  | RT            | TH | LT  | RT             | TH  | LT | RT            | TH | LT | Total |
| Existing Conditions           | 64                        | 840  | 131 | 114           | 59 | 206 | 155            | 718 | 15 | 32            | 87 | 47 | 2468  |
| <b>Approved Project Trips</b> |                           |      |     |               |    |     |                |     |    |               |    |    |       |
| <i>Total Approved Trips</i>   | 14                        | 223  | 19  | -9            | 5  | 17  | 18             | 178 | 6  | 3             | 3  | 2  | 479   |
| Background Conditions         | 78                        | 1063 | 150 | 105           | 64 | 223 | 173            | 896 | 21 | 35            | 90 | 49 | 2947  |
| <b>Project Trips</b>          | 0                         | 48   | 0   | 0             | 0  | 5   | 0              | 0   | 0  | 0             | 5  | 0  | 58    |
| Existing + Project            | 64                        | 888  | 131 | 114           | 59 | 211 | 155            | 718 | 15 | 32            | 92 | 47 | 2526  |
| Background + Project          | 78                        | 1111 | 150 | 105           | 64 | 228 | 173            | 896 | 21 | 35            | 95 | 49 | 3005  |

|                               |                          |     |    |               |    |    |                |     |    |               |    |     |       |
|-------------------------------|--------------------------|-----|----|---------------|----|----|----------------|-----|----|---------------|----|-----|-------|
| Traffic Node Number:          | 20                       |     |    |               |    |    |                |     |    |               |    |     |       |
| Intersection Name:            | Fair Oaks Ave & Wolfe Rd |     |    |               |    |    |                |     |    |               |    |     |       |
| Peak Hour:                    | School PM                |     |    |               |    |    |                |     |    |               |    |     |       |
| Count Date:                   | 04/04/17                 |     |    |               |    |    |                |     |    |               |    |     |       |
| Scenario:                     | Summit School TIA        |     |    |               |    |    |                |     |    |               |    |     |       |
|                               | Movements                |     |    |               |    |    |                |     |    |               |    |     |       |
|                               | North Approach           |     |    | East Approach |    |    | South Approach |     |    | West Approach |    |     |       |
| Scenario:                     | RT                       | TH  | LT | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT  | Total |
| Existing Conditions           | 710                      | 426 | 0  | 0             | 0  | 0  | 0              | 355 | 0  | 7             | 0  | 544 | 2042  |
| <b>Approved Project Trips</b> |                          |     |    |               |    |    |                |     |    |               |    |     |       |
| <i>Total Approved Trips</i>   | 111                      | 130 | 0  | 0             | 0  | 0  | 0              | 104 | 0  | 3             | 0  | 91  | 439   |
| Background Conditions         | 821                      | 556 | 0  | 0             | 0  | 0  | 0              | 459 | 0  | 10            | 0  | 635 | 2481  |
| <b>Project Trips</b>          | 36                       | 16  | 0  | 0             | 0  | 0  | 0              | 0   | 0  | 0             | 0  | 0   | 52    |
| Existing + Project            | 746                      | 442 | 0  | 0             | 0  | 0  | 0              | 355 | 0  | 7             | 0  | 544 | 2094  |
| Background + Project          | 857                      | 572 | 0  | 0             | 0  | 0  | 0              | 459 | 0  | 10            | 0  | 635 | 2533  |

Summit School TIA Volume Spreadsheet - School PM Peak Hour

| Scenario: Existing Conditions    |                |     |    |               |    |    |                |     |    |               |     |    |       |
|----------------------------------|----------------|-----|----|---------------|----|----|----------------|-----|----|---------------|-----|----|-------|
| Movements                        |                |     |    |               |    |    |                |     |    |               |     |    |       |
| Scenario:                        | North Approach |     |    | East Approach |    |    | South Approach |     |    | West Approach |     |    | Total |
|                                  | RT             | TH  | LT | RT            | TH | LT | RT             | TH  | LT | RT            | TH  | LT |       |
| Existing Conditions              | 75             | 639 | 3  | 5             | 76 | 12 | 11             | 493 | 68 | 112           | 127 | 70 | 1691  |
| Scenario: Approved Project Trips |                |     |    |               |    |    |                |     |    |               |     |    |       |
| <i>Total Approved Trips</i>      |                |     |    |               |    |    |                |     |    |               |     |    |       |
| Approved Project Trips           | 5              | 122 | 7  | 6             | 5  | 0  | 4              | 99  | -1 | 5             | 39  | 16 | 307   |
| Scenario: Background Conditions  |                |     |    |               |    |    |                |     |    |               |     |    |       |
| Background Conditions            | 80             | 761 | 10 | 11            | 81 | 12 | 15             | 592 | 67 | 117           | 166 | 86 | 1998  |
| Scenario: Project Trips          |                |     |    |               |    |    |                |     |    |               |     |    |       |
| Project Trips                    | 19             | 18  | 0  | 0             | 8  | 0  | 0              | 0   | 16 | 0             | 0   | 0  | 61    |
| Scenario: Existing + Project     |                |     |    |               |    |    |                |     |    |               |     |    |       |
| Existing + Project               | 94             | 657 | 3  | 5             | 84 | 12 | 11             | 493 | 84 | 112           | 127 | 70 | 1752  |
| Scenario: Background + Project   |                |     |    |               |    |    |                |     |    |               |     |    |       |
| Background + Project             | 99             | 779 | 10 | 11            | 89 | 12 | 15             | 592 | 83 | 117           | 166 | 86 | 2059  |

| Scenario: Existing Conditions    |                |     |    |               |    |    |                |     |     |               |    |    |       |
|----------------------------------|----------------|-----|----|---------------|----|----|----------------|-----|-----|---------------|----|----|-------|
| Movements                        |                |     |    |               |    |    |                |     |     |               |    |    |       |
| Scenario:                        | North Approach |     |    | East Approach |    |    | South Approach |     |     | West Approach |    |    | Total |
|                                  | RT             | TH  | LT | RT            | TH | LT | RT             | TH  | LT  | RT            | TH | LT |       |
| Existing Conditions              | 9              | 457 | 10 | 3             | 0  | 6  | 8              | 279 | 94  | 139           | 7  | 5  | 1017  |
| Scenario: Approved Project Trips |                |     |    |               |    |    |                |     |     |               |    |    |       |
| <i>Total Approved Trips</i>      |                |     |    |               |    |    |                |     |     |               |    |    |       |
| Approved Project Trips           | 0              | 98  | 0  | 0             | 0  | 0  | 0              | 92  | 1   | 29            | 0  | 0  | 220   |
| Scenario: Background Conditions  |                |     |    |               |    |    |                |     |     |               |    |    |       |
| Background Conditions            | 9              | 555 | 10 | 3             | 0  | 6  | 8              | 371 | 95  | 168           | 7  | 5  | 1237  |
| Scenario: Project Trips          |                |     |    |               |    |    |                |     |     |               |    |    |       |
| Project Trips                    | 0              | 16  | 0  | 0             | 0  | 0  | 0              | 0   | 8   | 0             | 0  | 0  | 24    |
| Scenario: Existing + Project     |                |     |    |               |    |    |                |     |     |               |    |    |       |
| Existing + Project               | 9              | 473 | 10 | 3             | 0  | 6  | 8              | 279 | 102 | 139           | 7  | 5  | 1041  |
| Scenario: Background + Project   |                |     |    |               |    |    |                |     |     |               |    |    |       |
| Background + Project             | 9              | 571 | 10 | 3             | 0  | 6  | 8              | 371 | 103 | 168           | 7  | 5  | 1261  |

| Scenario: Existing Conditions    |                |     |    |               |     |     |                |     |    |               |     |    |       |
|----------------------------------|----------------|-----|----|---------------|-----|-----|----------------|-----|----|---------------|-----|----|-------|
| Movements                        |                |     |    |               |     |     |                |     |    |               |     |    |       |
| Scenario:                        | North Approach |     |    | East Approach |     |     | South Approach |     |    | West Approach |     |    | Total |
|                                  | RT             | TH  | LT | RT            | TH  | LT  | RT             | TH  | LT | RT            | TH  | LT |       |
| Existing Conditions              | 20             | 424 | 93 | 86            | 173 | 200 | 196            | 361 | 16 | 40            | 186 | 44 | 1839  |
| Scenario: Approved Project Trips |                |     |    |               |     |     |                |     |    |               |     |    |       |
| <i>Total Approved Trips</i>      |                |     |    |               |     |     |                |     |    |               |     |    |       |
| Approved Project Trips           | 0              | 101 | 4  | 15            | 9   | 23  | 12             | 101 | 41 | 1             | 3   | 0  | 310   |
| Scenario: Background Conditions  |                |     |    |               |     |     |                |     |    |               |     |    |       |
| Background Conditions            | 20             | 525 | 97 | 101           | 182 | 223 | 208            | 462 | 57 | 41            | 189 | 44 | 2149  |
| Scenario: Project Trips          |                |     |    |               |     |     |                |     |    |               |     |    |       |
| Project Trips                    | 0              | 16  | 0  | 0             | 0   | 0   | 0              | 8   | 0  | 0             | 0   | 0  | 24    |
| Scenario: Existing + Project     |                |     |    |               |     |     |                |     |    |               |     |    |       |
| Existing + Project               | 20             | 440 | 93 | 86            | 173 | 200 | 196            | 369 | 16 | 40            | 186 | 44 | 1863  |
| Scenario: Background + Project   |                |     |    |               |     |     |                |     |    |               |     |    |       |
| Background + Project             | 20             | 541 | 97 | 101           | 182 | 223 | 208            | 470 | 57 | 41            | 189 | 44 | 2173  |

| Scenario: Existing Conditions    |                |     |     |               |    |     |                |     |     |               |    |    |       |
|----------------------------------|----------------|-----|-----|---------------|----|-----|----------------|-----|-----|---------------|----|----|-------|
| Movements                        |                |     |     |               |    |     |                |     |     |               |    |    |       |
| Scenario:                        | North Approach |     |     | East Approach |    |     | South Approach |     |     | West Approach |    |    | Total |
|                                  | RT             | TH  | LT  | RT            | TH | LT  | RT             | TH  | LT  | RT            | TH | LT |       |
| Existing Conditions              | 106            | 565 | 96  | 40            | 0  | 140 | 117            | 487 | 82  | 216           | 1  | 78 | 1928  |
| Scenario: Approved Project Trips |                |     |     |               |    |     |                |     |     |               |    |    |       |
| <i>Total Approved Trips</i>      |                |     |     |               |    |     |                |     |     |               |    |    |       |
| Approved Project Trips           | 7              | 103 | 32  | 3             | 0  | 18  | 0              | 85  | 20  | 18            | 0  | 9  | 295   |
| Scenario: Background Conditions  |                |     |     |               |    |     |                |     |     |               |    |    |       |
| Background Conditions            | 113            | 668 | 128 | 43            | 0  | 158 | 117            | 572 | 102 | 234           | 1  | 87 | 2223  |
| Scenario: Project Trips          |                |     |     |               |    |     |                |     |     |               |    |    |       |
| Project Trips                    | 0              | 8   | 8   | 0             | 0  | 0   | 0              | 8   | 8   | 8             | 0  | 0  | 40    |
| Scenario: Existing + Project     |                |     |     |               |    |     |                |     |     |               |    |    |       |
| Existing + Project               | 106            | 573 | 104 | 40            | 0  | 140 | 117            | 495 | 90  | 224           | 1  | 78 | 1968  |
| Scenario: Background + Project   |                |     |     |               |    |     |                |     |     |               |    |    |       |
| Background + Project             | 113            | 676 | 136 | 43            | 0  | 158 | 117            | 580 | 110 | 242           | 1  | 87 | 2263  |

## Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 1  
 Intersection Name: Mathilda Ave & SR 237 WB Ramps  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 11/00/15  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |     |                |     |    |               |    |    | Total |
|---------------------------------|----------------|------|----|---------------|----|-----|----------------|-----|----|---------------|----|----|-------|
|                                 | North Approach |      |    | East Approach |    |     | South Approach |     |    | West Approach |    |    |       |
|                                 | RT             | TH   | LT | RT            | TH | LT  | RT             | TH  | LT | RT            | TH | LT |       |
| Existing Conditions             | 558            | 1610 | 0  | 39            | 31 | 541 | 0              | 524 | 86 | 0             | 0  | 0  | 3389  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 1080 Stewart Dr                 |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 1100 N. Mathilda Ave            | 14             | 34   |    | 11            |    |     | 44             |     |    |               |    |    | 103   |
| 1235 Bordeaux Dr                | 12             | 24   |    | 17            |    |     | 56             |     |    |               |    |    | 109   |
| 696 N. Mathilda Ave             |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 725 S. Fair Oaks Ave            |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 750 Lakeway Dr                  |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 767 N. Mathilda Ave             |                | 7    |    |               |    | 10  | 7              | 11  |    |               |    |    | 35    |
| 830 E. El Camino Real           |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 861 E. El Camino Real           |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 1050 Kifer Rd                   |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 1081 Innovation Way             | 161            | 312  |    | 16            |    |     | 91             |     |    |               |    |    | 580   |
| 1111 Lockheed Martin Way        | 30             | 94   |    | 11            |    |     | 40             |     |    |               |    |    | 175   |
| 1152 Bordeaux Dr                | 62             | 214  |    | 8             |    |     | 35             |     |    |               |    |    | 319   |
| 1184 N. Mathilda Ave            | 33             | 97   |    | 3             |    |     | 24             |     |    |               |    |    | 157   |
| 1212 Bordeaux Dr                | 41             | 64   |    | 4             |    |     | 20             |     |    |               |    |    | 129   |
| 1221 Crossman Ave               | 12             | 25   |    |               |    |     | 18             |     |    |               |    |    | 55    |
| 215 Moffett Park Dr             | 70             | 104  |    | 5             |    |     | 44             |     |    |               |    |    | 223   |
| 221 N. Mathilda Ave             |                |      |    |               |    | 3   |                |     |    |               |    |    | 3     |
| 280 Santa Ana Ct                |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 495 E. Java Dr & 549 Baltic Way |                | 15   |    |               |    |     | 11             |     |    |               |    |    | 26    |
| 520 Almanor Ave                 |                |      |    |               |    | 3   |                |     |    |               |    |    | 3     |
| 589 W. Java Dr                  | 97             | 65   |    |               |    |     | 28             |     |    |               |    |    | 190   |
| 615 N. Mathilda Ave             |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 684 W. Maude Ave                |                |      |    |               |    | 6   |                |     |    |               |    |    | 6     |
| 1120 Kifer Rd                   |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 2502 Town Center Ln             |                | 23   |    |               |    | 14  | 25             |     |    |               |    |    | 62    |
| 675 Almanor Avenue              |                |      |    |               |    | 3   |                |     |    |               |    |    | 3     |
| 1111, 1139 Karlstad Dr          |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 423 E. Maude Ave                |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 460 Persian Dr                  |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 520-550, 610 Weddell Dr         |                | 8    |    |               |    |     | -1             |     |    |               |    |    | 7     |
| 625 E. Taylor Ave               |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 680-698 E. Taylor Ave           |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 915 De Guigne Dr                |                |      |    |               |    |     |                |     |    |               |    |    |       |
| City Place (Phase 1-3)          |                |      |    |               |    |     |                |     |    |               |    |    |       |
| 840 E. El Camino Real           |                |      |    |               |    |     |                |     |    |               |    |    |       |
| Irvine Company - Pathline Park  |                |      |    |               |    | 13  |                |     |    |               |    |    | 13    |
| <i>Total Approved Trips</i>     | 532            | 1086 | 0  | 75            | 0  | 52  | 0              | 442 | 11 | 0             | 0  | 0  | 2198  |
| Background Conditions           | 1090           | 2696 | 0  | 114           | 31 | 593 | 0              | 966 | 97 | 0             | 0  | 0  | 5587  |
| <b>Project Trips</b>            | 0              | 0    | 0  | 0             | 0  | 2   | 0              | 0   | 0  | 0             | 0  | 0  | 2     |
| Existing + Project              | 558            | 1610 | 0  | 39            | 31 | 543 | 0              | 524 | 86 | 0             | 0  | 0  | 3391  |
| Background + Project            | 1090           | 2696 | 0  | 114           | 31 | 595 | 0              | 966 | 97 | 0             | 0  | 0  | 5589  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 2  
 Intersection Name: Mathilda Ave & SR 237 EB Ramps  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 11/00/15  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |     |               |    |    |                |     |    |               |    |     | Total |
|---------------------------------|----------------|------|-----|---------------|----|----|----------------|-----|----|---------------|----|-----|-------|
|                                 | North Approach |      |     | East Approach |    |    | South Approach |     |    | West Approach |    |     |       |
|                                 | RT             | TH   | LT  | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT  |       |
| Existing Conditions             | 0              | 1804 | 347 | 0             | 0  | 0  | 641            | 480 | 0  | 135           | 0  | 130 | 3537  |
| <b>Approved Project Trips</b>   |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 1080 Stewart Dr                 |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 1100 N. Mathilda Ave            |                | 23   | 11  |               |    |    |                | 21  |    |               |    | 23  | 78    |
| 1235 Bordeaux Dr                |                | 12   | 12  |               |    |    |                | 22  |    |               |    | 34  | 80    |
| 696 N. Mathilda Ave             |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 725 S. Fair Oaks Ave            |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 750 Lakeway Dr                  |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 767 N. Mathilda Ave             |                | 16   |     |               |    |    | 11             | 18  |    | 10            |    |     | 55    |
| 830 E. El Camino Real           |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 861 E. El Camino Real           |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 1050 Kifer Rd                   |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 1081 Innovation Way             |                | 241  | 71  |               |    |    |                | 55  |    |               |    | 36  | 403   |
| 1111 Lockheed Martin Way        |                | 64   | 30  |               |    |    |                | 25  |    |               |    | 15  | 134   |
| 1152 Bordeaux Dr                |                | 152  | 62  |               |    |    |                | 19  |    |               |    | 16  | 249   |
| 1184 N. Mathilda Ave            |                | 76   | 21  |               |    |    |                | 14  |    |               |    | 10  | 121   |
| 1212 Bordeaux Dr                |                | 45   | 19  |               |    |    |                | 12  |    |               |    | 8   | 84    |
| 1221 Crossman Ave               |                | 25   |     |               |    |    |                | 4   |    |               |    | 14  | 43    |
| 215 Moffett Park Dr             |                | 87   | 17  |               |    |    |                | 24  |    |               |    | 20  | 148   |
| 221 N. Mathilda Ave             |                | 3    |     |               |    |    | 18             |     |    |               |    |     | 21    |
| 280 Santa Ana Ct                |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 495 E. Java Dr & 549 Baltic Way |                | 15   |     |               |    |    |                | 3   |    |               |    | 8   | 26    |
| 520 Almanor Ave                 |                | 3    |     |               |    |    | 24             |     |    |               |    |     | 27    |
| 589 W. Java Dr                  |                | 65   |     |               |    |    |                | 11  |    |               |    | 17  | 93    |
| 615 N. Mathilda Ave             |                |      |     |               |    |    | 31             |     |    |               |    |     | 31    |
| 684 W. Maude Ave                |                | 6    |     |               |    |    | 32             |     |    |               |    |     | 38    |
| 1120 Kifer Rd                   |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 2502 Town Center Ln             |                | 37   |     |               |    |    | 10             | 25  |    |               |    |     | 72    |
| 675 Almanor Avenue              |                | 3    |     |               |    |    | 14             |     |    |               |    |     | 17    |
| 1111, 1139 Karlstad Dr          |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 423 E. Maude Ave                |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 460 Persian Dr                  |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 520-550, 610 Weddell Dr         |                | 8    |     |               |    |    |                | -1  |    |               |    |     | 7     |
| 625 E. Taylor Ave               |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 680-698 E. Taylor Ave           |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 701-755 E. Evelyn Ave           |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 915 De Guigne Dr                |                |      |     |               |    |    |                |     |    |               |    |     |       |
| City Place (Phase 1-3)          |                |      |     |               |    |    |                |     |    |               |    |     |       |
| 840 E. El Camino Real           |                |      |     |               |    |    |                |     |    |               |    |     |       |
| Irvine Company - Pathline Park  |                | 13   |     |               |    |    | 69             |     |    |               |    |     | 82    |
| <i>Total Approved Trips</i>     | 0              | 894  | 243 | 0             | 0  | 0  | 209            | 252 | 0  | 10            | 0  | 201 | 1809  |
| Background Conditions           | 0              | 2698 | 590 | 0             | 0  | 0  | 850            | 732 | 0  | 145           | 0  | 331 | 5346  |
| <b>Project Trips</b>            | 0              | 2    | 0   | 0             | 0  | 0  | 4              | 0   | 0  | 0             | 0  | 0   | 6     |
| Existing + Project              | 0              | 1806 | 347 | 0             | 0  | 0  | 645            | 480 | 0  | 135           | 0  | 130 | 3543  |
| Background + Project            | 0              | 2700 | 590 | 0             | 0  | 0  | 854            | 732 | 0  | 145           | 0  | 331 | 5352  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 3  
 Intersection Name: Mathilda Ave & Ross Dr  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 11/00/15  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |     |               |    |     |                |      |    |               |    |    | Total |
|---------------------------------|----------------|------|-----|---------------|----|-----|----------------|------|----|---------------|----|----|-------|
|                                 | North Approach |      |     | East Approach |    |     | South Approach |      |    | West Approach |    |    |       |
|                                 | RT             | TH   | LT  | RT            | TH | LT  | RT             | TH   | LT | RT            | TH | LT |       |
| Existing Conditions             | 54             | 1695 | 190 | 71            | 4  | 125 | 323            | 980  | 59 | 129           | 39 | 70 | 3739  |
| <b>Approved Project Trips</b>   |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 1080 Stewart Dr                 |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 1100 N. Mathilda Ave            |                | 23   |     |               |    |     |                | 21   |    |               |    |    | 44    |
| 1235 Bordeaux Dr                |                | 12   |     |               |    |     |                | 22   |    |               |    |    | 34    |
| 696 N. Mathilda Ave             |                |      |     |               |    | 9   | 8              |      |    |               |    |    | 17    |
| 725 S. Fair Oaks Ave            |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 750 Lakeway Dr                  |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 767 N. Mathilda Ave             |                | 26   |     |               |    |     |                | 29   |    |               |    |    | 55    |
| 830 E. El Camino Real           |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 861 E. El Camino Real           |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 1050 Kifer Rd                   |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 1081 Innovation Way             |                | 241  |     |               |    |     |                | 55   |    |               |    |    | 296   |
| 1111 Lockheed Martin Way        |                | 64   |     |               | 1  |     |                | 24   |    |               |    |    | 89    |
| 1152 Bordeaux Dr                |                | 144  | 8   |               | 1  |     |                | 18   |    |               |    |    | 171   |
| 1184 N. Mathilda Ave            |                | 76   |     |               |    |     |                | 14   |    |               |    |    | 90    |
| 1212 Bordeaux Dr                |                | 45   |     |               |    |     |                | 12   |    |               |    |    | 57    |
| 1221 Crossman Ave               |                | 24   | 1   |               |    |     |                | 4    |    |               |    |    | 29    |
| 215 Moffett Park Dr             |                | 82   | 5   |               | 1  |     |                | 23   |    |               |    |    | 111   |
| 221 N. Mathilda Ave             |                | 3    |     |               |    |     |                | 18   |    |               |    |    | 21    |
| 280 Santa Ana Ct                |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 495 E. Java Dr & 549 Baltic Way |                | 15   |     |               |    |     |                | 3    |    |               |    |    | 18    |
| 520 Almanor Ave                 |                | 3    |     |               |    |     |                | 24   |    |               |    |    | 27    |
| 589 W. Java Dr                  |                | 65   |     |               |    |     |                | 11   |    |               |    |    | 76    |
| 615 N. Mathilda Ave             |                |      |     |               |    |     |                | 31   |    |               |    |    | 31    |
| 684 W. Maude Ave                |                | 6    |     |               |    |     |                | 32   |    |               |    |    | 38    |
| 1120 Kifer Rd                   |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 2502 Town Center Ln             |                | 37   |     |               |    |     |                | 35   |    |               |    |    | 72    |
| 675 Almanor Avenue              |                | 3    |     |               |    |     |                | 14   |    |               |    |    | 17    |
| 1111, 1139 Karlstad Dr          |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 423 E. Maude Ave                |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 460 Persian Dr                  |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 520-550, 610 Weddell Dr         |                |      | 8   |               | -1 |     |                |      |    |               |    |    | 7     |
| 625 E. Taylor Ave               |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 680-698 E. Taylor Ave           |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 915 De Guigne Dr                |                |      |     |               |    |     |                |      |    |               |    |    |       |
| City Place (Phase 1-3)          |                |      |     |               |    |     |                |      |    |               |    |    |       |
| 840 E. El Camino Real           |                |      |     |               |    |     |                |      |    |               |    |    |       |
| Irvine Company - Pathline Park  |                | 13   |     |               |    |     |                | 69   |    |               |    |    | 82    |
| <i>Total Approved Trips</i>     | 0              | 882  | 22  | 2             | 0  | 9   | 8              | 459  | 0  | 0             | 0  | 0  | 1382  |
| Background Conditions           | 54             | 2577 | 212 | 73            | 4  | 134 | 331            | 1439 | 59 | 129           | 39 | 70 | 5121  |
| <b>Project Trips</b>            | 0              | 2    | 0   | 0             | 0  | 2   | 1              | 4    | 0  | 0             | 0  | 0  | 9     |
| Existing + Project              | 54             | 1697 | 190 | 71            | 4  | 127 | 324            | 984  | 59 | 129           | 39 | 70 | 3748  |
| Background + Project            | 54             | 2579 | 212 | 73            | 4  | 136 | 332            | 1443 | 59 | 129           | 39 | 70 | 5130  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 4  
 Intersection Name: Mathilda Ave & Almanor Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 11/00/15  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |     |               |    |    |                |      |    |               |    |     | Total |
|---------------------------------|----------------|------|-----|---------------|----|----|----------------|------|----|---------------|----|-----|-------|
|                                 | North Approach |      |     | East Approach |    |    | South Approach |      |    | West Approach |    |     |       |
|                                 | RT             | TH   | LT  | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT  |       |
| Existing Conditions             | 76             | 2170 | 155 | 94            | 10 | 31 | 71             | 1262 | 31 | 50            | 94 | 317 | 4361  |
| <b>Approved Project Trips</b>   |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 1080 Stewart Dr                 |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 1100 N. Mathilda Ave            |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 1235 Bordeaux Dr                |                | 4    |     |               |    |    |                | 6    |    |               |    |     | 10    |
| 696 N. Mathilda Ave             |                | 9    |     |               |    |    |                | 8    |    |               |    |     | 17    |
| 725 S. Fair Oaks Ave            |                | 4    |     |               |    |    |                | 5    |    |               |    |     | 9     |
| 750 Lakeway Dr                  |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 767 N. Mathilda Ave             |                | 40   |     |               |    |    |                | 38   | 12 |               |    | 16  | 106   |
| 830 E. El Camino Real           |                | 4    |     |               |    |    |                | 5    |    |               |    |     | 9     |
| 861 E. El Camino Real           |                | 6    |     |               |    |    |                | 6    |    |               |    |     | 12    |
| 1050 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 1081 Innovation Way             |                | 85   |     |               |    |    |                | 20   |    |               |    |     | 105   |
| 1111 Lockheed Martin Way        |                | 34   |     |               |    |    |                | 13   |    |               |    |     | 47    |
| 1152 Bordeaux Dr                |                | 82   |     |               |    |    |                | 10   |    |               |    |     | 92    |
| 1184 N. Mathilda Ave            | 5              | 31   |     |               |    |    |                | 6    |    |               |    | 1   | 43    |
| 1212 Bordeaux Dr                |                | 19   | 1   |               |    |    |                | 7    |    |               |    |     | 27    |
| 1221 Crossman Ave               |                | 22   | 2   |               |    |    |                | 4    |    |               |    |     | 28    |
| 215 Moffett Park Dr             |                | 40   | 7   |               | 2  |    |                | 11   |    |               |    |     | 60    |
| 221 N. Mathilda Ave             |                | 8    |     |               |    |    |                | 40   |    |               |    |     | 48    |
| 280 Santa Ana Ct                |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 495 E. Java Dr & 549 Baltic Way |                | 15   |     |               |    |    |                | 3    |    |               |    |     | 18    |
| 520 Almanor Ave                 | 12             |      |     |               |    |    |                |      | 12 | 43            | 2  | 82  | 151   |
| 589 W. Java Dr                  | 11             | 27   |     |               |    |    |                | 4    |    |               |    | 2   | 44    |
| 615 N. Mathilda Ave             | 2              | 1    |     |               |    |    |                |      |    |               |    | 98  | 101   |
| 684 W. Maude Ave                |                | 32   |     |               |    |    |                | 168  |    |               |    |     | 200   |
| 1120 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 2502 Town Center Ln             |                | 124  |     |               |    |    |                | 114  |    |               |    |     | 238   |
| 675 Almanor Avenue              | 9              |      |     |               |    |    |                |      | 2  | 13            |    | 50  | 74    |
| 1111, 1139 Karlstad Dr          |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 423 E. Maude Ave                |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 460 Persian Dr                  |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 520-550, 610 Weddell Dr         |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 625 E. Taylor Ave               |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 680-698 E. Taylor Ave           |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 701-755 E. Evelyn Ave           |                | 17   |     |               |    |    |                | -42  |    |               |    |     | -25   |
| 915 De Guigne Dr                |                |      |     |               |    |    |                |      |    |               |    |     |       |
| City Place (Phase 1-3)          |                |      |     |               |    |    |                |      |    |               |    |     |       |
| 840 E. El Camino Real           |                | 1    |     |               |    |    |                | 1    |    |               |    |     | 2     |
| Irvine Company - Pathline Park  | 43             | 29   |     |               |    |    |                | 60   |    |               |    | 313 | 445   |
| <i>Total Approved Trips</i>     | 82             | 634  | 10  | 2             | 0  | 0  | 0              | 487  | 26 | 56            | 2  | 562 | 1861  |
| Background Conditions           | 158            | 2804 | 165 | 96            | 10 | 31 | 71             | 1749 | 57 | 106           | 96 | 879 | 6222  |
| <b>Project Trips</b>            | 0              | 18   | 0   | 24            | 0  | 16 | 0              | 0    | 0  | 0             | 0  | 0   | 58    |
| Existing + Project              | 76             | 2188 | 155 | 118           | 10 | 47 | 71             | 1262 | 31 | 50            | 94 | 317 | 4419  |
| Background + Project            | 158            | 2822 | 165 | 120           | 10 | 47 | 71             | 1749 | 57 | 106           | 96 | 879 | 6280  |

## Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 5  
 Intersection Name: Mathilda Ave & San Aleso Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 11/00/15  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |     |               |    |    |                |      |    |               |    |    | Total |
|---------------------------------|----------------|------|-----|---------------|----|----|----------------|------|----|---------------|----|----|-------|
|                                 | North Approach |      |     | East Approach |    |    | South Approach |      |    | West Approach |    |    |       |
|                                 | RT             | TH   | LT  | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT |       |
| Existing Conditions             | 13             | 2213 | 111 | 51            | 2  | 42 | 107            | 1293 | 22 | 23            | 7  | 42 | 3926  |
| <b>Approved Project Trips</b>   |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 1080 Stewart Dr                 |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 1100 N. Mathilda Ave            |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 1235 Bordeaux Dr                |                | 4    |     |               |    |    |                | 6    |    |               |    |    | 10    |
| 696 N. Mathilda Ave             |                | -30  | 39  | 4             |    | 40 |                | 4    |    |               |    |    | 57    |
| 725 S. Fair Oaks Ave            |                | 4    |     |               |    |    |                | 5    |    |               |    |    | 9     |
| 750 Lakeway Dr                  |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 767 N. Mathilda Ave             |                | 13   | 38  |               |    |    |                | 12   |    |               |    |    | 63    |
| 830 E. El Camino Real           |                | 4    |     |               |    |    |                | 5    |    |               |    |    | 9     |
| 861 E. El Camino Real           |                | 6    |     |               |    |    |                | 6    |    |               |    |    | 12    |
| 1050 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 1081 Innovation Way             |                | 85   |     |               |    |    |                | 20   |    |               |    |    | 105   |
| 1111 Lockheed Martin Way        |                | 34   |     |               |    |    |                | 13   |    |               |    |    | 47    |
| 1152 Bordeaux Dr                |                | 82   |     |               |    |    |                | 10   |    |               |    |    | 92    |
| 1184 N. Mathilda Ave            |                | 29   | 2   | 1             |    |    |                | 5    |    |               |    |    | 37    |
| 1212 Bordeaux Dr                |                | 19   |     |               |    |    |                | 7    |    |               |    |    | 26    |
| 1221 Crossman Ave               |                | 22   |     |               |    |    |                | 4    |    |               |    |    | 26    |
| 215 Moffett Park Dr             |                | 40   |     |               |    |    |                | 11   |    |               |    |    | 51    |
| 221 N. Mathilda Ave             |                | 8    |     |               |    |    |                | 40   |    |               |    |    | 48    |
| 280 Santa Ana Ct                |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 495 E. Java Dr & 549 Baltic Way |                | 15   |     |               |    |    |                | 3    |    |               |    |    | 18    |
| 520 Almanor Ave                 |                | 43   |     |               |    |    |                | 12   |    |               |    |    | 55    |
| 589 W. Java Dr                  |                | 27   |     |               |    |    |                | 4    |    |               |    |    | 31    |
| 615 N. Mathilda Ave             |                | 1    |     |               |    |    |                |      |    |               |    |    | 1     |
| 684 W. Maude Ave                |                | 32   |     |               |    |    |                | 168  |    |               |    |    | 200   |
| 1120 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 2502 Town Center Ln             |                | 124  |     |               |    |    |                | 114  |    |               |    |    | 238   |
| 675 Almanor Avenue              |                | 11   | 2   |               |    |    |                | 2    |    |               |    |    | 15    |
| 1111, 1139 Karlstad Dr          |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 423 E. Maude Ave                |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 460 Persian Dr                  |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 520-550, 610 Weddell Dr         |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 625 E. Taylor Ave               |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 680-698 E. Taylor Ave           |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 701-755 E. Evelyn Ave           |                | 17   |     |               |    |    |                | -42  |    |               |    |    | -25   |
| 915 De Guigne Dr                |                |      |     |               |    |    |                |      |    |               |    |    |       |
| City Place (Phase 1-3)          |                |      |     |               |    |    |                |      |    |               |    |    |       |
| 840 E. El Camino Real           |                | 1    |     |               |    |    |                | 1    |    |               |    |    | 2     |
| Irvine Company - Pathline Park  |                | 29   |     |               |    |    |                | 60   |    |               |    |    | 89    |
| <i>Total Approved Trips</i>     | 0              | 620  | 81  | 5             | 0  | 40 | 0              | 470  | 0  | 0             | 0  | 0  | 1216  |
| Background Conditions           | 13             | 2833 | 192 | 56            | 2  | 82 | 107            | 1763 | 22 | 23            | 7  | 42 | 5142  |
| <b>Project Trips</b>            | 0              | 16   | 18  | 0             | 0  | 0  | 32             | 0    | 0  | 0             | 0  | 0  | 66    |
| Existing + Project              | 13             | 2229 | 129 | 51            | 2  | 42 | 139            | 1293 | 22 | 23            | 7  | 42 | 3992  |
| Background + Project            | 13             | 2849 | 210 | 56            | 2  | 82 | 139            | 1763 | 22 | 23            | 7  | 42 | 5208  |

## Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 6  
 Intersection Name: Mathilda Ave & Maude Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 11/00/15  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |     |               |     |     |                |      |     |               |     |     | Total |
|---------------------------------|----------------|------|-----|---------------|-----|-----|----------------|------|-----|---------------|-----|-----|-------|
|                                 | North Approach |      |     | East Approach |     |     | South Approach |      |     | West Approach |     |     |       |
|                                 | RT             | TH   | LT  | RT            | TH  | LT  | RT             | TH   | LT  | RT            | TH  | LT  |       |
| Existing Conditions             | 196            | 1808 | 302 | 113           | 165 | 117 | 124            | 898  | 102 | 540           | 436 | 296 | 5097  |
| <b>Approved Project Trips</b>   |                |      |     |               |     |     |                |      |     |               |     |     |       |
| 1080 Stewart Dr                 |                |      |     |               | 8   |     |                |      |     |               | 7   |     | 15    |
| 1100 N. Mathilda Ave            |                |      |     |               |     |     |                |      |     |               |     |     |       |
| 1235 Bordeaux Dr                |                | 4    |     |               |     |     |                | 6    |     |               |     |     | 10    |
| 696 N. Mathilda Ave             |                | 3    | 8   | 9             |     |     |                | 3    |     |               |     |     | 23    |
| 725 S. Fair Oaks Ave            |                | 4    |     |               |     |     |                | 5    |     |               |     |     | 9     |
| 750 Lakeway Dr                  |                |      |     |               | 6   |     |                |      |     |               | 5   |     | 11    |
| 767 N. Mathilda Ave             | 1              | 12   | 2   | 2             |     |     |                | 10   |     |               |     | 1   | 28    |
| 830 E. El Camino Real           |                | 4    |     |               |     |     |                | 5    |     |               |     |     | 9     |
| 861 E. El Camino Real           |                | 6    |     |               |     |     |                | 6    |     |               |     |     | 12    |
| 1050 Kifer Rd                   |                |      |     |               |     |     |                |      |     |               |     |     |       |
| 1081 Innovation Way             |                | 85   |     |               |     |     |                | 20   |     |               |     |     | 105   |
| 1111 Lockheed Martin Way        | 4              | 29   | 1   |               |     |     |                | 11   |     |               |     | 1   | 46    |
| 1152 Bordeaux Dr                | 8              | 62   | 13  | 2             |     |     |                | 8    |     |               |     | 1   | 94    |
| 1184 N. Mathilda Ave            | 5              | 20   | 4   | 1             |     |     |                | 3    |     |               |     | 1   | 34    |
| 1212 Bordeaux Dr                | 4              | 13   | 2   | 1             |     |     |                | 5    |     |               |     | 1   | 26    |
| 1221 Crossman Ave               |                | 21   | 1   |               |     |     |                | 4    |     |               |     |     | 26    |
| 215 Moffett Park Dr             |                | 40   |     |               |     |     |                | 11   |     |               |     |     | 51    |
| 221 N. Mathilda Ave             |                | 8    |     |               |     |     |                | 40   |     |               |     |     | 48    |
| 280 Santa Ana Ct                |                |      |     |               | 7   |     |                |      |     |               | 1   |     | 8     |
| 495 E. Java Dr & 549 Baltic Way |                | 15   |     |               |     |     |                | 3    |     |               |     |     | 18    |
| 520 Almanor Ave                 |                | 80   | 1   |               |     |     |                | 12   |     |               |     |     | 93    |
| 589 W. Java Dr                  |                | 27   |     |               |     |     |                | 4    |     |               |     |     | 31    |
| 615 N. Mathilda Ave             |                | 104  | 4   |               |     |     |                | 2    |     |               |     |     | 110   |
| 684 W. Maude Ave                | 32             |      |     |               | 2   |     |                |      | 31  | 202           | 10  | 168 | 445   |
| 1120 Kifer Rd                   |                |      |     |               |     |     |                |      |     |               |     |     |       |
| 2502 Town Center Ln             |                | 124  |     |               |     |     |                | 114  | 25  | 23            |     |     | 286   |
| 675 Almanor Avenue              |                | 11   | 3   | 1             |     |     |                | 2    |     | 1             | 1   |     | 19    |
| 1111, 1139 Karlstad Dr          |                |      |     |               |     |     |                |      |     |               |     |     |       |
| 423 E. Maude Ave                |                |      |     |               |     |     |                |      |     |               |     |     |       |
| 460 Persian Dr                  |                |      |     |               |     |     |                |      |     |               |     |     |       |
| 520-550, 610 Weddell Dr         |                |      |     |               |     |     |                |      |     |               |     |     |       |
| 625 E. Taylor Ave               |                |      |     |               |     |     |                |      |     |               | 1   |     | 1     |
| 680-698 E. Taylor Ave           |                |      |     |               | -2  |     |                |      |     |               | 2   |     |       |
| 701-755 E. Evelyn Ave           |                | 17   |     |               |     |     |                | -42  |     |               |     |     | -25   |
| 915 De Guigne Dr                |                |      |     |               |     |     |                |      |     |               |     |     |       |
| City Place (Phase 1-3)          |                |      |     |               |     |     |                |      |     |               |     |     |       |
| 840 E. El Camino Real           |                | 1    |     |               |     |     |                | 1    |     |               |     |     | 2     |
| Irvine Company - Pathline Park  | 13             |      |     |               | 3   |     |                |      | 32  | 162           | 15  | 60  | 285   |
| <i>Total Approved Trips</i>     | 67             | 690  | 39  | 16            | 24  | 0   | 0              | 233  | 88  | 388           | 42  | 233 | 1820  |
| Background Conditions           | 263            | 2498 | 341 | 129           | 189 | 117 | 124            | 1131 | 190 | 928           | 478 | 529 | 6917  |
| <b>Project Trips</b>            | 0              | 16   | 0   | 17            | 0   | 0   | 0              | 15   | 0   | 0             | 0   | 0   | 48    |
| Existing + Project              | 196            | 1824 | 302 | 130           | 165 | 117 | 124            | 913  | 102 | 540           | 436 | 296 | 5145  |
| Background + Project            | 263            | 2514 | 341 | 146           | 189 | 117 | 124            | 1146 | 190 | 928           | 478 | 529 | 6965  |



Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 7  
 Intersection Name: Mathilda Ave & Indio Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 11/00/15  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |    |                |      |    |               |    |    | Total |
|---------------------------------|----------------|------|----|---------------|----|----|----------------|------|----|---------------|----|----|-------|
|                                 | North Approach |      |    | East Approach |    |    | South Approach |      |    | West Approach |    |    |       |
|                                 | RT             | TH   | LT | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT |       |
| Existing Conditions             | 77             | 2582 | 52 | 85            | 0  | 77 | 111            | 1008 | 27 | 407           | 0  | 46 | 4472  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 1080 Stewart Dr                 |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 1100 N. Mathilda Ave            |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 1235 Bordeaux Dr                |                | 4    |    |               |    |    |                | 6    |    |               |    |    | 10    |
| 696 N. Mathilda Ave             |                | 3    |    |               |    |    |                | 3    |    |               |    |    | 6     |
| 725 S. Fair Oaks Ave            |                | 4    |    |               |    |    |                | 5    |    |               |    |    | 9     |
| 750 Lakeway Dr                  |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 767 N. Mathilda Ave             |                | 12   |    | 10            |    |    |                |      |    |               |    |    | 22    |
| 830 E. El Camino Real           |                | 4    |    |               |    |    |                | 5    |    |               |    |    | 9     |
| 861 E. El Camino Real           |                | 6    |    |               |    |    |                | 6    |    |               |    |    | 12    |
| 1050 Kifer Rd                   |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 1081 Innovation Way             | 38             | 47   |    |               |    |    |                | 20   |    |               |    |    | 105   |
| 1111 Lockheed Martin Way        | 4              | 25   |    | 1             |    |    |                | 10   |    |               |    |    | 40    |
| 1152 Bordeaux Dr                |                | 53   | 8  | 1             |    |    |                | 7    |    |               |    |    | 69    |
| 1184 N. Mathilda Ave            |                | 20   |    | 1             |    |    |                | 2    |    |               |    |    | 23    |
| 1212 Bordeaux Dr                | 2              | 11   |    | 1             |    |    |                | 4    |    |               |    |    | 18    |
| 1221 Crossman Ave               | 11             | 10   |    |               |    |    |                | 4    |    |               |    |    | 25    |
| 215 Moffett Park Dr             | 12             | 28   |    | 1             |    |    |                | 10   |    |               |    |    | 51    |
| 221 N. Mathilda Ave             |                | 8    |    |               |    | 10 | 24             | 40   |    |               |    |    | 82    |
| 280 Santa Ana Ct                |                |      |    |               |    |    |                |      |    | 3             |    |    | 3     |
| 495 E. Java Dr & 549 Baltic Way |                | 15   |    |               |    |    |                | 3    |    |               |    |    | 18    |
| 520 Almanor Ave                 | 4              | 76   |    | 5             |    |    |                | 7    |    |               |    |    | 92    |
| 589 W. Java Dr                  | 11             | 16   |    | 2             |    |    |                | 2    |    |               |    |    | 31    |
| 615 N. Mathilda Ave             | 3              | 100  |    | 1             |    |    |                | 1    |    |               |    |    | 105   |
| 684 W. Maude Ave                |                | 202  |    | 10            |    |    |                | 22   |    |               |    |    | 234   |
| 1120 Kifer Rd                   |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 2502 Town Center Ln             |                | 147  |    |               |    |    |                | 138  | 10 |               |    |    | 295   |
| 675 Almanor Avenue              |                | 12   |    | 2             |    |    |                |      |    |               |    |    | 14    |
| 1111, 1139 Karlstad Dr          |                |      |    |               |    |    |                |      |    | -1            |    |    | -1    |
| 423 E. Maude Ave                |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 460 Persian Dr                  |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 520-550, 610 Weddell Dr         |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 625 E. Taylor Ave               |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 680-698 E. Taylor Ave           |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 701-755 E. Evelyn Ave           |                | 17   |    |               |    |    | -14            | -42  |    |               |    |    | -39   |
| 915 De Guigne Dr                |                |      |    |               |    |    |                |      |    |               |    |    |       |
| City Place (Phase 1-3)          |                |      |    |               |    |    |                |      |    |               |    |    |       |
| 840 E. El Camino Real           |                | 1    |    |               |    |    |                | 1    |    |               |    |    | 2     |
| Irvine Company - Pathline Park  |                | 162  |    |               |    |    |                | 32   |    |               |    |    | 194   |
| <i>Total Approved Trips</i>     | 85             | 983  | 8  | 35            | 0  | 10 | 10             | 286  | 10 | 2             | 0  | 0  | 1429  |
| Background Conditions           | 162            | 3565 | 60 | 120           | 0  | 87 | 121            | 1294 | 37 | 409           | 0  | 46 | 5901  |
| <b>Project Trips</b>            | 0              | 15   | 0  | 8             | 0  | 0  | 0              | 8    | 0  | 0             | 0  | 0  | 31    |
| Existing + Project              | 77             | 2597 | 52 | 93            | 0  | 77 | 111            | 1016 | 27 | 407           | 0  | 46 | 4503  |
| Background + Project            | 162            | 3580 | 60 | 128           | 0  | 87 | 121            | 1302 | 37 | 409           | 0  | 46 | 5932  |

## Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 8  
 Intersection Name: Mathilda Ave & California Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 11/00/15  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |     |               |    |    |                |      |    |               |     |     | Total |
|---------------------------------|----------------|------|-----|---------------|----|----|----------------|------|----|---------------|-----|-----|-------|
|                                 | North Approach |      |     | East Approach |    |    | South Approach |      |    | West Approach |     |     |       |
|                                 | RT             | TH   | LT  | RT            | TH | LT | RT             | TH   | LT | RT            | TH  | LT  |       |
| Existing Conditions             | 338            | 2732 | 139 | 107           | 48 | 63 | 263            | 857  | 87 | 313           | 161 | 122 | 5230  |
| <b>Approved Project Trips</b>   |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 1080 Stewart Dr                 |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 1100 N. Mathilda Ave            |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 1235 Bordeaux Dr                |                | 4    |     |               |    |    |                | 6    |    |               |     |     | 10    |
| 696 N. Mathilda Ave             |                | 3    |     |               |    |    |                | 3    |    |               |     |     | 6     |
| 725 S. Fair Oaks Ave            |                | 4    |     |               |    |    |                | 5    |    |               |     |     | 9     |
| 750 Lakeway Dr                  |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 767 N. Mathilda Ave             | 12             |      |     |               |    |    |                |      |    |               |     |     | 12    |
| 830 E. El Camino Real           |                | 4    |     |               |    |    |                | 5    |    |               |     |     | 9     |
| 861 E. El Camino Real           |                | 6    |     |               |    |    |                | 6    |    |               |     |     | 12    |
| 1050 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 1081 Innovation Way             |                | 47   |     | 9             |    |    |                | 11   |    |               |     |     | 67    |
| 1111 Lockheed Martin Way        | 3              | 22   |     | 1             |    |    |                | 8    |    |               |     |     | 34    |
| 1152 Bordeaux Dr                |                | 46   | 8   |               |    |    |                | 5    |    |               |     | 1   | 60    |
| 1184 N. Mathilda Ave            | 8              | 12   |     |               |    |    |                | 2    |    |               |     |     | 22    |
| 1212 Bordeaux Dr                | 5              | 6    |     | 1             |    |    |                | 3    |    |               |     |     | 15    |
| 1221 Crossman Ave               |                | 10   |     | 2             |    |    |                | 2    |    |               |     |     | 14    |
| 215 Moffett Park Dr             | 5              | 23   |     | 3             |    |    |                | 7    |    |               |     |     | 38    |
| 221 N. Mathilda Ave             | 18             |      |     |               |    |    |                |      |    | 6             |     | 38  | 64    |
| 280 Santa Ana Ct                |                | 3    |     |               |    |    | 6              |      |    |               |     |     | 9     |
| 495 E. Java Dr & 549 Baltic Way |                | 15   |     |               |    |    |                | 3    |    |               |     |     | 18    |
| 520 Almanor Ave                 | 34             | 41   |     |               |    |    |                | 6    |    |               |     | 1   | 82    |
| 589 W. Java Dr                  | 11             | 5    |     | 2             |    |    |                |      |    |               |     |     | 18    |
| 615 N. Mathilda Ave             |                | 48   | 52  |               |    |    |                | 1    |    |               |     |     | 101   |
| 684 W. Maude Ave                | 104            | 98   |     |               |    |    |                | 18   |    |               |     | 4   | 224   |
| 1120 Kifer Rd                   |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 2502 Town Center Ln             |                | 147  |     |               |    |    |                | 149  |    | 14            |     |     | 310   |
| 675 Almanor Avenue              | 12             |      |     |               |    |    |                |      |    |               |     |     | 12    |
| 1111, 1139 Karlstad Dr          |                | -1   |     |               |    |    | 3              |      |    |               |     |     | 2     |
| 423 E. Maude Ave                |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 460 Persian Dr                  |                |      |     |               |    |    | 1              |      |    |               |     |     | 1     |
| 520-550, 610 Weddell Dr         |                |      |     |               |    |    | 7              |      |    |               |     |     | 7     |
| 625 E. Taylor Ave               |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 680-698 E. Taylor Ave           |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 701-755 E. Evelyn Ave           |                | 17   |     |               |    |    |                | -56  |    | 6             |     |     | -33   |
| 915 De Guigne Dr                |                |      |     |               |    |    |                |      |    |               |     |     |       |
| City Place (Phase 1-3)          |                |      |     |               |    |    |                |      |    |               |     |     |       |
| 840 E. El Camino Real           |                | 1    |     |               |    |    |                | 1    |    |               |     |     | 2     |
| Irvine Company - Pathline Park  |                | 162  |     |               |    |    |                | 32   |    |               |     |     | 194   |
| <i>Total Approved Trips</i>     | 212            | 723  | 60  | 18            | 0  | 0  | 17             | 217  | 6  | 58            | 0   | 70  | 1381  |
| Background Conditions           | 550            | 3455 | 199 | 125           | 48 | 63 | 280            | 1074 | 93 | 371           | 161 | 192 | 6611  |
| <b>Project Trips</b>            | 6              | 9    | 0   | 0             | 0  | 0  | 0              | 8    | 0  | 0             | 0   | 0   | 23    |
| Existing + Project              | 344            | 2741 | 139 | 107           | 48 | 63 | 263            | 865  | 87 | 313           | 161 | 122 | 5253  |
| Background + Project            | 556            | 3464 | 199 | 125           | 48 | 63 | 280            | 1082 | 93 | 371           | 161 | 192 | 6634  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 9  
 Intersection Name: San Aleso Ave & Ahwanee Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 05/16/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |    |    |               |    |    |                |    |    |               |     |    | Total |     |
|---------------------------------|----------------|----|----|---------------|----|----|----------------|----|----|---------------|-----|----|-------|-----|
|                                 | North Approach |    |    | East Approach |    |    | South Approach |    |    | West Approach |     |    |       |     |
|                                 | RT             | TH | LT | RT            | TH | LT | RT             | TH | LT | RT            | TH  | LT |       |     |
| Existing Conditions             | 0              | 0  | 0  | 0             | 94 | 30 | 98             | 0  | 8  | 10            | 264 | 0  | 504   |     |
| <b>Approved Project Trips</b>   |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1080 Stewart Dr                 |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1100 N. Mathilda Ave            |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1235 Bordeaux Dr                |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 696 N. Mathilda Ave             |                |    |    |               |    | 9  |                | 8  |    |               |     |    |       | 17  |
| 725 S. Fair Oaks Ave            |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 750 Lakeway Dr                  |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 767 N. Mathilda Ave             |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 830 E. El Camino Real           |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 861 E. El Camino Real           |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1050 Kifer Rd                   |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1081 Innovation Way             |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1111 Lockheed Martin Way        |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1152 Bordeaux Dr                |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1184 N. Mathilda Ave            |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1212 Bordeaux Dr                |                |    |    |               |    |    |                |    |    |               | 1   |    |       | 1   |
| 1221 Crossman Ave               |                |    |    |               |    |    |                |    |    |               | 2   |    |       | 2   |
| 215 Moffett Park Dr             |                |    |    |               |    | 2  |                |    |    |               | 7   |    |       | 9   |
| 221 N. Mathilda Ave             |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 280 Santa Ana Ct                |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 495 E. Java Dr & 549 Baltic Way |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 520 Almanor Ave                 |                |    |    |               |    |    |                |    |    |               | 2   |    |       | 2   |
| 589 W. Java Dr                  |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 615 N. Mathilda Ave             |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 684 W. Maude Ave                |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1120 Kifer Rd                   |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 2502 Town Center Ln             |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 675 Almanor Avenue              |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 1111, 1139 Karlstad Dr          |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 423 E. Maude Ave                |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 460 Persian Dr                  |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 520-550, 610 Weddell Dr         |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 625 E. Taylor Ave               |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 680-698 E. Taylor Ave           |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 701-755 E. Evelyn Ave           |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 915 De Guigne Dr                |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| City Place (Phase 1-3)          |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| 840 E. El Camino Real           |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| Irvine Company - Pathline Park  |                |    |    |               |    |    |                |    |    |               |     |    |       |     |
| <i>Total Approved Trips</i>     | 0              | 0  | 0  | 0             | 2  | 9  | 8              | 0  | 0  | 0             | 12  | 0  |       | 31  |
| Background Conditions           | 0              | 0  | 0  | 0             | 96 | 39 | 106            | 0  | 8  | 10            | 276 | 0  |       | 535 |
| <b>Project Trips</b>            | 0              | 0  | 0  | 0             | 0  | 0  | 23             | 0  | 40 | 0             | 0   | 0  |       | 63  |
| Existing + Project              | 0              | 0  | 0  | 0             | 94 | 30 | 121            | 0  | 48 | 10            | 264 | 0  |       | 567 |
| Background + Project            | 0              | 0  | 0  | 0             | 96 | 39 | 129            | 0  | 48 | 10            | 276 | 0  |       | 598 |

## Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 10  
 Intersection Name: Borregas Ave & Ahwanee Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 05/16/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |    |    |               |    |    |                |    |    |               |     |    | Total |
|---------------------------------|----------------|----|----|---------------|----|----|----------------|----|----|---------------|-----|----|-------|
|                                 | North Approach |    |    | East Approach |    |    | South Approach |    |    | West Approach |     |    |       |
|                                 | RT             | TH | LT | RT            | TH | LT | RT             | TH | LT | RT            | TH  | LT |       |
| Existing Conditions             | 0              | 0  | 0  | 0             | 69 | 90 | 59             | 0  | 61 | 175           | 167 | 0  | 621   |
| <b>Approved Project Trips</b>   |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1080 Stewart Dr                 |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1100 N. Mathilda Ave            |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1235 Bordeaux Dr                |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 696 N. Mathilda Ave             |                |    |    |               | 9  |    |                |    |    |               | 8   |    | 17    |
| 725 S. Fair Oaks Ave            |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 750 Lakeway Dr                  |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 767 N. Mathilda Ave             |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 830 E. El Camino Real           |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 861 E. El Camino Real           |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1050 Kifer Rd                   |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1081 Innovation Way             |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1111 Lockheed Martin Way        |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1152 Bordeaux Dr                |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1184 N. Mathilda Ave            |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1212 Bordeaux Dr                |                |    |    |               |    |    |                |    |    | 1             |     |    | 1     |
| 1221 Crossman Ave               |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 215 Moffett Park Dr             |                |    |    |               |    |    |                |    | 2  | 7             |     |    | 9     |
| 221 N. Mathilda Ave             |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 280 Santa Ana Ct                |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 495 E. Java Dr & 549 Baltic Way |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 520 Almanor Ave                 |                |    |    |               |    |    |                |    |    |               | 2   |    | 2     |
| 589 W. Java Dr                  |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 615 N. Mathilda Ave             |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 684 W. Maude Ave                |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1120 Kifer Rd                   |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 2502 Town Center Ln             |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 675 Almanor Avenue              |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 1111, 1139 Karlstad Dr          |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 423 E. Maude Ave                |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 460 Persian Dr                  |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 520-550, 610 Weddell Dr         |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 625 E. Taylor Ave               |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 680-698 E. Taylor Ave           |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 701-755 E. Evelyn Ave           |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 915 De Guigne Dr                |                |    |    |               |    |    |                |    |    |               |     |    |       |
| City Place (Phase 1-3)          |                |    |    |               |    |    |                |    |    |               |     |    |       |
| 840 E. El Camino Real           |                |    |    |               |    |    |                |    |    |               |     |    |       |
| Irvine Company - Pathline Park  |                |    |    |               |    |    |                |    |    |               |     |    |       |
| <i>Total Approved Trips</i>     | 0              | 0  | 0  | 0             | 9  | 0  | 0              | 0  | 2  | 8             | 10  | 0  | 29    |
| Background Conditions           | 0              | 0  | 0  | 0             | 78 | 90 | 59             | 0  | 63 | 183           | 177 | 0  | 650   |
| <b>Project Trips</b>            | 0              | 0  | 0  | 0             | 0  | 0  | 0              | 0  | 0  | 4             | 19  | 0  | 23    |
| Existing + Project              | 0              | 0  | 0  | 0             | 69 | 90 | 59             | 0  | 61 | 179           | 186 | 0  | 644   |
| Background + Project            | 0              | 0  | 0  | 0             | 78 | 90 | 59             | 0  | 63 | 187           | 196 | 0  | 673   |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 11  
 Intersection Name: Borregas Ave & Duane Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 05/16/17  
 Scenario: Summit School TIA

| Scenario:           | Movements      |     |    |               |    |    |                |     |    |               |    |    | Total |
|---------------------|----------------|-----|----|---------------|----|----|----------------|-----|----|---------------|----|----|-------|
|                     | North Approach |     |    | East Approach |    |    | South Approach |     |    | West Approach |    |    |       |
|                     | RT             | TH  | LT | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT |       |
| Existing Conditions | 7              | 198 | 17 | 19            | 7  | 45 | 31             | 135 | 15 | 10            | 9  | 3  | 496   |

**Approved Project Trips**

|                                 |   |     |    |    |   |    |    |     |    |    |   |   |     |
|---------------------------------|---|-----|----|----|---|----|----|-----|----|----|---|---|-----|
| 1080 Stewart Dr                 |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1100 N. Mathilda Ave            |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1235 Bordeaux Dr                |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 696 N. Mathilda Ave             |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 725 S. Fair Oaks Ave            |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 750 Lakeway Dr                  |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 767 N. Mathilda Ave             |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 830 E. El Camino Real           |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 861 E. El Camino Real           |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1050 Kifer Rd                   |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1081 Innovation Way             |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1111 Lockheed Martin Way        |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1152 Bordeaux Dr                |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1184 N. Mathilda Ave            |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1212 Bordeaux Dr                |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1221 Crossman Ave               |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 215 Moffett Park Dr             |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 221 N. Mathilda Ave             |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 280 Santa Ana Ct                |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 495 E. Java Dr & 549 Baltic Way |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 520 Almanor Ave                 |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 589 W. Java Dr                  |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 615 N. Mathilda Ave             |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 684 W. Maude Ave                |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1120 Kifer Rd                   |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 2502 Town Center Ln             |   | 11  |    |    |   |    |    | 12  |    |    |   |   | 23  |
| 675 Almanor Avenue              |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 1111, 1139 Karlstad Dr          |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 423 E. Maude Ave                |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 460 Persian Dr                  |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 520-550, 610 Weddell Dr         |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 625 E. Taylor Ave               |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 680-698 E. Taylor Ave           |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 701-755 E. Evelyn Ave           |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 915 De Guigne Dr                |   |     |    |    |   |    |    |     |    |    |   |   |     |
| City Place (Phase 1-3)          |   |     |    |    |   |    |    |     |    |    |   |   |     |
| 840 E. El Camino Real           |   |     |    |    |   |    |    |     |    |    |   |   |     |
| Irvine Company - Pathline Park  |   |     |    |    |   |    |    |     |    |    |   |   |     |
| <i>Total Approved Trips</i>     | 0 | 11  | 0  | 0  | 0 | 0  | 0  | 12  | 0  | 0  | 0 | 0 | 23  |
| Background Conditions           | 7 | 209 | 17 | 19 | 7 | 45 | 31 | 147 | 15 | 10 | 9 | 3 | 519 |
| <b>Project Trips</b>            | 0 | 2   | 2  | 0  | 0 | 0  | 0  | 0   | 0  | 0  | 0 | 0 | 4   |
| Existing + Project              | 7 | 200 | 19 | 19 | 7 | 45 | 31 | 135 | 15 | 10 | 9 | 3 | 500 |
| Background + Project            | 7 | 211 | 19 | 19 | 7 | 45 | 31 | 147 | 15 | 10 | 9 | 3 | 523 |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 12  
 Intersection Name: Sunnyside Ave/Borre & Maude Ave  
 Peak Hour: Commute PM  
 Count Date: 05/16/17  
 Scenario: Summit School TIA  
 Date of Analysis: 01/05/18

| Scenario:                       | Movements      |    |     |               |     |     |                |    |     |               |     |     | Total |
|---------------------------------|----------------|----|-----|---------------|-----|-----|----------------|----|-----|---------------|-----|-----|-------|
|                                 | North Approach |    |     | East Approach |     |     | South Approach |    |     | West Approach |     |     |       |
|                                 | RT             | TH | LT  | RT            | TH  | LT  | RT             | TH | LT  | RT            | TH  | LT  |       |
| Existing Conditions             | 130            | 0  | 148 | 0             | 219 | 100 | 138            | 0  | 109 | 0             | 618 | 121 | 1583  |
| <b>Approved Project Trips</b>   |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 1080 Stewart Dr                 |                |    |     |               | 8   |     |                |    |     |               | 7   |     | 15    |
| 1100 N. Mathilda Ave            |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 1235 Bordeaux Dr                |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 696 N. Mathilda Ave             |                |    |     |               | 9   |     |                |    |     |               | 8   |     | 17    |
| 725 S. Fair Oaks Ave            |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 750 Lakeway Dr                  |                |    |     |               | 6   |     |                |    |     |               | 5   |     | 11    |
| 767 N. Mathilda Ave             |                |    |     |               | 2   |     |                |    |     |               | 2   |     | 4     |
| 830 E. El Camino Real           |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 861 E. El Camino Real           |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 1050 Kifer Rd                   |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 1081 Innovation Way             |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 1111 Lockheed Martin Way        |                |    |     |               |     |     |                |    |     |               | 1   |     | 1     |
| 1152 Bordeaux Dr                | 2              |    |     |               |     |     |                |    |     |               |     | 13  | 15    |
| 1184 N. Mathilda Ave            |                |    |     |               | 1   |     |                |    |     |               | 4   |     | 5     |
| 1212 Bordeaux Dr                |                |    |     |               | 1   |     |                |    |     |               | 2   |     | 3     |
| 1221 Crossman Ave               |                |    |     |               | 2   | 2   |                |    |     |               |     |     | 4     |
| 215 Moffett Park Dr             |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 221 N. Mathilda Ave             |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 280 Santa Ana Ct                |                |    |     |               | 7   |     |                |    |     |               | 1   |     | 8     |
| 495 E. Java Dr & 549 Baltic Way |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 520 Almanor Ave                 |                |    |     |               |     |     |                |    |     |               | 1   |     | 1     |
| 589 W. Java Dr                  |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 615 N. Mathilda Ave             |                |    |     |               |     |     |                |    |     |               | 4   |     | 4     |
| 684 W. Maude Ave                |                |    |     |               | 2   |     |                |    |     |               | 10  |     | 12    |
| 1120 Kifer Rd                   |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 2502 Town Center Ln             |                |    | 11  |               | 12  |     |                |    |     |               |     |     | 23    |
| 675 Almanor Avenue              |                |    |     |               | 1   |     |                |    |     |               | 4   |     | 5     |
| 1111, 1139 Karlstad Dr          |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 423 E. Maude Ave                |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 460 Persian Dr                  |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 520-550, 610 Weddell Dr         |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 625 E. Taylor Ave               |                |    |     |               |     |     |                |    |     |               | 1   |     | 1     |
| 680-698 E. Taylor Ave           |                |    |     |               | -2  |     |                |    |     |               | 2   |     |       |
| 701-755 E. Evelyn Ave           |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 915 De Guigne Dr                |                |    |     |               |     |     |                |    |     |               |     |     |       |
| City Place (Phase 1-3)          |                |    |     |               |     |     |                |    |     |               |     |     |       |
| 840 E. El Camino Real           |                |    |     |               |     |     |                |    |     |               |     |     |       |
| Irvine Company - Pathline Park  |                |    |     |               | 3   |     |                |    |     |               | 15  |     | 18    |
| <i>Total Approved Trips</i>     | 2              | 0  | 11  | 0             | 52  | 2   | 0              | 0  | 0   | 0             | 67  | 13  | 147   |
| Background Conditions           | 132            | 0  | 159 | 0             | 271 | 102 | 138            | 0  | 109 | 0             | 685 | 134 | 1730  |
| <b>Project Trips</b>            | 0              | 0  | 2   | 0             | 15  | 0   | 0              | 0  | 2   | 0             | 0   | 0   | 19    |
| Existing + Project              | 130            | 0  | 150 | 0             | 234 | 100 | 138            | 0  | 111 | 0             | 618 | 121 | 1602  |
| Background + Project            | 132            | 0  | 161 | 0             | 286 | 102 | 138            | 0  | 111 | 0             | 685 | 134 | 1749  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 13  
 Intersection Name: Morse Ave & Ahwanee Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 05/16/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |    |    |               |     |     |                |    |    |               |     |    | Total |  |
|---------------------------------|----------------|----|----|---------------|-----|-----|----------------|----|----|---------------|-----|----|-------|--|
|                                 | North Approach |    |    | East Approach |     |     | South Approach |    |    | West Approach |     |    |       |  |
|                                 | RT             | TH | LT | RT            | TH  | LT  | RT             | TH | LT | RT            | TH  | LT |       |  |
| Existing Conditions             | 0              | 0  | 0  | 0             | 141 | 159 | 64             | 0  | 27 | 61            | 168 | 0  | 620   |  |
| <b>Approved Project Trips</b>   |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1080 Stewart Dr                 |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1100 N. Mathilda Ave            |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1235 Bordeaux Dr                |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 696 N. Mathilda Ave             |                |    |    |               | 9   |     |                |    |    |               | 8   |    | 17    |  |
| 725 S. Fair Oaks Ave            |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 750 Lakeway Dr                  |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 767 N. Mathilda Ave             |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 830 E. El Camino Real           |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 861 E. El Camino Real           |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1050 Kifer Rd                   |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1081 Innovation Way             |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1111 Lockheed Martin Way        |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1152 Bordeaux Dr                |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1184 N. Mathilda Ave            |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1212 Bordeaux Dr                |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1221 Crossman Ave               |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 215 Moffett Park Dr             |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 221 N. Mathilda Ave             |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 280 Santa Ana Ct                |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 495 E. Java Dr & 549 Baltic Way |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 520 Almanor Ave                 |                |    |    |               |     |     |                |    |    |               | 2   |    | 2     |  |
| 589 W. Java Dr                  |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 615 N. Mathilda Ave             |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 684 W. Maude Ave                |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1120 Kifer Rd                   |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 2502 Town Center Ln             |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 675 Almanor Avenue              |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 1111, 1139 Karlstad Dr          |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 423 E. Maude Ave                |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 460 Persian Dr                  |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 520-550, 610 Weddell Dr         |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 625 E. Taylor Ave               |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 680-698 E. Taylor Ave           |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 701-755 E. Evelyn Ave           |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 915 De Guigne Dr                |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| City Place (Phase 1-3)          |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| 840 E. El Camino Real           |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| Irvine Company - Pathline Park  |                |    |    |               |     |     |                |    |    |               |     |    |       |  |
| <i>Total Approved Trips</i>     | 0              | 0  | 0  | 0             | 9   | 0   | 0              | 0  | 0  | 0             | 10  | 0  | 19    |  |
| Background Conditions           | 0              | 0  | 0  | 0             | 150 | 159 | 64             | 0  | 27 | 61            | 178 | 0  | 639   |  |
| <b>Project Trips</b>            | 0              | 0  | 0  | 0             | 0   | 0   | 0              | 0  | 0  | 1             | 18  | 0  | 19    |  |
| Existing + Project              | 0              | 0  | 0  | 0             | 141 | 159 | 64             | 0  | 27 | 62            | 186 | 0  | 639   |  |
| Background + Project            | 0              | 0  | 0  | 0             | 150 | 159 | 64             | 0  | 27 | 62            | 196 | 0  | 658   |  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 14  
 Intersection Name: Morse Ave & Duane Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 05/16/17  
 Scenario: Summit School TIA

| Scenario:           | Movements      |    |    |               |    |    |                |     |    |               |    |    | Total |
|---------------------|----------------|----|----|---------------|----|----|----------------|-----|----|---------------|----|----|-------|
|                     | North Approach |    |    | East Approach |    |    | South Approach |     |    | West Approach |    |    |       |
|                     | RT             | TH | LT | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT |       |
| Existing Conditions | 8              | 96 | 45 | 31            | 99 | 34 | 37             | 106 | 1  | 7             | 58 | 10 | 532   |

**Approved Project Trips**

|                                 |   |     |    |    |     |    |    |     |   |    |    |    |     |
|---------------------------------|---|-----|----|----|-----|----|----|-----|---|----|----|----|-----|
| 1080 Stewart Dr                 |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1100 N. Mathilda Ave            |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1235 Bordeaux Dr                |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 696 N. Mathilda Ave             |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 725 S. Fair Oaks Ave            |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 750 Lakeway Dr                  |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 767 N. Mathilda Ave             |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 830 E. El Camino Real           |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 861 E. El Camino Real           |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1050 Kifer Rd                   |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1081 Innovation Way             |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1111 Lockheed Martin Way        |   |     |    |    | 6   |    |    |     |   |    | 1  |    | 7   |
| 1152 Bordeaux Dr                |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1184 N. Mathilda Ave            |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1212 Bordeaux Dr                |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1221 Crossman Ave               |   |     |    |    | 3   |    |    |     |   |    | 1  |    | 4   |
| 215 Moffett Park Dr             |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 221 N. Mathilda Ave             |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 280 Santa Ana Ct                |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 495 E. Java Dr & 549 Baltic Way |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 520 Almanor Ave                 |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 589 W. Java Dr                  |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 615 N. Mathilda Ave             |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 684 W. Maude Ave                |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1120 Kifer Rd                   |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 2502 Town Center Ln             |   | 11  |    |    |     |    |    |     |   | 12 |    |    | 23  |
| 675 Almanor Avenue              |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 1111, 1139 Karlstad Dr          |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 423 E. Maude Ave                |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 460 Persian Dr                  |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 520-550, 610 Weddell Dr         |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 625 E. Taylor Ave               |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 680-698 E. Taylor Ave           |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 701-755 E. Evelyn Ave           |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 915 De Guigne Dr                |   |     |    |    |     |    |    |     |   |    |    |    |     |
| City Place (Phase 1-3)          |   |     |    |    |     |    |    |     |   |    |    |    |     |
| 840 E. El Camino Real           |   |     |    |    |     |    |    |     |   |    |    |    |     |
| Irvine Company - Pathline Park  |   |     |    |    |     |    |    |     |   |    |    |    |     |
| <i>Total Approved Trips</i>     | 0 | 11  | 0  | 0  | 9   | 0  | 0  | 12  | 0 | 0  | 2  | 0  | 34  |
| Background Conditions           | 8 | 107 | 45 | 31 | 108 | 34 | 37 | 118 | 1 | 7  | 60 | 10 | 566 |
| <b>Project Trips</b>            | 0 | 1   | 0  | 0  | 0   | 1  | 0  | 0   | 0 | 0  | 2  | 0  | 4   |
| Existing + Project              | 8 | 97  | 45 | 31 | 99  | 35 | 37 | 106 | 1 | 7  | 60 | 10 | 536 |
| Background + Project            | 8 | 108 | 45 | 31 | 108 | 35 | 37 | 118 | 1 | 7  | 62 | 10 | 570 |



Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 15  
 Intersection Name: Morse Ave & Maude Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 05/16/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |    |    |               |     |    |                |    |    |               |     |     | Total |
|---------------------------------|----------------|----|----|---------------|-----|----|----------------|----|----|---------------|-----|-----|-------|
|                                 | North Approach |    |    | East Approach |     |    | South Approach |    |    | West Approach |     |     |       |
|                                 | RT             | TH | LT | RT            | TH  | LT | RT             | TH | LT | RT            | TH  | LT  |       |
| Existing Conditions             | 85             | 11 | 31 | 39            | 241 | 11 | 1              | 11 | 12 | 16            | 502 | 101 | 1061  |
| <b>Approved Project Trips</b>   |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1080 Stewart Dr                 |                |    |    |               | 8   |    |                |    |    |               | 7   |     | 15    |
| 1100 N. Mathilda Ave            |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1235 Bordeaux Dr                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 696 N. Mathilda Ave             |                |    |    |               | 9   |    |                |    |    |               | 8   |     | 17    |
| 725 S. Fair Oaks Ave            |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 750 Lakeway Dr                  |                |    |    |               | 6   |    |                |    |    |               | 5   |     | 11    |
| 767 N. Mathilda Ave             |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 830 E. El Camino Real           |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 861 E. El Camino Real           |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1050 Kifer Rd                   |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1081 Innovation Way             |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1111 Lockheed Martin Way        |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1152 Bordeaux Dr                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1184 N. Mathilda Ave            |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1212 Bordeaux Dr                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1221 Crossman Ave               |                |    |    |               | 4   |    |                |    |    |               | 1   |     | 5     |
| 215 Moffett Park Dr             |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 221 N. Mathilda Ave             |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 280 Santa Ana Ct                |                |    |    |               | 7   |    |                |    |    |               | 1   |     | 8     |
| 495 E. Java Dr & 549 Baltic Way |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 520 Almanor Ave                 |                |    |    |               |     |    |                |    |    |               | 1   |     | 1     |
| 589 W. Java Dr                  |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 615 N. Mathilda Ave             |                |    |    |               |     |    |                |    |    |               | 4   |     | 4     |
| 684 W. Maude Ave                |                |    |    |               | 2   |    |                |    |    |               | 10  |     | 12    |
| 1120 Kifer Rd                   |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 2502 Town Center Ln             | 11             |    |    |               |     |    |                |    |    |               |     | 12  | 23    |
| 675 Almanor Avenue              |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 1111, 1139 Karlstad Dr          |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 423 E. Maude Ave                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 460 Persian Dr                  |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 520-550, 610 Weddell Dr         |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 625 E. Taylor Ave               |                |    |    |               |     |    |                |    |    |               | 1   |     | 1     |
| 680-698 E. Taylor Ave           |                |    |    |               | -2  |    |                |    |    |               | 2   |     |       |
| 701-755 E. Evelyn Ave           |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 915 De Guigne Dr                |                |    |    |               |     |    |                |    |    |               |     |     |       |
| City Place (Phase 1-3)          |                |    |    |               |     |    |                |    |    |               |     |     |       |
| 840 E. El Camino Real           |                |    |    |               |     |    |                |    |    |               |     |     |       |
| Irvine Company - Pathline Park  |                |    |    |               | 3   |    |                |    |    |               | 15  |     | 18    |
| <i>Total Approved Trips</i>     | 11             | 0  | 0  | 0             | 37  | 0  | 0              | 0  | 0  | 0             | 55  | 12  | 115   |
| Background Conditions           | 96             | 11 | 31 | 39            | 278 | 11 | 1              | 11 | 12 | 16            | 557 | 113 | 1176  |
| <b>Project Trips</b>            | 1              | 0  | 0  | 0             | 14  | 0  | 0              | 0  | 0  | 0             | 0   | 0   | 15    |
| Existing + Project              | 86             | 11 | 31 | 39            | 255 | 11 | 1              | 11 | 12 | 16            | 502 | 101 | 1076  |
| Background + Project            | 97             | 11 | 31 | 39            | 292 | 11 | 1              | 11 | 12 | 16            | 557 | 113 | 1191  |

## Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 16  
 Intersection Name: Fair Oaks Ave & Weddell Dr  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 04/04/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |    |                |      |     |               |    |    | Total |
|---------------------------------|----------------|------|----|---------------|----|----|----------------|------|-----|---------------|----|----|-------|
|                                 | North Approach |      |    | East Approach |    |    | South Approach |      |     | West Approach |    |    |       |
|                                 | RT             | TH   | LT | RT            | TH | LT | RT             | TH   | LT  | RT            | TH | LT |       |
| Existing Conditions             | 28             | 1178 | 26 | 22            | 5  | 31 | 83             | 921  | 275 | 177           | 7  | 18 | 2771  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 1080 Stewart Dr                 |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 1100 N. Mathilda Ave            |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 1235 Bordeaux Dr                |                | 12   |    |               |    |    |                | 11   |     |               |    |    | 23    |
| 696 N. Mathilda Ave             |                | 9    |    |               |    |    |                | 8    |     |               |    |    | 17    |
| 725 S. Fair Oaks Ave            |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 750 Lakeway Dr                  |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 767 N. Mathilda Ave             |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 830 E. El Camino Real           |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 861 E. El Camino Real           |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 1050 Kifer Rd                   |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 1081 Innovation Way             |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 1111 Lockheed Martin Way        |                | 16   |    |               |    |    |                | 5    |     |               |    |    | 21    |
| 1152 Bordeaux Dr                |                | 20   |    |               |    |    |                | 2    |     |               |    |    | 22    |
| 1184 N. Mathilda Ave            |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 1212 Bordeaux Dr                |                | 6    |    |               |    |    |                | 1    |     |               |    |    | 7     |
| 1221 Crossman Ave               | 1              | 95   | 1  |               |    |    |                | 17   |     |               |    |    | 114   |
| 215 Moffett Park Dr             |                | 12   |    |               |    |    |                | 3    |     |               |    |    | 15    |
| 221 N. Mathilda Ave             |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 280 Santa Ana Ct                |                | 1    |    |               |    |    |                | 7    |     |               |    |    | 8     |
| 495 E. Java Dr & 549 Baltic Way |                | 88   |    |               |    |    |                | 16   |     |               |    |    | 104   |
| 520 Almanor Ave                 |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 589 W. Java Dr                  |                | 34   |    |               |    |    |                | 7    |     |               |    |    | 41    |
| 615 N. Mathilda Ave             |                |      |    |               |    |    |                | 3    |     |               |    |    | 3     |
| 684 W. Maude Ave                |                | 1    |    |               |    |    |                | 6    |     |               |    |    | 7     |
| 1120 Kifer Rd                   |                | 21   |    |               |    |    |                | 12   |     |               |    |    | 33    |
| 2502 Town Center Ln             |                | 45   |    |               |    |    |                | 49   |     |               |    |    | 94    |
| 675 Almanor Avenue              |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 1111, 1139 Karlstad Dr          |                | -30  |    |               |    |    |                | 73   |     |               |    |    | 43    |
| 423 E. Maude Ave                |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 460 Persian Dr                  |                | -11  |    |               |    |    |                | 16   |     |               |    |    | 5     |
| 520-550, 610 Weddell Dr         | 32             |      | 18 | -1            |    | -2 | 54             | 130  | -8  |               |    | -2 | 221   |
| 625 E. Taylor Ave               |                | 2    |    |               |    |    |                | -1   |     |               |    |    | 1     |
| 680-698 E. Taylor Ave           |                | 5    |    |               |    |    |                | -5   |     |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |      |    |               |    |    |                |      |     |               |    |    |       |
| 915 De Guigne Dr                |                | 14   |    |               |    |    |                | -11  |     |               |    |    | 3     |
| City Place (Phase 1-3)          | 3              | 30   | 6  | 6             | 6  | 5  | 4              | 23   | 4   | 5             | 4  | 8  | 104   |
| 840 E. El Camino Real           |                |      |    |               |    |    |                |      |     |               |    |    |       |
| Irvine Company - Pathline Park  |                | 2    |    |               |    |    |                | 12   |     |               |    |    | 14    |
| <i>Total Approved Trips</i>     | 36             | 372  | 25 | 5             | 6  | 3  | 58             | 254  | 134 | -3            | 4  | 6  | 900   |
| Background Conditions           | 64             | 1550 | 51 | 27            | 11 | 34 | 141            | 1175 | 409 | 174           | 11 | 24 | 3671  |
| <b>Project Trips</b>            | 0              | 3    | 0  | 0             | 0  | 0  | 0              | 4    | 1   | 0             | 0  | 0  | 8     |
| Existing + Project              | 28             | 1181 | 26 | 22            | 5  | 31 | 83             | 925  | 276 | 177           | 7  | 18 | 2779  |
| Background + Project            | 64             | 1553 | 51 | 27            | 11 | 34 | 141            | 1179 | 410 | 174           | 11 | 24 | 3679  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 17  
 Intersection Name: Fair Oaks Ave & US 101 NB Ramps  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 04/04/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |     |                |      |     |               |    |    | Total |
|---------------------------------|----------------|------|----|---------------|----|-----|----------------|------|-----|---------------|----|----|-------|
|                                 | North Approach |      |    | East Approach |    |     | South Approach |      |     | West Approach |    |    |       |
|                                 | RT             | TH   | LT | RT            | TH | LT  | RT             | TH   | LT  | RT            | TH | LT |       |
| Existing Conditions             | 161            | 1219 | 0  | 299           | 1  | 712 | 0              | 992  | 244 | 0             | 0  | 0  | 3628  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1080 Stewart Dr                 |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1100 N. Mathilda Ave            |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1235 Bordeaux Dr                |                | 12   |    | 11            |    |     |                |      |     |               |    |    | 23    |
| 696 N. Mathilda Ave             |                | 9    |    |               |    |     | 8              |      |     |               |    |    | 17    |
| 725 S. Fair Oaks Ave            |                |      |    |               | 3  |     |                | 4    |     |               |    |    | 7     |
| 750 Lakeway Dr                  |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 767 N. Mathilda Ave             |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 830 E. El Camino Real           |                |      |    |               |    | 3   |                |      | 3   |               |    |    | 6     |
| 861 E. El Camino Real           |                |      |    |               |    | 4   |                |      | 4   |               |    |    | 8     |
| 1050 Kifer Rd                   |                |      |    |               |    |     |                |      | 62  |               |    |    | 62    |
| 1081 Innovation Way             |                |      |    |               |    |     |                |      | 7   |               |    |    | 7     |
| 1111 Lockheed Martin Way        |                | 16   |    |               |    |     |                | 5    |     |               |    |    | 21    |
| 1152 Bordeaux Dr                |                | 20   |    |               |    |     |                | 2    |     |               |    |    | 22    |
| 1184 N. Mathilda Ave            |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1212 Bordeaux Dr                |                | 6    |    |               |    |     |                | 1    |     |               |    |    | 7     |
| 1221 Crossman Ave               |                | 95   |    | 11            |    |     |                | 5    |     |               |    |    | 111   |
| 215 Moffett Park Dr             |                | 12   |    |               |    |     |                | 3    |     |               |    |    | 15    |
| 221 N. Mathilda Ave             |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 280 Santa Ana Ct                |                | 1    |    |               |    | 1   |                | 7    | 27  |               |    |    | 36    |
| 495 E. Java Dr & 549 Baltic Way |                | 88   |    | 10            |    |     |                | 6    |     |               |    |    | 104   |
| 520 Almanor Ave                 |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 589 W. Java Dr                  |                | 34   |    | 3             |    |     |                | 3    |     |               |    |    | 40    |
| 615 N. Mathilda Ave             |                |      |    |               |    |     |                | 3    |     |               |    |    | 3     |
| 684 W. Maude Ave                |                | 1    |    |               |    |     |                | 6    |     |               |    |    | 7     |
| 1120 Kifer Rd                   |                | 21   |    |               |    |     |                | 12   | 6   |               |    |    | 39    |
| 2502 Town Center Ln             |                | 45   |    |               |    | 14  |                | 49   |     |               |    |    | 108   |
| 675 Almanor Avenue              |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 1111, 1139 Karlstad Dr          | -11            | -19  |    | 29            |    |     |                | 44   |     |               |    |    | 43    |
| 423 E. Maude Ave                |                |      |    |               |    |     |                |      |     |               |    |    |       |
| 460 Persian Dr                  | -4             | -7   |    | 6             |    |     |                | 10   |     |               |    |    | 5     |
| 520-550, 610 Weddell Dr         | -4             | -6   |    | 75            |    |     |                | 109  |     |               |    |    | 174   |
| 625 E. Taylor Ave               |                | 2    |    |               |    | 1   |                | -1   | -1  |               |    |    | 1     |
| 680-698 E. Taylor Ave           |                | 5    |    |               |    | 3   |                | -5   | -4  |               |    |    | -1    |
| 701-755 E. Evelyn Ave           |                |      |    |               |    | 6   |                |      |     |               |    |    | 6     |
| 915 De Guigne Dr                |                | 14   |    |               |    |     |                | -11  | -16 |               |    |    | -13   |
| City Place (Phase 1-3)          |                | 27   |    | 5             | 9  | 7   |                | 27   | 5   |               |    |    | 80    |
| 840 E. El Camino Real           |                |      |    |               |    | 1   |                |      | 1   |               |    |    | 2     |
| Irvine Company - Pathline Park  | 2              | 1    |    |               |    |     |                | 12   |     |               |    |    | 15    |
| <i>Total Approved Trips</i>     | -17            | 377  | 0  | 150           | 9  | 43  | 0              | 295  | 98  | 0             | 0  | 0  | 955   |
| Background Conditions           | 144            | 1596 | 0  | 449           | 10 | 755 | 0              | 1287 | 342 | 0             | 0  | 0  | 4583  |
| <b>Project Trips</b>            | 0              | 3    | 0  | 0             | 0  | 0   | 0              | 5    | 0   | 0             | 0  | 0  | 8     |
| Existing + Project              | 161            | 1222 | 0  | 299           | 1  | 712 | 0              | 997  | 244 | 0             | 0  | 0  | 3636  |
| Background + Project            | 144            | 1599 | 0  | 449           | 10 | 755 | 0              | 1292 | 342 | 0             | 0  | 0  | 4591  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 18  
 Intersection Name: Fair Oaks Ave & Ahwanee Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 04/04/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |    |                |      |    |               |    |     | Total |
|---------------------------------|----------------|------|----|---------------|----|----|----------------|------|----|---------------|----|-----|-------|
|                                 | North Approach |      |    | East Approach |    |    | South Approach |      |    | West Approach |    |     |       |
|                                 | RT             | TH   | LT | RT            | TH | LT | RT             | TH   | LT | RT            | TH | LT  |       |
| Existing Conditions             | 244            | 2359 | 78 | 47            | 26 | 25 | 38             | 862  | 54 | 87            | 44 | 103 | 3967  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |    |                |      |    |               |    |     |       |
| 1080 Stewart Dr                 |                |      |    |               |    |    |                |      |    |               |    |     |       |
| 1100 N. Mathilda Ave            |                |      |    |               |    |    |                |      |    |               |    |     |       |
| 1235 Bordeaux Dr                |                |      |    |               |    |    |                |      |    |               |    |     |       |
| 696 N. Mathilda Ave             | 9              |      |    |               |    |    |                |      |    |               |    | 8   | 17    |
| 725 S. Fair Oaks Ave            |                | 5    |    |               |    |    |                | 8    |    |               |    |     | 13    |
| 750 Lakeway Dr                  |                |      |    |               |    |    |                |      |    |               |    |     |       |
| 767 N. Mathilda Ave             |                |      |    |               |    |    |                |      |    |               |    |     |       |
| 830 E. El Camino Real           |                | 7    |    |               |    |    |                | 7    |    |               |    |     | 14    |
| 861 E. El Camino Real           |                | 8    |    |               |    |    |                | 9    |    |               |    |     | 17    |
| 1050 Kifer Rd                   |                | 12   |    |               |    |    |                | 62   |    |               |    |     | 74    |
| 1081 Innovation Way             |                | 33   |    |               |    |    |                | 7    |    |               |    |     | 40    |
| 1111 Lockheed Martin Way        |                | 16   |    |               |    |    |                | 5    |    |               |    |     | 21    |
| 1152 Bordeaux Dr                |                | 20   |    |               |    |    |                | 2    |    |               |    |     | 22    |
| 1184 N. Mathilda Ave            |                |      |    |               |    |    |                |      |    |               |    |     |       |
| 1212 Bordeaux Dr                |                | 6    |    |               |    |    |                | 1    |    |               |    |     | 7     |
| 1221 Crossman Ave               |                | 29   |    |               |    |    |                | 5    |    |               |    |     | 34    |
| 215 Moffett Park Dr             |                | 12   |    |               |    |    |                | 3    |    |               |    |     | 15    |
| 221 N. Mathilda Ave             |                |      |    |               |    |    |                | 2    |    |               |    |     | 2     |
| 280 Santa Ana Ct                |                | 7    |    |               |    |    |                | 41   |    |               |    |     | 48    |
| 495 E. Java Dr & 549 Baltic Way |                | 33   |    |               |    |    |                | 6    |    |               |    |     | 39    |
| 520 Almanor Ave                 |                |      |    |               |    |    |                |      |    | 2             |    |     | 2     |
| 589 W. Java Dr                  |                | 17   |    |               |    |    |                | 3    |    |               |    |     | 20    |
| 615 N. Mathilda Ave             |                |      |    |               |    |    |                | 3    |    |               |    |     | 3     |
| 684 W. Maude Ave                |                | 1    |    |               |    |    |                | 6    |    |               |    |     | 7     |
| 1120 Kifer Rd                   |                | 32   |    |               |    |    |                | 18   |    |               |    |     | 50    |
| 2502 Town Center Ln             |                | 59   |    |               |    |    |                | 59   |    |               |    |     | 118   |
| 675 Almanor Avenue              |                |      |    |               |    |    |                |      |    |               |    |     |       |
| 1111, 1139 Karlstad Dr          |                | -6   |    |               |    |    |                | 17   |    |               |    |     | 11    |
| 423 E. Maude Ave                |                |      |    |               |    |    |                |      |    |               |    |     |       |
| 460 Persian Dr                  |                | -2   |    |               |    |    |                | 4    |    |               |    |     | 2     |
| 520-550, 610 Weddell Dr         |                | -2   |    |               |    |    |                | 41   |    |               |    |     | 39    |
| 625 E. Taylor Ave               |                | 4    |    |               |    |    |                | -3   |    |               |    |     | 1     |
| 680-698 E. Taylor Ave           |                | 12   |    |               |    |    |                | -12  |    |               |    |     |       |
| 701-755 E. Evelyn Ave           |                | 6    |    |               |    |    |                | -14  |    |               |    |     | -8    |
| 915 De Guigne Dr                |                | 34   |    |               |    |    |                | -26  |    |               |    |     | 8     |
| City Place (Phase 1-3)          | 3              | 20   | 5  | 6             | 8  | 1  | 9              | 6    | 3  | 4             | 8  | 7   | 80    |
| 840 E. El Camino Real           |                | 2    |    |               |    |    |                | 2    |    |               |    |     | 4     |
| Irvine Company - Pathline Park  |                | 1    |    |               |    |    |                | 3    |    |               |    |     | 4     |
| <i>Total Approved Trips</i>     | 12             | 366  | 5  | 6             | 8  | 1  | -5             | 279  | 3  | 6             | 8  | 15  | 704   |
| Background Conditions           | 256            | 2725 | 83 | 53            | 34 | 26 | 33             | 1141 | 57 | 93            | 52 | 118 | 4671  |
| <b>Project Trips</b>            | 0              | 3    | 0  | 0             | 0  | 2  | 0              | 0    | 0  | 12            | 2  | 5   | 24    |
| Existing + Project              | 244            | 2362 | 78 | 47            | 26 | 27 | 38             | 862  | 54 | 99            | 46 | 108 | 3991  |
| Background + Project            | 256            | 2728 | 83 | 53            | 34 | 28 | 33             | 1141 | 57 | 105           | 54 | 123 | 4695  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 19  
 Intersection Name: Fair Oaks Ave & Duane Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 04/04/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |     |               |     |     |                |      |    |               |     |    | Total |
|---------------------------------|----------------|------|-----|---------------|-----|-----|----------------|------|----|---------------|-----|----|-------|
|                                 | North Approach |      |     | East Approach |     |     | South Approach |      |    | West Approach |     |    |       |
|                                 | RT             | TH   | LT  | RT            | TH  | LT  | RT             | TH   | LT | RT            | TH  | LT |       |
| Existing Conditions             | 111            | 1884 | 215 | 130           | 117 | 243 | 212            | 726  | 11 | 23            | 94  | 56 | 3822  |
| <b>Approved Project Trips</b>   |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 1080 Stewart Dr                 |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 1100 N. Mathilda Ave            |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 1235 Bordeaux Dr                |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 696 N. Mathilda Ave             |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 725 S. Fair Oaks Ave            |                | 5    |     |               |     |     |                | 8    |    |               |     |    | 13    |
| 750 Lakeway Dr                  |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 767 N. Mathilda Ave             |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 830 E. El Camino Real           |                | 7    |     |               |     |     |                | 7    |    |               |     |    | 14    |
| 861 E. El Camino Real           |                | 8    |     |               |     |     |                | 9    |    |               |     |    | 17    |
| 1050 Kifer Rd                   |                | 12   |     |               |     |     |                | 62   |    |               |     |    | 74    |
| 1081 Innovation Way             |                | 33   |     |               |     |     |                | 7    |    |               |     |    | 40    |
| 1111 Lockheed Martin Way        | 6              | 10   |     |               |     |     |                | 4    |    |               |     | 1  | 21    |
| 1152 Bordeaux Dr                |                | 20   |     |               |     |     |                | 2    |    |               |     |    | 22    |
| 1184 N. Mathilda Ave            |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 1212 Bordeaux Dr                |                | 6    |     |               |     |     |                | 1    |    |               |     |    | 7     |
| 1221 Crossman Ave               | 3              | 25   | 1   |               |     |     |                | 4    |    |               |     | 1  | 34    |
| 215 Moffett Park Dr             |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 221 N. Mathilda Ave             |                |      |     |               |     |     |                | 2    |    |               |     |    | 2     |
| 280 Santa Ana Ct                |                | 7    |     |               |     |     |                | 41   |    |               |     |    | 48    |
| 495 E. Java Dr & 549 Baltic Way |                | 33   |     |               |     |     |                | 6    |    |               |     |    | 39    |
| 520 Almanor Ave                 |                | 1    | 1   |               |     |     |                |      |    |               |     |    | 2     |
| 589 W. Java Dr                  |                | 17   |     |               |     |     |                | 3    |    |               |     |    | 20    |
| 615 N. Mathilda Ave             |                |      |     |               |     |     |                | 3    |    |               |     |    | 3     |
| 684 W. Maude Ave                |                | 1    |     |               |     |     |                | 6    |    |               |     |    | 7     |
| 1120 Kifer Rd                   |                | 32   |     |               |     |     |                | 18   |    |               |     |    | 50    |
| 2502 Town Center Ln             |                | 59   |     |               | 23  |     | 25             | 59   |    |               |     |    | 166   |
| 675 Almanor Avenue              |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 1111, 1139 Karlstad Dr          |                | -6   |     |               |     |     |                | 17   |    |               |     |    | 11    |
| 423 E. Maude Ave                |                |      |     |               |     |     |                |      |    |               |     |    |       |
| 460 Persian Dr                  |                | -2   |     |               |     |     |                | 4    |    |               |     |    | 2     |
| 520-550, 610 Weddell Dr         |                | -2   |     |               |     |     |                | 41   |    |               |     |    | 39    |
| 625 E. Taylor Ave               |                | 4    |     |               |     |     |                | -3   |    |               |     |    | 1     |
| 680-698 E. Taylor Ave           |                | 12   |     |               |     |     |                | -12  |    |               |     |    |       |
| 701-755 E. Evelyn Ave           |                | 6    |     |               |     |     |                | -14  |    |               |     |    | -8    |
| 915 De Guigne Dr                |                | 15   | 19  |               | -17 |     |                | -9   |    |               |     |    | 8     |
| City Place (Phase 1-3)          | 13             | 39   | 8   | 3             | 8   | 4   | 3              | 5    | 9  | 5             | 4   | 1  | 102   |
| 840 E. El Camino Real           |                | 2    |     |               |     |     |                | 2    |    |               |     |    | 4     |
| Irvine Company - Pathline Park  |                | 1    |     |               |     |     |                | 3    |    |               |     |    | 4     |
| <i>Total Approved Trips</i>     | 22             | 345  | 29  | -14           | 8   | 27  | 28             | 276  | 9  | 5             | 4   | 3  | 742   |
| Background Conditions           | 133            | 2229 | 244 | 116           | 125 | 270 | 240            | 1002 | 20 | 28            | 98  | 59 | 4564  |
| <b>Project Trips</b>            | 0              | 17   | 0   | 0             | 0   | 2   | 0              | 0    | 0  | 0             | 2   | 0  | 21    |
| Existing + Project              | 111            | 1901 | 215 | 130           | 117 | 245 | 212            | 726  | 11 | 23            | 96  | 56 | 3843  |
| Background + Project            | 133            | 2246 | 244 | 116           | 125 | 272 | 240            | 1002 | 20 | 28            | 100 | 59 | 4585  |

## Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 20  
 Intersection Name: Fair Oaks Ave & Wolfe Rd  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 04/04/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |    |                |     |    |               |    |     | Total |
|---------------------------------|----------------|------|----|---------------|----|----|----------------|-----|----|---------------|----|-----|-------|
|                                 | North Approach |      |    | East Approach |    |    | South Approach |     |    | West Approach |    |     |       |
|                                 | RT             | TH   | LT | RT            | TH | LT | RT             | TH  | LT | RT            | TH | LT  |       |
| Existing Conditions             | 1096           | 1056 | 0  | 0             | 0  | 0  | 0              | 399 | 0  | 9             | 0  | 615 | 3175  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 1080 Stewart Dr                 |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 1100 N. Mathilda Ave            |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 1235 Bordeaux Dr                |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 696 N. Mathilda Ave             |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 725 S. Fair Oaks Ave            | 5              |      |    |               |    |    |                |     |    |               |    | 8   | 13    |
| 750 Lakeway Dr                  |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 767 N. Mathilda Ave             |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 830 E. El Camino Real           | 7              |      |    |               |    |    |                |     |    |               |    | 7   | 14    |
| 861 E. El Camino Real           | 8              |      |    |               |    |    |                |     |    |               |    | 9   | 17    |
| 1050 Kifer Rd                   |                | 12   |    |               |    |    |                | 62  |    |               |    |     | 74    |
| 1081 Innovation Way             |                | 33   |    |               |    |    |                | 7   |    |               |    |     | 40    |
| 1111 Lockheed Martin Way        |                | 10   |    |               |    |    |                | 4   |    |               |    |     | 14    |
| 1152 Bordeaux Dr                | 10             | 10   |    |               |    |    |                | 1   |    |               |    | 1   | 22    |
| 1184 N. Mathilda Ave            |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 1212 Bordeaux Dr                |                | 6    |    |               |    |    |                | 1   |    |               |    |     | 7     |
| 1221 Crossman Ave               | 14             | 11   |    |               |    |    |                | 2   |    |               |    | 2   | 29    |
| 215 Moffett Park Dr             |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 221 N. Mathilda Ave             |                |      |    |               |    |    |                | 2   |    |               |    |     | 2     |
| 280 Santa Ana Ct                |                | 7    |    |               |    |    |                | 41  |    |               |    |     | 48    |
| 495 E. Java Dr & 549 Baltic Way |                | 33   |    |               |    |    |                | 6   |    |               |    |     | 39    |
| 520 Almanor Ave                 |                | 1    |    |               |    |    |                |     |    |               |    |     | 1     |
| 589 W. Java Dr                  | 17             |      |    |               |    |    |                |     |    |               |    | 3   | 20    |
| 615 N. Mathilda Ave             |                |      |    |               |    |    |                |     |    |               |    | 3   | 3     |
| 684 W. Maude Ave                | 1              |      |    |               |    |    |                |     |    |               |    | 6   | 7     |
| 1120 Kifer Rd                   |                | 32   |    |               |    |    |                | 18  |    |               |    |     | 50    |
| 2502 Town Center Ln             | 82             |      |    |               |    |    |                |     |    |               |    | 84  | 166   |
| 675 Almanor Avenue              |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 1111, 1139 Karlstad Dr          | -4             | -2   |    |               |    |    |                | 6   |    |               |    | 11  | 11    |
| 423 E. Maude Ave                |                |      |    |               |    |    |                |     |    |               |    |     |       |
| 460 Persian Dr                  | -1             | -1   |    |               |    |    |                | 1   |    |               |    | 3   | 2     |
| 520-550, 610 Weddell Dr         | -1             | -1   |    |               |    |    |                | 15  |    |               |    | 26  | 39    |
| 625 E. Taylor Ave               | 4              |      |    |               |    |    |                |     |    |               |    | -3  | 1     |
| 680-698 E. Taylor Ave           | 12             |      |    |               |    |    |                |     |    |               |    | -12 |       |
| 701-755 E. Evelyn Ave           | 6              |      |    |               |    |    |                |     |    |               |    | -14 | -8    |
| 915 De Guigne Dr                |                | 15   |    |               |    |    |                | -9  |    |               |    |     | 6     |
| City Place (Phase 1-3)          | 9              | 36   |    |               |    |    |                | 5   |    | 4             |    | 2   | 56    |
| 840 E. El Camino Real           | 2              |      |    |               |    |    |                |     |    |               |    | 2   | 4     |
| Irvine Company - Pathline Park  | 1              |      |    |               |    |    |                |     |    |               |    | 3   | 4     |
| <i>Total Approved Trips</i>     | 172            | 202  | 0  | 0             | 0  | 0  | 0              | 162 | 0  | 4             | 0  | 141 | 681   |
| Background Conditions           | 1268           | 1258 | 0  | 0             | 0  | 0  | 0              | 561 | 0  | 13            | 0  | 756 | 3856  |
| <b>Project Trips</b>            | 12             | 6    | 0  | 0             | 0  | 0  | 0              | 0   | 0  | 0             | 0  | 0   | 18    |
| Existing + Project              | 1108           | 1062 | 0  | 0             | 0  | 0  | 0              | 399 | 0  | 9             | 0  | 615 | 3193  |
| Background + Project            | 1280           | 1264 | 0  | 0             | 0  | 0  | 0              | 561 | 0  | 13            | 0  | 756 | 3874  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 21  
 Intersection Name: Fair Oaks Ave & Maude Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 05/16/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |     |    |                |     |    |               |     |     | Total |
|---------------------------------|----------------|------|----|---------------|-----|----|----------------|-----|----|---------------|-----|-----|-------|
|                                 | North Approach |      |    | East Approach |     |    | South Approach |     |    | West Approach |     |     |       |
|                                 | RT             | TH   | LT | RT            | TH  | LT | RT             | TH  | LT | RT            | TH  | LT  |       |
| Existing Conditions             | 87             | 1041 | 6  | 13            | 94  | 30 | 14             | 500 | 82 | 128           | 173 | 101 | 2269  |
| <b>Approved Project Trips</b>   |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 1080 Stewart Dr                 |                |      |    |               | 8   |    |                |     |    |               | 7   |     | 15    |
| 1100 N. Mathilda Ave            |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 1235 Bordeaux Dr                |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 696 N. Mathilda Ave             |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 725 S. Fair Oaks Ave            |                | 5    |    |               |     |    |                | 8   |    |               |     |     | 13    |
| 750 Lakeway Dr                  |                |      |    |               | 6   |    |                |     |    |               | 5   |     | 11    |
| 767 N. Mathilda Ave             |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 830 E. El Camino Real           |                | 7    |    |               |     |    |                | 7   |    |               |     |     | 14    |
| 861 E. El Camino Real           |                | 8    |    |               |     |    |                | 9   |    |               |     |     | 17    |
| 1050 Kifer Rd                   |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 1081 Innovation Way             |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 1111 Lockheed Martin Way        |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 1152 Bordeaux Dr                |                | 10   |    |               |     |    |                | 1   |    |               |     |     | 11    |
| 1184 N. Mathilda Ave            |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 1212 Bordeaux Dr                |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 1221 Crossman Ave               | 4              | 11   |    |               |     |    |                | 2   |    |               |     | 1   | 18    |
| 215 Moffett Park Dr             |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 221 N. Mathilda Ave             |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 280 Santa Ana Ct                |                |      |    |               | 7   |    |                |     |    |               | 1   |     | 8     |
| 495 E. Java Dr & 549 Baltic Way |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 520 Almanor Ave                 |                |      |    |               |     |    |                |     |    |               | 1   |     | 1     |
| 589 W. Java Dr                  |                | 17   |    |               |     |    |                | 3   |    |               |     |     | 20    |
| 615 N. Mathilda Ave             |                |      |    |               |     |    |                |     |    |               | 1   | 3   | 4     |
| 684 W. Maude Ave                | 1              |      |    |               | 1   |    |                |     |    | 6             | 6   |     | 14    |
| 1120 Kifer Rd                   |                |      |    |               | -6  |    |                |     |    | -4            |     |     | -10   |
| 2502 Town Center Ln             |                | 82   |    |               |     |    |                | 84  |    |               |     |     | 166   |
| 675 Almanor Avenue              |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 1111, 1139 Karlstad Dr          |                | -4   |    |               |     |    |                | 11  |    |               |     |     | 7     |
| 423 E. Maude Ave                |                |      |    |               |     |    |                |     |    |               |     |     |       |
| 460 Persian Dr                  |                | -1   |    |               |     |    |                | 3   |    |               |     |     | 2     |
| 520-550, 610 Weddell Dr         |                | -1   |    |               |     |    |                | 26  |    |               |     |     | 25    |
| 625 E. Taylor Ave               |                | 4    |    |               |     |    |                | -3  |    | 1             |     |     | 2     |
| 680-698 E. Taylor Ave           |                | 12   |    |               |     |    |                | -12 | -2 | 2             |     |     |       |
| 701-755 E. Evelyn Ave           |                | 6    |    |               |     |    |                | -14 |    |               |     |     | -8    |
| 915 De Guigne Dr                |                |      |    |               | -16 |    |                |     |    |               | 21  |     | 5     |
| City Place (Phase 1-3)          | 1              | 6    | 9  | 8             | 5   |    | 6              | 6   |    | 4             | 2   | 9   | 56    |
| 840 E. El Camino Real           |                | 2    |    |               |     |    |                | 2   |    |               |     |     | 4     |
| Irvine Company - Pathline Park  | 1              |      |    |               | 2   |    |                |     |    |               | 12  | 3   | 18    |
| <i>Total Approved Trips</i>     | 7              | 164  | 9  | 8             | 7   | 0  | 6              | 133 | -2 | 7             | 52  | 22  | 413   |
| Background Conditions           | 94             | 1205 | 15 | 21            | 101 | 30 | 20             | 633 | 80 | 135           | 225 | 123 | 2682  |
| <b>Project Trips</b>            | 6              | 6    | 0  | 0             | 3   | 0  | 0              | 0   | 5  | 0             | 0   | 0   | 20    |
| Existing + Project              | 93             | 1047 | 6  | 13            | 97  | 30 | 14             | 500 | 87 | 128           | 173 | 101 | 2289  |
| Background + Project            | 100            | 1211 | 15 | 21            | 104 | 30 | 20             | 633 | 85 | 135           | 225 | 123 | 2702  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 22  
 Intersection Name: Wolfe Rd & Maude Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 05/25/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |    |               |    |    |                |     |     |               |    |    | Total |
|---------------------------------|----------------|------|----|---------------|----|----|----------------|-----|-----|---------------|----|----|-------|
|                                 | North Approach |      |    | East Approach |    |    | South Approach |     |     | West Approach |    |    |       |
|                                 | RT             | TH   | LT | RT            | TH | LT | RT             | TH  | LT  | RT            | TH | LT |       |
| Existing Conditions             | 9              | 988  | 10 | 12            | 2  | 6  | 3              | 331 | 102 | 256           | 1  | 11 | 1731  |
| <b>Approved Project Trips</b>   |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 1080 Stewart Dr                 |                |      |    |               |    |    |                |     | 8   | 7             |    |    | 15    |
| 1100 N. Mathilda Ave            |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 1235 Bordeaux Dr                |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 696 N. Mathilda Ave             |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 725 S. Fair Oaks Ave            |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 750 Lakeway Dr                  |                |      |    |               |    |    |                |     | 6   | 5             |    |    | 11    |
| 767 N. Mathilda Ave             |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 830 E. El Camino Real           |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 861 E. El Camino Real           |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 1050 Kifer Rd                   |                | 12   |    |               |    |    |                | 62  |     |               |    |    | 74    |
| 1081 Innovation Way             |                | 33   |    |               |    |    |                | 7   |     |               |    |    | 40    |
| 1111 Lockheed Martin Way        |                | 10   |    |               |    |    |                | 4   |     |               |    |    | 14    |
| 1152 Bordeaux Dr                |                | 10   |    |               |    |    |                | 1   |     |               |    |    | 11    |
| 1184 N. Mathilda Ave            |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 1212 Bordeaux Dr                |                | 6    |    |               |    |    |                | 1   |     |               |    |    | 7     |
| 1221 Crossman Ave               |                | 11   |    |               |    |    |                | 2   |     |               |    |    | 13    |
| 215 Moffett Park Dr             |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 221 N. Mathilda Ave             |                |      |    |               |    |    |                | 2   |     |               |    |    | 2     |
| 280 Santa Ana Ct                |                | 7    |    |               |    |    |                | 41  | 7   | 1             |    |    | 56    |
| 495 E. Java Dr & 549 Baltic Way |                | 33   |    |               |    |    |                | 6   |     |               |    |    | 39    |
| 520 Almanor Ave                 |                | 1    |    |               |    |    |                |     |     | 1             |    |    | 2     |
| 589 W. Java Dr                  |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 615 N. Mathilda Ave             |                |      |    |               |    |    |                |     |     | 1             |    |    | 1     |
| 684 W. Maude Ave                |                |      |    |               |    |    |                |     | 1   | 6             |    |    | 7     |
| 1120 Kifer Rd                   |                | 32   |    |               |    |    |                | 18  | -6  | -4            |    |    | 40    |
| 2502 Town Center Ln             |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 675 Almanor Avenue              |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 1111, 1139 Karlstad Dr          |                | -2   |    |               |    |    |                | 6   |     |               |    |    | 4     |
| 423 E. Maude Ave                |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 460 Persian Dr                  |                | -1   |    |               |    |    |                | 1   |     |               |    |    |       |
| 520-550, 610 Weddell Dr         |                | -1   |    |               |    |    |                | 15  |     |               |    |    | 14    |
| 625 E. Taylor Ave               |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 680-698 E. Taylor Ave           |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 701-755 E. Evelyn Ave           |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 915 De Guigne Dr                |                | 15   |    |               |    |    |                | -9  | -16 | 21            |    |    | 11    |
| City Place (Phase 1-3)          |                |      |    |               |    |    |                |     |     |               |    |    |       |
| 840 E. El Camino Real           |                |      |    |               |    |    |                |     |     |               |    |    |       |
| Irvine Company - Pathline Park  |                |      |    |               |    |    |                |     | 2   | 12            |    |    | 14    |
| <i>Total Approved Trips</i>     | 0              | 166  | 0  | 0             | 0  | 0  | 0              | 157 | 2   | 50            | 0  | 0  | 375   |
| Background Conditions           | 9              | 1154 | 10 | 12            | 2  | 6  | 3              | 488 | 104 | 306           | 1  | 11 | 2106  |
| <b>Project Trips</b>            | 0              | 6    | 0  | 0             | 0  | 0  | 0              | 0   | 3   | 0             | 0  | 0  | 9     |
| Existing + Project              | 9              | 994  | 10 | 12            | 2  | 6  | 3              | 331 | 105 | 256           | 1  | 11 | 1740  |
| Background + Project            | 9              | 1160 | 10 | 12            | 2  | 6  | 3              | 488 | 107 | 306           | 1  | 11 | 2115  |



Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 23  
 Intersection Name: Wolfe Rd & Arques Ave  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 04/04/17  
 Scenario: Summit School TIA

| Scenario:                       | Movements      |      |     |               |     |     |                |     |     |               |     |    | Total |
|---------------------------------|----------------|------|-----|---------------|-----|-----|----------------|-----|-----|---------------|-----|----|-------|
|                                 | North Approach |      |     | East Approach |     |     | South Approach |     |     | West Approach |     |    |       |
|                                 | RT             | TH   | LT  | RT            | TH  | LT  | RT             | TH  | LT  | RT            | TH  | LT |       |
| Existing Conditions             | 62             | 1059 | 143 | 104           | 341 | 334 | 135            | 388 | 43  | 37            | 194 | 64 | 2904  |
| <b>Approved Project Trips</b>   |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 1080 Stewart Dr                 |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 1100 N. Mathilda Ave            |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 1235 Bordeaux Dr                |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 696 N. Mathilda Ave             |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 725 S. Fair Oaks Ave            |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 750 Lakeway Dr                  |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 767 N. Mathilda Ave             |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 830 E. El Camino Real           |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 861 E. El Camino Real           |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 1050 Kifer Rd                   |                | 14   |     |               |     |     |                | 75  |     |               |     |    | 89    |
| 1081 Innovation Way             |                | 33   |     |               |     |     |                | 7   |     |               |     |    | 40    |
| 1111 Lockheed Martin Way        |                | 10   |     |               |     |     |                | 4   |     |               |     |    | 14    |
| 1152 Bordeaux Dr                |                | 10   |     |               |     |     |                | 1   |     |               |     |    | 11    |
| 1184 N. Mathilda Ave            |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 1212 Bordeaux Dr                |                | 6    |     |               |     |     |                | 1   |     |               |     |    | 7     |
| 1221 Crossman Ave               |                | 11   |     |               |     |     |                | 2   |     |               |     |    | 13    |
| 215 Moffett Park Dr             |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 221 N. Mathilda Ave             |                |      |     |               |     |     |                |     | 2   |               |     |    | 2     |
| 280 Santa Ana Ct                |                | 2    | 6   | 23            | 12  | 38  | 16             | 25  | 64  | 1             | 7   |    | 194   |
| 495 E. Java Dr & 549 Baltic Way |                | 33   |     |               |     |     |                | 6   |     |               |     |    | 39    |
| 520 Almanor Ave                 |                | 2    |     |               |     |     |                |     |     |               |     |    | 2     |
| 589 W. Java Dr                  |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 615 N. Mathilda Ave             |                | 1    |     |               |     |     |                |     |     |               |     |    | 1     |
| 684 W. Maude Ave                |                | 6    |     |               |     |     |                | 1   |     |               |     |    | 7     |
| 1120 Kifer Rd                   |                | 28   |     |               |     |     |                | 12  |     |               |     |    | 40    |
| 2502 Town Center Ln             |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 675 Almanor Avenue              |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 1111, 1139 Karlstad Dr          |                | -2   |     |               |     |     |                | 6   |     |               |     |    | 4     |
| 423 E. Maude Ave                |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 460 Persian Dr                  |                | -1   |     |               |     |     |                | 1   |     |               |     |    |       |
| 520-550, 610 Weddell Dr         |                | -1   |     |               |     |     |                | 15  |     |               |     |    | 14    |
| 625 E. Taylor Ave               |                |      |     |               | 1   |     |                |     |     |               |     |    | 1     |
| 680-698 E. Taylor Ave           |                |      |     |               | 2   |     |                |     |     |               | -2  |    |       |
| 701-755 E. Evelyn Ave           |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 915 De Guigne Dr                |                | -5   |     |               |     | -2  | 3              |     |     |               |     |    | -4    |
| City Place (Phase 1-3)          |                |      |     |               |     |     |                |     |     |               |     |    |       |
| 840 E. El Camino Real           |                |      |     |               |     |     |                |     |     |               |     |    |       |
| Irvine Company - Pathline Park  |                | 12   |     |               |     |     |                | 2   |     |               |     |    | 14    |
| <i>Total Approved Trips</i>     | 0              | 159  | 6   | 23            | 15  | 36  | 19             | 160 | 64  | 1             | 5   | 0  | 488   |
| Background Conditions           | 62             | 1218 | 149 | 127           | 356 | 370 | 154            | 548 | 107 | 38            | 199 | 64 | 3392  |
| <b>Project Trips</b>            | 0              | 6    | 0   | 0             | 0   | 0   | 0              | 3   | 0   | 0             | 0   | 0  | 9     |
| Existing + Project              | 62             | 1065 | 143 | 104           | 341 | 334 | 135            | 391 | 43  | 37            | 194 | 64 | 2913  |
| Background + Project            | 62             | 1224 | 149 | 127           | 356 | 370 | 154            | 551 | 107 | 38            | 199 | 64 | 3401  |

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 24  
 Intersection Name: Wolfe Rd & Central Expwy Ramps  
 Peak Hour: Commute PM Date of Analysis: 01/05/18  
 Count Date: 04/04/17  
 Scenario: Summit School TIA

| Scenario:           | Movements      |      |    |               |    |     |                |     |     |               |    |    | Total |
|---------------------|----------------|------|----|---------------|----|-----|----------------|-----|-----|---------------|----|----|-------|
|                     | North Approach |      |    | East Approach |    |     | South Approach |     |     | West Approach |    |    |       |
|                     | RT             | TH   | LT | RT            | TH | LT  | RT             | TH  | LT  | RT            | TH | LT |       |
| Existing Conditions | 77             | 1385 | 47 | 50            | 0  | 452 | 94             | 502 | 103 | 565           | 1  | 78 | 3354  |

**Approved Project Trips**




















|                                 |    |      |     |    |   |     |    |     |     |     |   |    |      |
|---------------------------------|----|------|-----|----|---|-----|----|-----|-----|-----|---|----|------|
| 1080 Stewart Dr                 |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 1100 N. Mathilda Ave            |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 1235 Bordeaux Dr                |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 696 N. Mathilda Ave             |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 725 S. Fair Oaks Ave            |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 750 Lakeway Dr                  |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 767 N. Mathilda Ave             |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 830 E. El Camino Real           |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 861 E. El Camino Real           |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 1050 Kifer Rd                   |    | 14   |     |    |   |     | 75 | 21  |     | 4   |   |    | 114  |
| 1081 Innovation Way             |    | 33   |     |    |   |     | 7  |     |     |     |   |    | 40   |
| 1111 Lockheed Martin Way        |    | 10   |     |    |   |     | 4  |     |     |     |   |    | 14   |
| 1152 Bordeaux Dr                |    | 10   |     |    |   |     | 1  |     |     |     |   |    | 11   |
| 1184 N. Mathilda Ave            |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 1212 Bordeaux Dr                |    | 6    |     |    |   |     | 1  |     |     |     |   |    | 7    |
| 1221 Crossman Ave               |    | 11   |     |    |   |     | 2  |     |     |     |   |    | 13   |
| 215 Moffett Park Dr             |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 221 N. Mathilda Ave             |    |      |     |    |   |     |    |     |     |     |   | 2  | 2    |
| 280 Santa Ana Ct                | 15 | 22   | 56  | 6  |   | 32  | 10 |     |     |     |   | 6  | 147  |
| 495 E. Java Dr & 549 Baltic Way |    | 33   |     |    |   |     | 6  |     |     |     |   |    | 39   |
| 520 Almanor Ave                 |    | 2    |     |    |   |     |    |     |     |     |   |    | 2    |
| 589 W. Java Dr                  |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 615 N. Mathilda Ave             |    | 1    |     |    |   |     |    |     |     |     |   |    | 1    |
| 684 W. Maude Ave                |    | 6    |     |    |   |     | 1  |     |     |     |   |    | 7    |
| 1120 Kifer Rd                   |    | 28   |     |    |   |     | 12 | 13  |     | 27  |   |    | 80   |
| 2502 Town Center Ln             |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 675 Almanor Avenue              |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 1111, 1139 Karlstad Dr          |    | -2   |     |    |   |     | 6  |     |     |     |   |    | 4    |
| 423 E. Maude Ave                |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 460 Persian Dr                  |    | -1   |     |    |   |     | 1  |     |     |     |   |    |      |
| 520-550, 610 Weddell Dr         |    | -1   |     |    |   |     | 15 |     |     |     |   |    | 14   |
| 625 E. Taylor Ave               |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 680-698 E. Taylor Ave           |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 701-755 E. Evelyn Ave           |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 915 De Guigne Dr                | -3 | -4   |     |    |   |     | 5  |     |     |     |   | 7  | 5    |
| City Place (Phase 1-3)          |    |      |     |    |   |     |    |     |     |     |   |    |      |
| 840 E. El Camino Real           |    |      |     |    |   |     |    |     |     |     |   |    |      |
| Irvine Company - Pathline Park  |    | 12   |     |    |   |     | 2  |     |     |     |   |    | 14   |
| <i>Total Approved Trips</i>     | 12 | 180  | 56  | 6  | 0 | 32  | 0  | 148 | 34  | 31  | 0 | 15 | 514  |
| Background Conditions           | 89 | 1565 | 103 | 56 | 0 | 484 | 94 | 650 | 137 | 596 | 1 | 93 | 3868 |
| <b>Project Trips</b>            | 0  | 3    | 3   | 0  | 0 | 0   | 0  | 3   | 3   | 3   | 0 | 0  | 15   |
| Existing + Project              | 77 | 1388 | 50  | 50 | 0 | 452 | 94 | 505 | 106 | 568 | 1 | 78 | 3369 |
| Background + Project            | 89 | 1568 | 106 | 56 | 0 | 484 | 94 | 653 | 140 | 599 | 1 | 93 | 3883 |

**Appendix C**  
**Intersection Level of Service Calculations**

## HCM Signalized Intersection Capacity Analysis




























## 1: Mathilda Ave &amp; SR 237 WB On-Ramp/SR 237 WB Off-Ramp

12/19/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |   |   |  |  |  |  |  |   |   |  |  |
| Traffic Volume (vph)              | 0   | 0   | 0   | 531   | 36  | 273   | 134  | 2342  | 0   | 0   | 254   | 99  |
| Future Volume (vph)               | 0   | 0   | 0   | 531   | 36  | 273   | 134  | 2342  | 0   | 0   | 254   | 99  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   |   |   | 4.9   | 4.9   | 4.9   | 5.3  | 5.3   |   |   | 5.3   |   |
| Lane Util. Factor                 |   |   |   | 0.95  | 0.95  | 1.00  | 1.00   | 0.86  |   |   | 0.86  |   |
| Frbp, ped/bikes                   |   |   |   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |   |   | 1.00  |   |
| Flpb, ped/bikes                   |   |   |   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |   |   | 1.00  |   |
| Frt                               |   |   |   | 1.00  | 1.00  | 0.85  | 1.00   | 1.00  |   |   | 0.96  |   |
| Flt Protected                     |   |   |   | 0.95  | 0.96  | 1.00  | 0.95   | 1.00  |   |   | 1.00  |   |
| Satd. Flow (prot)                 |   |   |   | 1681  | 1696  | 1583  | 1770   | 6408  |   |   | 6138  |   |
| Flt Permitted                     |   |   |   | 0.95  | 0.96  | 1.00  | 0.95   | 1.00  |   |   | 1.00  |   |
| Satd. Flow (perm)                 |   |   |   | 1681  | 1696  | 1583  | 1770   | 6408  |   |   | 6138  |   |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Adj. Flow (vph)                   | 0   | 0   | 0   | 531   | 36  | 273   | 134  | 2342  | 0   | 0   | 254   | 99  |
| RTOR Reduction (vph)              | 0   | 0   | 0   | 0   | 0   | 55  | 0  | 0   | 0   | 0   | 90  | 0   |
| Lane Group Flow (vph)             | 0   | 0   | 0   | 281   | 286   | 218   | 134  | 2342  | 0   | 0   | 263   | 0   |
| Confl. Peds. (#/hr)               |   |   |   |   |   |   |  |   | 12  |   |   |   |
| Turn Type                         |   |   |   | Split   | NA  | Perm  | Prot   | NA  |   |   | NA  |   |
| Protected Phases                  |   |   |   | 8   | 8   |   | 5  | 2   |   |   | 6   |   |
| Permitted Phases                  |   |   |   |   |   | 8   |  |   |   |   |   |   |
| Actuated Green, G (s)             |   |   |   | 25.1  | 25.1  | 25.1  | 68.9   | 84.7  |   |   | 10.5  |   |
| Effective Green, g (s)            |   |   |   | 25.1  | 25.1  | 25.1  | 68.9   | 84.7  |   |   | 10.5  |   |
| Actuated g/C Ratio                |   |   |   | 0.21  | 0.21  | 0.21  | 0.57   | 0.71  |   |   | 0.09  |   |
| Clearance Time (s)                |   |   |   | 4.9   | 4.9   | 4.9   | 5.3  | 5.3   |   |   | 5.3   |   |
| Vehicle Extension (s)             |   |   |   | 3.0   | 3.0   | 3.0   | 3.0  | 3.0   |   |   | 3.0   |   |
| Lane Grp Cap (vph)                |   |   |   | 351   | 354   | 331   | 1016   | 4522  |   |   | 537   |   |
| v/s Ratio Prot                    |   |   |   | 0.17  | c0.17   |   | 0.08   | c0.37   |   |   | 0.04  |   |
| v/s Ratio Perm                    |   |   |   |   |   | 0.14  |  |   |   |   |   |   |
| v/c Ratio                         |   |   |   | 0.80  | 0.81  | 0.66  | 0.13   | 0.52  |   |   | 0.49  |   |
| Uniform Delay, d1                 |   |   |   | 45.1  | 45.2  | 43.5  | 11.8   | 8.2   |   |   | 52.2  |   |
| Progression Factor                |   |   |   | 1.00  | 1.00  | 1.00  | 1.17   | 0.72  |   |   | 1.12  |   |
| Incremental Delay, d2             |   |   |   | 17.3  | 17.7  | 9.9   | 0.1  | 0.4   |   |   | 0.7   |   |
| Delay (s)                         |   |   |   | 62.3  | 62.9  | 53.4  | 13.8   | 6.2   |   |   | 58.9  |   |
| Level of Service                  |   |   |   | E   | E   | D   | B  | A   |   |   | E   |   |
| Approach Delay (s)                |   | 0.0   |   |   | 59.6  |   |  | 6.7   |   |   | 58.9  |   |
| Approach LOS                      |   | A   |   |   | E   |   |  | A   |   |   | E   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 23.8  |   | HCM 2000 Level of Service   |   |  |   |   |   | C   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.61  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 120.0   |   | Sum of lost time (s)  |   |  |   |   | 15.5  |   |   |
| Intersection Capacity Utilization |   |   | 97.1%   |   | ICU Level of Service  |   |  |   |   | F   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |
| c Critical Lane Group             |   |   |   |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

























12/19/2017

|                                   |    |    |  |  |  |  |  |    |  |    |    |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |   |   |   |   |   |  |     |  |   |     |   |      |
| Traffic Volume (vph)              | 845   | 0   | 72  | 0   | 0   | 0   | 0  | 1631  | 732   | 45  | 740   | 0   |      |
| Future Volume (vph)               | 845   | 0   | 72  | 0   | 0   | 0   | 0  | 1631  | 732   | 45  | 740   | 0   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Lane Util. Factor                 | 0.91  | 0.91  |   |   |   |   |  | 0.81  | 1.00  | 1.00  | 0.91  |   |      |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 0.99  | 1.00  | 1.00  |   |      |
| Flpb, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 1.00  | 1.00  |   |      |
| Frt                               | 1.00  | 0.96  |   |   |   |   |  | 1.00  | 0.85  | 1.00  | 1.00  |   |      |
| Flt Protected                     | 0.95  | 0.96  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 3221  | 1574  |   |   |   |   |  | 7544  | 1561  | 1770  | 5085  |   |      |
| Flt Permitted                     | 0.95  | 0.96  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 3221  | 1574  |   |   |   |   |  | 7544  | 1561  | 1770  | 5085  |   |      |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |      |
| Adj. Flow (vph)                   | 845   | 0   | 72  | 0   | 0   | 0   | 0  | 1631  | 732   | 45  | 740   | 0   |      |
| RTOR Reduction (vph)              | 0   | 65  | 0   | 0   | 0   | 0   | 0  | 0   | 338   | 0   | 0   | 0   |      |
| Lane Group Flow (vph)             | 617   | 235   | 0   | 0   | 0   | 0   | 0  | 1631  | 394   | 45  | 740   | 0   |      |
| Confl. Bikes (#/hr)               |   |   |   |   |   |   |  |   | 5   |   |   |   |      |
| Turn Type                         | Split   | NA  |   |   |   |   |  | NA  | Perm  | Prot  | NA  |   |      |
| Protected Phases                  | 4   | 4   |   |   |   |   |  | 2   |   | 1   | 6   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   | 2   |   |   |   |      |
| Actuated Green, G (s)             | 30.3  | 30.3  |   |   |   |   |  | 64.6  | 64.6  | 6.6   | 77.5  |   |      |
| Effective Green, g (s)            | 30.3  | 30.3  |   |   |   |   |  | 64.6  | 64.6  | 6.6   | 77.5  |   |      |
| Actuated g/C Ratio                | 0.25  | 0.25  |   |   |   |   |  | 0.54  | 0.54  | 0.05  | 0.65  |   |      |
| Clearance Time (s)                | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Vehicle Extension (s)             | 3.0   | 3.0   |   |   |   |   |  | 3.0   | 3.0   | 3.0   | 3.0   |   |      |
| Lane Grp Cap (vph)                | 813   | 397   |   |   |   |   |  | 4061  | 840   | 97  | 3284  |   |      |
| v/s Ratio Prot                    | c0.19   | 0.15  |   |   |   |   |  | 0.22  |   | c0.03   | 0.15  |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   | c0.25   |   |   |   |      |
| v/c Ratio                         | 0.76  | 0.59  |   |   |   |   |  | 0.40  | 0.47  | 0.46  | 0.23  |   |      |
| Uniform Delay, d1                 | 41.5  | 39.4  |   |   |   |   |  | 16.3  | 17.1  | 55.0  | 8.8   |   |      |
| Progression Factor                | 1.00  | 1.00  |   |   |   |   |  | 0.34  | 2.76  | 0.48  | 0.25  |   |      |
| Incremental Delay, d2             | 4.1   | 2.4   |   |   |   |   |  | 0.3   | 1.7   | 3.5   | 0.0   |   |      |
| Delay (s)                         | 45.6  | 41.8  |   |   |   |   |  | 5.8   | 49.0  | 30.1  | 2.2   |   |      |
| Level of Service                  | D   | D   |   |   |   |   |  | A   | D   | C   | A   |   |      |
| Approach Delay (s)                |   | 44.3  |   |   | 0.0   |   |  | 19.2  |   |   | 3.8   |   |      |
| Approach LOS                      |   | D   |   |   | A   |   |  | B   |   |   | A   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 21.9  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | C    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.55  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 120.0   |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 18.5 |
| Intersection Capacity Utilization |   |   | 97.1%   |   |   |   |  |   |   |   |   | ICU Level of Service  | F    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |
| c                                 | Critical Lane Group   |   |   |   |   |   |  |   |   |   |   |   |      |

HCM Signalized Intersection Capacity Analysis




















3: Mathilda Ave & Ross Dr

12/19/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)              | 26  | 3   | 39  | 185   | 31  | 185   | 115  | 2152  | 79  | 27  | 689   | 96  |
| Future Volume (vph)               | 26  | 3   | 39  | 185   | 31  | 185   | 115  | 2152  | 79  | 27  | 689   | 96  |
| 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  | 5.3   |   | 4.0   | 5.3   |   |
| Lane Util. Factor                 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 0.81  |   | 1.00  | 0.91  |   |
| Frbp, ped/bikes                   | 1.00  | 1.00  | 0.98  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes                   | 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  | 1.00  | 0.85  | 1.00   | 0.99  |   | 1.00  | 0.98  |   |
| Flt Protected                     | 0.95  | 1.00  | 1.00  | 0.95  | 1.00  | 1.00  | 0.95   | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 | 1770  | 1863  | 1557  | 1761  | 1863  | 1583  | 1770   | 7496  |   | 1770  | 4992  |   |
| Flt Permitted                     | 0.74  | 1.00  | 1.00  | 0.76  | 1.00  | 1.00  | 0.95   | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (perm)                 | 1373  | 1863  | 1557  | 1401  | 1863  | 1583  | 1770   | 7496  |   | 1770  | 4992  |   |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Adj. Flow (vph)                   | 26  | 3   | 39  | 185   | 31  | 185   | 115  | 2152  | 79  | 27  | 689   | 96  |
| RTOR Reduction (vph)              | 0   | 0   | 32  | 0   | 0   | 152   | 0  | 3   | 0   | 0   | 11  | 0   |
| Lane Group Flow (vph)             | 26  | 3   | 7   | 185   | 31  | 33  | 115  | 2228  | 0   | 27  | 774   | 0   |
| Confl. Peds. (#/hr)               |   |   | 5   | 5   |   |   |  |   | 5   |   |   |   |
| Turn Type                         | Perm  | NA  | Perm  | Perm  | NA  | Perm  | Prot   | NA  |   | Prot  | NA  |   |
| Protected Phases                  |   | 4   |   |   | 8   |   | 5  | 2   |   | 1   |   | 6   |
| Permitted Phases                  | 4   |   | 4   | 8   |   | 8   |  |   |   |   |   |   |
| Actuated Green, G (s)             | 21.7  | 21.7  | 21.7  | 21.7  | 21.7  | 21.7  | 12.7   | 80.0  |   | 5.0   | 72.3  |   |
| Effective Green, g (s)            | 21.7  | 21.7  | 21.7  | 21.7  | 21.7  | 21.7  | 12.7   | 80.0  |   | 5.0   | 72.3  |   |
| Actuated g/C Ratio                | 0.18  | 0.18  | 0.18  | 0.18  | 0.18  | 0.18  | 0.11   | 0.67  |   | 0.04  | 0.60  |   |
| Clearance Time (s)                | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0  | 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 Grp Cap (vph)                | 248   | 336   | 281   | 253   | 336   | 286   | 187  | 4997  |   | 73  | 3007  |   |
| v/s Ratio Prot                    |   | 0.00  |   |   | 0.02  |   | c0.06  | c0.30   |   | c0.02   | 0.16  |   |
| v/s Ratio Perm                    | 0.02  |   | 0.00  | c0.13   |   | 0.02  |  |   |   |   |   |   |
| v/c Ratio                         | 0.10  | 0.01  | 0.03  | 0.73  | 0.09  | 0.12  | 0.61   | 0.45  |   | 0.37  | 0.26  |   |
| Uniform Delay, d1                 | 41.0  | 40.3  | 40.4  | 46.4  | 40.9  | 41.1  | 51.3   | 9.5   |   | 56.0  | 11.2  |   |
| Progression Factor                | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.24   | 0.42  |   | 0.47  | 0.33  |   |
| Incremental Delay, d2             | 0.2   | 0.0   | 0.0   | 10.4  | 0.1   | 0.2   | 4.8  | 0.3   |   | 3.1   | 0.0   |   |
| Delay (s)                         | 41.2  | 40.3  | 40.5  | 56.8  | 41.1  | 41.3  | 68.5   | 4.2   |   | 29.5  | 3.8   |   |
| Level of Service                  | D   | D   | D   | E   | D   | D   | E  | A   |   | C   | A   |   |
| Approach Delay (s)                |   | 40.8  |   |   | 48.4  |   |  | 7.4   |   |   | 4.6   |   |
| Approach LOS                      |   | D   |   |   | D   |   |  | A   |   |   | A   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 11.9  |   |   |   |  |   |   |   |   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.51  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 120.0   |   |   |   |  |   |   | 13.3  |   |   |
| Intersection Capacity Utilization |   |   | 57.4%   |   |   |   |  |   |   |   |   | B   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |
| c Critical Lane Group             |   |   |   |   |   |   |  |   |   |   |   |   |




























HCM Signalized Intersection Capacity Analysis  
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp

04/16/2018

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |   |   |  |  |  |   |  |   |   |  |  |
| Traffic Volume (vph)              | 0   | 0   | 0   | 545   | 36  | 273   | 134  | 2342  | 0   | 0   | 254   | 99  |
| Future Volume (vph)               | 0   | 0   | 0   | 545   | 36  | 273   | 134  | 2342  | 0   | 0   | 254   | 99  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   |   |   | 4.9   | 4.9   | 4.9   | 5.3  | 5.3   |   |   | 5.3   |   |
| Lane Util. Factor                 |   |   |   | 0.95  | 0.95  | 1.00  | 1.00   | 0.86  |   |   | 0.86  |   |
| Frbp, ped/bikes                   |   |   |   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |   |   | 1.00  |   |
| Flpb, ped/bikes                   |   |   |   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |   |   | 1.00  |   |
| Frt                               |   |   |   | 1.00  | 1.00  | 0.85  | 1.00   | 1.00  |   |   | 0.96  |   |
| Flt Protected                     |   |   |   | 0.95  | 0.96  | 1.00  | 0.95   | 1.00  |   |   | 1.00  |   |
| Satd. Flow (prot)                 |   |   |   | 1681  | 1695  | 1583  | 1770   | 6408  |   |   | 6138  |   |
| Flt Permitted                     |   |   |   | 0.95  | 0.96  | 1.00  | 0.95   | 1.00  |   |   | 1.00  |   |
| Satd. Flow (perm)                 |   |   |   | 1681  | 1695  | 1583  | 1770   | 6408  |   |   | 6138  |   |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Adj. Flow (vph)                   | 0   | 0   | 0   | 545   | 36  | 273   | 134  | 2342  | 0   | 0   | 254   | 99  |
| RTOR Reduction (vph)              | 0   | 0   | 0   | 0   | 0   | 55  | 0  | 0   | 0   | 0   | 90  | 0   |
| Lane Group Flow (vph)             | 0   | 0   | 0   | 289   | 292   | 218   | 134  | 2342  | 0   | 0   | 263   | 0   |
| Confl. Peds. (#/hr)               |   |   |   |   |   |   |  |   | 12  |   |   |   |
| Turn Type                         |   |   |   | Split   | NA  | Perm  | Prot   | NA  |   |   | NA  |   |
| Protected Phases                  |   |   |   | 8   | 8   |   | 5  | 2   |   |   | 6   |   |
| Permitted Phases                  |   |   |   |   |   | 8   |  |   |   |   |   |   |
| Actuated Green, G (s)             |   |   |   | 25.1  | 25.1  | 25.1  | 68.9   | 84.7  |   |   | 10.5  |   |
| Effective Green, g (s)            |   |   |   | 25.1  | 25.1  | 25.1  | 68.9   | 84.7  |   |   | 10.5  |   |
| Actuated g/C Ratio                |   |   |   | 0.21  | 0.21  | 0.21  | 0.57   | 0.71  |   |   | 0.09  |   |
| Clearance Time (s)                |   |   |   | 4.9   | 4.9   | 4.9   | 5.3  | 5.3   |   |   | 5.3   |   |
| Vehicle Extension (s)             |   |   |   | 3.0   | 3.0   | 3.0   | 3.0  | 3.0   |   |   | 3.0   |   |
| Lane Grp Cap (vph)                |   |   |   | 351   | 354   | 331   | 1016   | 4522  |   |   | 537   |   |
| v/s Ratio Prot                    |   |   |   | 0.17  | c0.17   |   | 0.08   | c0.37   |   |   | 0.04  |   |
| v/s Ratio Perm                    |   |   |   |   |   | 0.14  |  |   |   |   |   |   |
| v/c Ratio                         |   |   |   | 0.82  | 0.82  | 0.66  | 0.13   | 0.52  |   |   | 0.49  |   |
| Uniform Delay, d1                 |   |   |   | 45.3  | 45.3  | 43.5  | 11.8   | 8.2   |   |   | 52.2  |   |
| Progression Factor                |   |   |   | 1.00  | 1.00  | 1.00  | 1.17   | 0.71  |   |   | 1.12  |   |
| Incremental Delay, d2             |   |   |   | 19.2  | 19.2  | 9.9   | 0.1  | 0.4   |   |   | 0.7   |   |
| Delay (s)                         |   |   |   | 64.6  | 64.6  | 53.4  | 13.8   | 6.2   |   |   | 58.9  |   |
| Level of Service                  |   |   |   | E   | E   | D   | B  | A   |   |   | E   |   |
| Approach Delay (s)                |   | 0.0   |   |   | 61.0  |   |  | 6.6   |   |   | 58.9  |   |
| Approach LOS                      |   | A   |   |   | E   |   |  | A   |   |   | E   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 24.3  |   | HCM 2000 Level of Service   |   |  |   |   |   | C   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.62  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 120.0   |   | Sum of lost time (s)  |   |  |   |   | 15.5  |   |   |
| Intersection Capacity Utilization |   |   | 97.9%   |   | ICU Level of Service  |   |  |   |   | F   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |
| c Critical Lane Group             |   |   |   |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

04/16/2018

|                                   |    |    |  |  |  |  |  |    |  |    |    |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |   |   |   |   |   |  |     |  |   |     |   |      |
| Traffic Volume (vph)              | 845   | 0   | 72  | 0   | 0   | 0   | 0  | 1631  | 744   | 45  | 754   | 0   |      |
| Future Volume (vph)               | 845   | 0   | 72  | 0   | 0   | 0   | 0  | 1631  | 744   | 45  | 754   | 0   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Lane Util. Factor                 | 0.91  | 0.91  |   |   |   |   |  | 0.81  | 1.00  | 1.00  | 0.91  |   |      |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 0.99  | 1.00  | 1.00  |   |      |
| Flpb, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 1.00  | 1.00  |   |      |
| Frt                               | 1.00  | 0.96  |   |   |   |   |  | 1.00  | 0.85  | 1.00  | 1.00  |   |      |
| Flt Protected                     | 0.95  | 0.96  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 3221  | 1574  |   |   |   |   |  | 7544  | 1561  | 1770  | 5085  |   |      |
| Flt Permitted                     | 0.95  | 0.96  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 3221  | 1574  |   |   |   |   |  | 7544  | 1561  | 1770  | 5085  |   |      |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |      |
| Adj. Flow (vph)                   | 845   | 0   | 72  | 0   | 0   | 0   | 0  | 1631  | 744   | 45  | 754   | 0   |      |
| RTOR Reduction (vph)              | 0   | 65  | 0   | 0   | 0   | 0   | 0  | 0   | 343   | 0   | 0   | 0   |      |
| Lane Group Flow (vph)             | 617   | 235   | 0   | 0   | 0   | 0   | 0  | 1631  | 401   | 45  | 754   | 0   |      |
| Confl. Bikes (#/hr)               |   |   |   |   |   |   |  |   | 5   |   |   |   |      |
| Turn Type                         | Split   | NA  |   |   |   |   |  | NA  | Perm  | Prot  | NA  |   |      |
| Protected Phases                  | 4   | 4   |   |   |   |   |  | 2   |   | 1   | 6   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   | 2   |   |   |   |      |
| Actuated Green, G (s)             | 30.3  | 30.3  |   |   |   |   |  | 64.6  | 64.6  | 6.6   | 77.5  |   |      |
| Effective Green, g (s)            | 30.3  | 30.3  |   |   |   |   |  | 64.6  | 64.6  | 6.6   | 77.5  |   |      |
| Actuated g/C Ratio                | 0.25  | 0.25  |   |   |   |   |  | 0.54  | 0.54  | 0.05  | 0.65  |   |      |
| Clearance Time (s)                | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Vehicle Extension (s)             | 3.0   | 3.0   |   |   |   |   |  | 3.0   | 3.0   | 3.0   | 3.0   |   |      |
| Lane Grp Cap (vph)                | 813   | 397   |   |   |   |   |  | 4061  | 840   | 97  | 3284  |   |      |
| v/s Ratio Prot                    | c0.19   | 0.15  |   |   |   |   |  | 0.22  |   | c0.03   | 0.15  |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   | c0.26   |   |   |   |      |
| v/c Ratio                         | 0.76  | 0.59  |   |   |   |   |  | 0.40  | 0.48  | 0.46  | 0.23  |   |      |
| Uniform Delay, d1                 | 41.5  | 39.4  |   |   |   |   |  | 16.3  | 17.2  | 55.0  | 8.8   |   |      |
| Progression Factor                | 1.00  | 1.00  |   |   |   |   |  | 0.32  | 2.87  | 0.48  | 0.24  |   |      |
| Incremental Delay, d2             | 4.1   | 2.4   |   |   |   |   |  | 0.3   | 1.8   | 3.5   | 0.0   |   |      |
| Delay (s)                         | 45.6  | 41.8  |   |   |   |   |  | 5.6   | 51.1  | 30.1  | 2.1   |   |      |
| Level of Service                  | D   | D   |   |   |   |   |  | A   | D   | C   | A   |   |      |
| Approach Delay (s)                |   | 44.3  |   |   | 0.0   |   |  | 19.8  |   |   | 3.7   |   |      |
| Approach LOS                      |   | D   |   |   | A   |   |  | B   |   |   | A   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 22.2  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | C    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.56  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 120.0   |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 18.5 |
| Intersection Capacity Utilization |   |   | 97.9%   |   |   |   |  |   |   |   |   | ICU Level of Service  | F    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |
| c                                 | Critical Lane Group   |   |   |   |   |   |  |   |   |   |   |   |      |



HCM Signalized Intersection Capacity Analysis

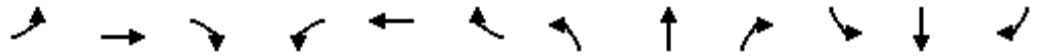
3: Mathilda Ave & Ross Dr

04/16/2018

| Movement                          | EBL  | EBT  | EBR   | WBL   | WBT  | WBR  | NBL                       | NBT   | NBR  | SBL   | SBT  | SBR  |
|-----------------------------------|------|------|-------|-------|------|------|---------------------------|-------|------|-------|------|------|
| Lane Configurations               |      |      |       |       |      |      |                           |       |      |       |      |      |
| Traffic Volume (vph)              | 26   | 3    | 39    | 193   | 31   | 185  | 115                       | 2164  | 83   | 27    | 703  | 96   |
| Future Volume (vph)               | 26   | 3    | 39    | 193   | 31   | 185  | 115                       | 2164  | 83   | 27    | 703  | 96   |
| 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                       | 5.3   |      | 4.0   | 5.3  |      |
| Lane Util. Factor                 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00                      | 0.81  |      | 1.00  | 0.91 |      |
| Frbp, ped/bikes                   | 1.00 | 1.00 | 0.98  | 1.00  | 1.00 | 1.00 | 1.00                      | 1.00  |      | 1.00  | 1.00 |      |
| Flpb, ped/bikes                   | 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  | 1.00 | 0.85 | 1.00                      | 0.99  |      | 1.00  | 0.98 |      |
| Flt Protected                     | 0.95 | 1.00 | 1.00  | 0.95  | 1.00 | 1.00 | 0.95                      | 1.00  |      | 0.95  | 1.00 |      |
| Satd. Flow (prot)                 | 1770 | 1863 | 1557  | 1761  | 1863 | 1583 | 1770                      | 7494  |      | 1770  | 4994 |      |
| Flt Permitted                     | 0.74 | 1.00 | 1.00  | 0.76  | 1.00 | 1.00 | 0.95                      | 1.00  |      | 0.95  | 1.00 |      |
| Satd. Flow (perm)                 | 1373 | 1863 | 1557  | 1401  | 1863 | 1583 | 1770                      | 7494  |      | 1770  | 4994 |      |
| Peak-hour factor, PHF             | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00                      | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 |
| Adj. Flow (vph)                   | 26   | 3    | 39    | 193   | 31   | 185  | 115                       | 2164  | 83   | 27    | 703  | 96   |
| RTOR Reduction (vph)              | 0    | 0    | 32    | 0     | 0    | 150  | 0                         | 3     | 0    | 0     | 11   | 0    |
| Lane Group Flow (vph)             | 26   | 3    | 7     | 193   | 31   | 35   | 115                       | 2244  | 0    | 27    | 788  | 0    |
| Confl. Peds. (#/hr)               |      |      | 5     | 5     |      |      |                           |       | 5    |       |      |      |
| Turn Type                         | Perm | NA   | Perm  | Perm  | NA   | Perm | Prot                      | NA    |      | Prot  | NA   |      |
| Protected Phases                  |      | 4    |       |       | 8    |      | 5                         | 2     |      | 1     |      | 6    |
| Permitted Phases                  | 4    |      | 4     | 8     |      | 8    |                           |       |      |       |      |      |
| Actuated Green, G (s)             | 22.4 | 22.4 | 22.4  | 22.4  | 22.4 | 22.4 | 12.7                      | 79.3  |      | 5.0   | 71.6 |      |
| Effective Green, g (s)            | 22.4 | 22.4 | 22.4  | 22.4  | 22.4 | 22.4 | 12.7                      | 79.3  |      | 5.0   | 71.6 |      |
| Actuated g/C Ratio                | 0.19 | 0.19 | 0.19  | 0.19  | 0.19 | 0.19 | 0.11                      | 0.66  |      | 0.04  | 0.60 |      |
| Clearance Time (s)                | 4.0  | 4.0  | 4.0   | 4.0   | 4.0  | 4.0  | 4.0                       | 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 Grp Cap (vph)                | 256  | 347  | 290   | 261   | 347  | 295  | 187                       | 4952  |      | 73    | 2979 |      |
| v/s Ratio Prot                    |      | 0.00 |       |       | 0.02 |      | c0.06                     | c0.30 |      | c0.02 | 0.16 |      |
| v/s Ratio Perm                    | 0.02 |      | 0.00  | c0.14 |      | 0.02 |                           |       |      |       |      |      |
| v/c Ratio                         | 0.10 | 0.01 | 0.03  | 0.74  | 0.09 | 0.12 | 0.61                      | 0.45  |      | 0.37  | 0.26 |      |
| Uniform Delay, d1                 | 40.5 | 39.8 | 39.9  | 46.0  | 40.4 | 40.6 | 51.3                      | 9.9   |      | 56.0  | 11.6 |      |
| Progression Factor                | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.22                      | 0.43  |      | 0.47  | 0.33 |      |
| Incremental Delay, d2             | 0.2  | 0.0  | 0.0   | 10.5  | 0.1  | 0.2  | 4.8                       | 0.3   |      | 3.1   | 0.0  |      |
| Delay (s)                         | 40.6 | 39.8 | 39.9  | 56.5  | 40.5 | 40.8 | 67.4                      | 4.5   |      | 29.3  | 3.8  |      |
| Level of Service                  | D    | D    | D     | E     | D    | D    | E                         | A     |      | C     | A    |      |
| Approach Delay (s)                |      | 40.2 |       |       | 48.2 |      |                           | 7.5   |      |       | 4.7  |      |
| Approach LOS                      |      | D    |       |       | D    |      |                           | A     |      |       | A    |      |
| <b>Intersection Summary</b>       |      |      |       |       |      |      |                           |       |      |       |      |      |
| HCM 2000 Control Delay            |      |      | 12.0  |       |      |      | HCM 2000 Level of Service |       |      |       | B    |      |
| HCM 2000 Volume to Capacity ratio |      |      | 0.52  |       |      |      |                           |       |      |       |      |      |
| Actuated Cycle Length (s)         |      |      | 120.0 |       |      |      | Sum of lost time (s)      |       |      | 13.3  |      |      |
| Intersection Capacity Utilization |      |      | 58.0% |       |      |      | ICU Level of Service      |       |      | B     |      |      |
| Analysis Period (min)             |      |      | 15    |       |      |      |                           |       |      |       |      |      |
| c Critical Lane Group             |      |      |       |       |      |      |                           |       |      |       |      |      |

HCM Signalized Intersection Capacity Analysis  
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp


























12/19/2017



| Movement                          | EBL  | EBT  | EBR    | WBL   | WBT                       | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |  |
|-----------------------------------|------|------|--------|-------|---------------------------|-------|------|-------|------|------|------|------|--|
| Lane Configurations               |      |      |        | ↙     | ↖                         | ↗     | ↘    | ↑↑↑   |      |      | ↑↑↑  | ↘    |  |
| Traffic Volume (vph)              | 0    | 0    | 0      | 765   | 36                        | 568   | 144  | 4192  | 0    | 0    | 483  | 201  |  |
| Future Volume (vph)               | 0    | 0    | 0      | 765   | 36                        | 568   | 144  | 4192  | 0    | 0    | 483  | 201  |  |
| Ideal Flow (vphpl)                | 1900 | 1900 | 1900   | 1900  | 1900                      | 1900  | 1900 | 1900  | 1900 | 1900 | 1900 | 1900 |  |
| Total Lost time (s)               |      |      |        | 4.9   | 4.9                       | 4.9   | 5.3  | 5.3   |      |      | 5.3  |      |  |
| Lane Util. Factor                 |      |      |        | 0.95  | 0.95                      | 1.00  | 1.00 | 0.86  |      |      | 0.86 |      |  |
| Frbp, ped/bikes                   |      |      |        | 1.00  | 1.00                      | 1.00  | 1.00 | 1.00  |      |      | 1.00 |      |  |
| Flpb, ped/bikes                   |      |      |        | 1.00  | 1.00                      | 1.00  | 1.00 | 1.00  |      |      | 1.00 |      |  |
| Frt                               |      |      |        | 1.00  | 1.00                      | 0.85  | 1.00 | 1.00  |      |      | 0.96 |      |  |
| Flt Protected                     |      |      |        | 0.95  | 0.96                      | 1.00  | 0.95 | 1.00  |      |      | 1.00 |      |  |
| Satd. Flow (prot)                 |      |      |        | 1681  | 1693                      | 1583  | 1770 | 6408  |      |      | 6125 |      |  |
| Flt Permitted                     |      |      |        | 0.95  | 0.96                      | 1.00  | 0.95 | 1.00  |      |      | 1.00 |      |  |
| Satd. Flow (perm)                 |      |      |        | 1681  | 1693                      | 1583  | 1770 | 6408  |      |      | 6125 |      |  |
| Peak-hour factor, PHF             | 1.00 | 1.00 | 1.00   | 1.00  | 1.00                      | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |  |
| Adj. Flow (vph)                   | 0    | 0    | 0      | 765   | 36                        | 568   | 144  | 4192  | 0    | 0    | 483  | 201  |  |
| RTOR Reduction (vph)              | 0    | 0    | 0      | 0     | 0                         | 55    | 0    | 0     | 0    | 0    | 106  | 0    |  |
| Lane Group Flow (vph)             | 0    | 0    | 0      | 398   | 403                       | 513   | 144  | 4192  | 0    | 0    | 578  | 0    |  |
| Confl. Peds. (#/hr)               |      |      |        |       |                           |       |      |       | 12   |      |      |      |  |
| Turn Type                         |      |      |        | Split | NA                        | Perm  | Prot | NA    |      |      | NA   |      |  |
| Protected Phases                  |      |      |        | 8     | 8                         |       | 5    | 2     |      |      | 6    |      |  |
| Permitted Phases                  |      |      |        |       |                           | 8     |      |       |      |      |      |      |  |
| Actuated Green, G (s)             |      |      |        | 25.1  | 25.1                      | 25.1  | 61.5 | 84.7  |      |      | 17.9 |      |  |
| Effective Green, g (s)            |      |      |        | 25.1  | 25.1                      | 25.1  | 61.5 | 84.7  |      |      | 17.9 |      |  |
| Actuated g/C Ratio                |      |      |        | 0.21  | 0.21                      | 0.21  | 0.51 | 0.71  |      |      | 0.15 |      |  |
| Clearance Time (s)                |      |      |        | 4.9   | 4.9                       | 4.9   | 5.3  | 5.3   |      |      | 5.3  |      |  |
| Vehicle Extension (s)             |      |      |        | 3.0   | 3.0                       | 3.0   | 3.0  | 3.0   |      |      | 3.0  |      |  |
| Lane Grp Cap (vph)                |      |      |        | 351   | 354                       | 331   | 907  | 4522  |      |      | 913  |      |  |
| v/s Ratio Prot                    |      |      |        | 0.24  | 0.24                      |       | 0.08 | c0.65 |      |      | 0.09 |      |  |
| v/s Ratio Perm                    |      |      |        |       |                           | c0.32 |      |       |      |      |      |      |  |
| v/c Ratio                         |      |      |        | 1.13  | 1.14                      | 1.55  | 0.16 | 0.93  |      |      | 0.63 |      |  |
| Uniform Delay, d1                 |      |      |        | 47.5  | 47.5                      | 47.5  | 15.5 | 15.0  |      |      | 48.0 |      |  |
| Progression Factor                |      |      |        | 1.00  | 1.00                      | 1.00  | 1.67 | 1.00  |      |      | 0.93 |      |  |
| Incremental Delay, d2             |      |      |        | 89.5  | 90.9                      | 262.5 | 0.1  | 1.9   |      |      | 1.4  |      |  |
| Delay (s)                         |      |      |        | 136.9 | 138.4                     | 309.9 | 25.9 | 16.9  |      |      | 46.1 |      |  |
| Level of Service                  |      |      |        | F     | F                         | F     | C    | B     |      |      | D    |      |  |
| Approach Delay (s)                |      | 0.0  |        |       | 209.1                     |       |      | 17.2  |      |      | 46.1 |      |  |
| Approach LOS                      |      | A    |        |       | F                         |       |      | B     |      |      | D    |      |  |
| <b>Intersection Summary</b>       |      |      |        |       |                           |       |      |       |      |      |      |      |  |
| HCM 2000 Control Delay            |      |      | 61.4   |       | HCM 2000 Level of Service |       |      |       | E    |      |      |      |  |
| HCM 2000 Volume to Capacity ratio |      |      | 1.12   |       |                           |       |      |       |      |      |      |      |  |
| Actuated Cycle Length (s)         |      |      | 120.0  |       | Sum of lost time (s)      |       |      |       | 15.5 |      |      |      |  |
| Intersection Capacity Utilization |      |      | 139.7% |       | ICU Level of Service      |       |      |       | H    |      |      |      |  |
| Analysis Period (min)             |      |      | 15     |       |                           |       |      |       |      |      |      |      |  |
| c Critical Lane Group             |      |      |        |       |                           |       |      |       |      |      |      |      |  |

HCM Signalized Intersection Capacity Analysis  
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

























12/19/2017

|                                   |    |  |  |  |  |  |  |    |  |  |    |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |  |   |   |   |   |  |     |  |  |     |   |      |
| Traffic Volume (vph)              | 1719  | 0   | 86  | 0   | 0   | 0   | 0  | 2617  | 778   | 104   | 1145  | 0   |      |
| Future Volume (vph)               | 1719  | 0   | 86  | 0   | 0   | 0   | 0  | 2617  | 778   | 104   | 1145  | 0   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Lane Util. Factor                 | 0.91  | 0.91  |   |   |   |   |  | 0.81  | 1.00  | 1.00  | 0.91  |   |      |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 0.99  | 1.00  | 1.00  |   |      |
| Flpb, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 1.00  | 1.00  |   |      |
| Frt                               | 1.00  | 0.98  |   |   |   |   |  | 1.00  | 0.85  | 1.00  | 1.00  |   |      |
| Flt Protected                     | 0.95  | 0.96  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 3221  | 1591  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Flt Permitted                     | 0.95  | 0.96  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 3221  | 1591  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |      |
| Adj. Flow (vph)                   | 1719  | 0   | 86  | 0   | 0   | 0   | 0  | 2617  | 778   | 104   | 1145  | 0   |      |
| RTOR Reduction (vph)              | 0   | 59  | 0   | 0   | 0   | 0   | 0  | 0   | 397   | 0   | 0   | 0   |      |
| Lane Group Flow (vph)             | 1203  | 543   | 0   | 0   | 0   | 0   | 0  | 2617  | 381   | 104   | 1145  | 0   |      |
| Confl. Bikes (#/hr)               |   |   |   |   |   |   |  |   | 5   |   |   |   |      |
| Turn Type                         | Split   | NA  |   |   |   |   |  | NA  | Perm  | Prot  | NA  |   |      |
| Protected Phases                  | 4   | 4   |   |   |   |   |  | 2   |   | 1   | 6   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   | 2   |   |   |   |      |
| Actuated Green, G (s)             | 39.1  | 39.1  |   |   |   |   |  | 53.7  | 53.7  | 8.7   | 68.7  |   |      |
| Effective Green, g (s)            | 39.1  | 39.1  |   |   |   |   |  | 53.7  | 53.7  | 8.7   | 68.7  |   |      |
| Actuated g/C Ratio                | 0.33  | 0.33  |   |   |   |   |  | 0.45  | 0.45  | 0.07  | 0.57  |   |      |
| Clearance Time (s)                | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Vehicle Extension (s)             | 3.0   | 3.0   |   |   |   |   |  | 3.0   | 3.0   | 3.0   | 3.0   |   |      |
| Lane Grp Cap (vph)                | 1049  | 518   |   |   |   |   |  | 3375  | 698   | 128   | 2911  |   |      |
| v/s Ratio Prot                    | c0.37   | 0.34  |   |   |   |   |  | c0.35   |   | c0.06   | 0.23  |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   | 0.24  |   |   |   |      |
| v/c Ratio                         | 1.15  | 1.05  |   |   |   |   |  | 0.78  | 0.55  | 0.81  | 0.39  |   |      |
| Uniform Delay, d1                 | 40.5  | 40.5  |   |   |   |   |  | 28.0  | 24.2  | 54.8  | 14.2  |   |      |
| Progression Factor                | 1.00  | 1.00  |   |   |   |   |  | 0.56  | 2.89  | 0.55  | 0.24  |   |      |
| Incremental Delay, d2             | 77.5  | 53.0  |   |   |   |   |  | 1.4   | 2.4   | 30.7  | 0.0   |   |      |
| Delay (s)                         | 117.9   | 93.4  |   |   |   |   |  | 17.1  | 72.4  | 60.7  | 3.4   |   |      |
| Level of Service                  | F   | F   |   |   |   |   |  | B   | E   | E   | A   |   |      |
| Approach Delay (s)                |   | 109.8   |   |   | 0.0   |   |  | 29.8  |   |   | 8.2   |   |      |
| Approach LOS                      |   | F   |   |   | A   |   |  | C   |   |   | A   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 48.0  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | D    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.92  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 120.0   |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 18.5 |
| Intersection Capacity Utilization |   |   | 139.7%  |   |   |   |  |   |   |   |   | ICU Level of Service  | H    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |
| c Critical Lane Group             |   |   |   |   |   |   |  |   |   |   |   |   |      |

## HCM Signalized Intersection Capacity Analysis

## 3: Mathilda Ave &amp; Ross Dr

12/19/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)              | 26  | 3   | 39  | 197   | 31  | 205   | 115  | 3164  | 90  | 28  | 1107  | 96  |
| Future Volume (vph)               | 26  | 3   | 39  | 197   | 31  | 205   | 115  | 3164  | 90  | 28  | 1107  | 96  |
| 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  | 5.3   |   | 4.0   | 5.3   |   |
| Lane Util. Factor                 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 0.81  |   | 1.00  | 0.91  |   |
| Frbp, ped/bikes                   | 1.00  | 1.00  | 0.98  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes                   | 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  | 1.00  | 0.85  | 1.00   | 1.00  |   | 1.00  | 0.99  |   |
| Flt Protected                     | 0.95  | 1.00  | 1.00  | 0.95  | 1.00  | 1.00  | 0.95   | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 | 1770  | 1863  | 1557  | 1761  | 1863  | 1583  | 1770   | 7506  |   | 1770  | 5024  |   |
| Flt Permitted                     | 0.74  | 1.00  | 1.00  | 0.76  | 1.00  | 1.00  | 0.95   | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (perm)                 | 1373  | 1863  | 1557  | 1401  | 1863  | 1583  | 1770   | 7506  |   | 1770  | 5024  |   |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Adj. Flow (vph)                   | 26  | 3   | 39  | 197   | 31  | 205   | 115  | 3164  | 90  | 28  | 1107  | 96  |
| RTOR Reduction (vph)              | 0   | 0   | 32  | 0   | 0   | 166   | 0  | 2   | 0   | 0   | 6   | 0   |
| Lane Group Flow (vph)             | 26  | 3   | 7   | 197   | 31  | 39  | 115  | 3252  | 0   | 28  | 1197  | 0   |
| Confl. Peds. (#/hr)               |   |   | 5   | 5   |   |   |  |   | 5   |   |   |   |
| Turn Type                         | Perm  | NA  | Perm  | Perm  | NA  | Perm  | Prot   | NA  |   | Prot  | NA  |   |
| Protected Phases                  |   | 4   |   |   | 8   |   | 5  | 2   |   | 1   | 6   |   |
| Permitted Phases                  | 4   |   | 4   | 8   |   | 8   |  |   |   |   |   |   |
| Actuated Green, G (s)             | 22.7  | 22.7  | 22.7  | 22.7  | 22.7  | 22.7  | 12.7   | 78.9  |   | 5.1   | 71.3  |   |
| Effective Green, g (s)            | 22.7  | 22.7  | 22.7  | 22.7  | 22.7  | 22.7  | 12.7   | 78.9  |   | 5.1   | 71.3  |   |
| Actuated g/C Ratio                | 0.19  | 0.19  | 0.19  | 0.19  | 0.19  | 0.19  | 0.11   | 0.66  |   | 0.04  | 0.59  |   |
| Clearance Time (s)                | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0  | 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 Grp Cap (vph)                | 259   | 352   | 294   | 265   | 352   | 299   | 187  | 4935  |   | 75  | 2985  |   |
| v/s Ratio Prot                    |   | 0.00  |   |   | 0.02  |   | 0.06   | c0.43   |   | 0.02  | c0.24   |   |
| v/s Ratio Perm                    | 0.02  |   | 0.00  | c0.14   |   | 0.02  |  |   |   |   |   |   |
| v/c Ratio                         | 0.10  | 0.01  | 0.03  | 0.74  | 0.09  | 0.13  | 0.61   | 0.66  |   | 0.37  | 0.40  |   |
| Uniform Delay, d1                 | 40.2  | 39.5  | 39.6  | 45.9  | 40.1  | 40.4  | 51.3   | 12.4  |   | 55.9  | 13.0  |   |
| Progression Factor                | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.17   | 0.47  |   | 0.47  | 0.43  |   |
| Incremental Delay, d2             | 0.2   | 0.0   | 0.0   | 10.7  | 0.1   | 0.2   | 5.6  | 0.7   |   | 2.8   | 0.1   |   |
| Delay (s)                         | 40.4  | 39.5  | 39.7  | 56.6  | 40.2  | 40.6  | 65.4   | 6.5   |   | 29.0  | 5.6   |   |
| Level of Service                  | D   | D   | D   | E   | D   | D   | E  | A   |   | C   | A   |   |
| Approach Delay (s)                |   | 39.9  |   |   | 47.9  |   |  | 8.6   |   |   | 6.2   |   |
| Approach LOS                      |   | D   |   |   | D   |   |  | A   |   |   | A   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 11.7  |   |   |   | HCM 2000 Level of Service  |   |   |   | B   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.67  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 120.0   |   |   |   | Sum of lost time (s)   |   |   |   | 13.3  |   |
| Intersection Capacity Utilization |   |   | 69.9%   |   |   |   | ICU Level of Service   |   |   |   | C   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |
| c Critical Lane Group             |   |   |   |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp


























04/16/2018



| Movement                          | EBL  | EBT  | EBR    | WBL   | WBT                       | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |  |
|-----------------------------------|------|------|--------|-------|---------------------------|-------|------|-------|------|------|------|------|--|
| Lane Configurations               |      |      |        | ↙     | ↖                         | ↗     | ↘    | ↑↑↑   |      |      | ↑↑↑  | ↘    |  |
| Traffic Volume (vph)              | 0    | 0    | 0      | 779   | 36                        | 568   | 144  | 4192  | 0    | 0    | 483  | 201  |  |
| Future Volume (vph)               | 0    | 0    | 0      | 779   | 36                        | 568   | 144  | 4192  | 0    | 0    | 483  | 201  |  |
| Ideal Flow (vphpl)                | 1900 | 1900 | 1900   | 1900  | 1900                      | 1900  | 1900 | 1900  | 1900 | 1900 | 1900 | 1900 |  |
| Total Lost time (s)               |      |      |        | 4.9   | 4.9                       | 4.9   | 5.3  | 5.3   |      |      | 5.3  |      |  |
| Lane Util. Factor                 |      |      |        | 0.95  | 0.95                      | 1.00  | 1.00 | 0.86  |      |      | 0.86 |      |  |
| Frbp, ped/bikes                   |      |      |        | 1.00  | 1.00                      | 1.00  | 1.00 | 1.00  |      |      | 1.00 |      |  |
| Flpb, ped/bikes                   |      |      |        | 1.00  | 1.00                      | 1.00  | 1.00 | 1.00  |      |      | 1.00 |      |  |
| Frt                               |      |      |        | 1.00  | 1.00                      | 0.85  | 1.00 | 1.00  |      |      | 0.96 |      |  |
| Flt Protected                     |      |      |        | 0.95  | 0.96                      | 1.00  | 0.95 | 1.00  |      |      | 1.00 |      |  |
| Satd. Flow (prot)                 |      |      |        | 1681  | 1692                      | 1583  | 1770 | 6408  |      |      | 6125 |      |  |
| Flt Permitted                     |      |      |        | 0.95  | 0.96                      | 1.00  | 0.95 | 1.00  |      |      | 1.00 |      |  |
| Satd. Flow (perm)                 |      |      |        | 1681  | 1692                      | 1583  | 1770 | 6408  |      |      | 6125 |      |  |
| Peak-hour factor, PHF             | 1.00 | 1.00 | 1.00   | 1.00  | 1.00                      | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |  |
| Adj. Flow (vph)                   | 0    | 0    | 0      | 779   | 36                        | 568   | 144  | 4192  | 0    | 0    | 483  | 201  |  |
| RTOR Reduction (vph)              | 0    | 0    | 0      | 0     | 0                         | 55    | 0    | 0     | 0    | 0    | 106  | 0    |  |
| Lane Group Flow (vph)             | 0    | 0    | 0      | 405   | 410                       | 513   | 144  | 4192  | 0    | 0    | 578  | 0    |  |
| Confl. Peds. (#/hr)               |      |      |        |       |                           |       |      |       | 12   |      |      |      |  |
| Turn Type                         |      |      |        | Split | NA                        | Perm  | Prot | NA    |      |      | NA   |      |  |
| Protected Phases                  |      |      |        | 8     | 8                         |       | 5    | 2     |      |      | 6    |      |  |
| Permitted Phases                  |      |      |        |       |                           | 8     |      |       |      |      |      |      |  |
| Actuated Green, G (s)             |      |      |        | 25.1  | 25.1                      | 25.1  | 61.5 | 84.7  |      |      | 17.9 |      |  |
| Effective Green, g (s)            |      |      |        | 25.1  | 25.1                      | 25.1  | 61.5 | 84.7  |      |      | 17.9 |      |  |
| Actuated g/C Ratio                |      |      |        | 0.21  | 0.21                      | 0.21  | 0.51 | 0.71  |      |      | 0.15 |      |  |
| Clearance Time (s)                |      |      |        | 4.9   | 4.9                       | 4.9   | 5.3  | 5.3   |      |      | 5.3  |      |  |
| Vehicle Extension (s)             |      |      |        | 3.0   | 3.0                       | 3.0   | 3.0  | 3.0   |      |      | 3.0  |      |  |
| Lane Grp Cap (vph)                |      |      |        | 351   | 353                       | 331   | 907  | 4522  |      |      | 913  |      |  |
| v/s Ratio Prot                    |      |      |        | 0.24  | 0.24                      |       | 0.08 | c0.65 |      |      | 0.09 |      |  |
| v/s Ratio Perm                    |      |      |        |       |                           | c0.32 |      |       |      |      |      |      |  |
| v/c Ratio                         |      |      |        | 1.15  | 1.16                      | 1.55  | 0.16 | 0.93  |      |      | 0.63 |      |  |
| Uniform Delay, d1                 |      |      |        | 47.5  | 47.5                      | 47.5  | 15.5 | 15.0  |      |      | 48.0 |      |  |
| Progression Factor                |      |      |        | 1.00  | 1.00                      | 1.00  | 1.67 | 1.00  |      |      | 0.93 |      |  |
| Incremental Delay, d2             |      |      |        | 96.8  | 99.5                      | 262.5 | 0.1  | 1.9   |      |      | 1.4  |      |  |
| Delay (s)                         |      |      |        | 144.2 | 146.9                     | 309.9 | 25.9 | 16.9  |      |      | 46.1 |      |  |
| Level of Service                  |      |      |        | F     | F                         | F     | C    | B     |      |      | D    |      |  |
| Approach Delay (s)                |      | 0.0  |        |       | 213.1                     |       |      | 17.2  |      |      | 46.1 |      |  |
| Approach LOS                      |      | A    |        |       | F                         |       |      | B     |      |      | D    |      |  |
| <b>Intersection Summary</b>       |      |      |        |       |                           |       |      |       |      |      |      |      |  |
| HCM 2000 Control Delay            |      |      | 62.6   |       | HCM 2000 Level of Service |       |      |       |      |      | E    |      |  |
| HCM 2000 Volume to Capacity ratio |      |      | 1.12   |       |                           |       |      |       |      |      |      |      |  |
| Actuated Cycle Length (s)         |      |      | 120.0  |       | Sum of lost time (s)      |       |      |       |      |      | 15.5 |      |  |
| Intersection Capacity Utilization |      |      | 140.4% |       | ICU Level of Service      |       |      |       |      |      | H    |      |  |
| Analysis Period (min)             |      |      | 15     |       |                           |       |      |       |      |      |      |      |  |
| c Critical Lane Group             |      |      |        |       |                           |       |      |       |      |      |      |      |  |

HCM Signalized Intersection Capacity Analysis  
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

04/16/2018

|                                   |    |  |  |  |  |  |  |    |  |  |    |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |  |   |   |   |   |  |     |  |  |     |   |      |
| Traffic Volume (vph)              | 1719  | 0   | 86  | 0   | 0   | 0   | 0  | 2617  | 790   | 104   | 1159  | 0   |      |
| Future Volume (vph)               | 1719  | 0   | 86  | 0   | 0   | 0   | 0  | 2617  | 790   | 104   | 1159  | 0   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Lane Util. Factor                 | 0.91  | 0.91  |   |   |   |   |  | 0.81  | 1.00  | 1.00  | 0.91  |   |      |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 0.99  | 1.00  | 1.00  |   |      |
| Flpb, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 1.00  | 1.00  |   |      |
| Frt                               | 1.00  | 0.98  |   |   |   |   |  | 1.00  | 0.85  | 1.00  | 1.00  |   |      |
| Flt Protected                     | 0.95  | 0.96  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 3221  | 1591  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Flt Permitted                     | 0.95  | 0.96  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 3221  | 1591  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |      |
| Adj. Flow (vph)                   | 1719  | 0   | 86  | 0   | 0   | 0   | 0  | 2617  | 790   | 104   | 1159  | 0   |      |
| RTOR Reduction (vph)              | 0   | 59  | 0   | 0   | 0   | 0   | 0  | 0   | 403   | 0   | 0   | 0   |      |
| Lane Group Flow (vph)             | 1203  | 543   | 0   | 0   | 0   | 0   | 0  | 2617  | 387   | 104   | 1159  | 0   |      |
| Confl. Bikes (#/hr)               |   |   |   |   |   |   |  |   | 5   |   |   |   |      |
| Turn Type                         | Split   | NA  |   |   |   |   |  | NA  | Perm  | Prot  | NA  |   |      |
| Protected Phases                  | 4   | 4   |   |   |   |   |  | 2   |   | 1   | 6   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   | 2   |   |   |   |      |
| Actuated Green, G (s)             | 39.1  | 39.1  |   |   |   |   |  | 53.7  | 53.7  | 8.7   | 68.7  |   |      |
| Effective Green, g (s)            | 39.1  | 39.1  |   |   |   |   |  | 53.7  | 53.7  | 8.7   | 68.7  |   |      |
| Actuated g/C Ratio                | 0.33  | 0.33  |   |   |   |   |  | 0.45  | 0.45  | 0.07  | 0.57  |   |      |
| Clearance Time (s)                | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Vehicle Extension (s)             | 3.0   | 3.0   |   |   |   |   |  | 3.0   | 3.0   | 3.0   | 3.0   |   |      |
| Lane Grp Cap (vph)                | 1049  | 518   |   |   |   |   |  | 3375  | 698   | 128   | 2911  |   |      |
| v/s Ratio Prot                    | c0.37   | 0.34  |   |   |   |   |  | c0.35   |   | c0.06   | 0.23  |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   | 0.25  |   |   |   |      |
| v/c Ratio                         | 1.15  | 1.05  |   |   |   |   |  | 0.78  | 0.55  | 0.81  | 0.40  |   |      |
| Uniform Delay, d1                 | 40.5  | 40.5  |   |   |   |   |  | 28.0  | 24.4  | 54.8  | 14.2  |   |      |
| Progression Factor                | 1.00  | 1.00  |   |   |   |   |  | 0.55  | 3.07  | 0.55  | 0.23  |   |      |
| Incremental Delay, d2             | 77.5  | 53.0  |   |   |   |   |  | 1.4   | 2.4   | 30.7  | 0.0   |   |      |
| Delay (s)                         | 117.9   | 93.4  |   |   |   |   |  | 16.7  | 77.1  | 60.7  | 3.3   |   |      |
| Level of Service                  | F   | F   |   |   |   |   |  | B   | E   | E   | A   |   |      |
| Approach Delay (s)                |   | 109.8   |   |   | 0.0   |   |  | 30.7  |   |   | 8.1   |   |      |
| Approach LOS                      |   | F   |   |   | A   |   |  | C   |   |   | A   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 48.3  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | D    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.92  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 120.0   |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 18.5 |
| Intersection Capacity Utilization |   |   | 140.4%  |   |   |   |  |   |   |   |   | ICU Level of Service  | H    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |
| c Critical Lane Group             |   |   |   |   |   |   |  |   |   |   |   |   |      |

HCM Signalized Intersection Capacity Analysis  
 3: Mathilda Ave & Ross Dr

04/16/2018

| Movement                          | EBL  | EBT  | EBR   | WBL   | WBT  | WBR  | NBL                       | NBT   | NBR  | SBL  | SBT   | SBR  |
|-----------------------------------|------|------|-------|-------|------|------|---------------------------|-------|------|------|-------|------|
| Lane Configurations               |      |      |       |       |      |      |                           |       |      |      |       |      |
| Traffic Volume (vph)              | 26   | 3    | 39    | 205   | 31   | 205  | 115                       | 3176  | 94   | 28   | 1121  | 96   |
| Future Volume (vph)               | 26   | 3    | 39    | 205   | 31   | 205  | 115                       | 3176  | 94   | 28   | 1121  | 96   |
| 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                       | 5.3   |      | 4.0  | 5.3   |      |
| Lane Util. Factor                 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00                      | 0.81  |      | 1.00 | 0.91  |      |
| Frpb, ped/bikes                   | 1.00 | 1.00 | 0.98  | 1.00  | 1.00 | 1.00 | 1.00                      | 1.00  |      | 1.00 | 1.00  |      |
| Flpb, ped/bikes                   | 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  | 1.00 | 0.85 | 1.00                      | 1.00  |      | 1.00 | 0.99  |      |
| Flt Protected                     | 0.95 | 1.00 | 1.00  | 0.95  | 1.00 | 1.00 | 0.95                      | 1.00  |      | 0.95 | 1.00  |      |
| Satd. Flow (prot)                 | 1770 | 1863 | 1557  | 1761  | 1863 | 1583 | 1770                      | 7505  |      | 1770 | 5025  |      |
| Flt Permitted                     | 0.74 | 1.00 | 1.00  | 0.76  | 1.00 | 1.00 | 0.95                      | 1.00  |      | 0.95 | 1.00  |      |
| Satd. Flow (perm)                 | 1373 | 1863 | 1557  | 1401  | 1863 | 1583 | 1770                      | 7505  |      | 1770 | 5025  |      |
| Peak-hour factor, PHF             | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00                      | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 |
| Adj. Flow (vph)                   | 26   | 3    | 39    | 205   | 31   | 205  | 115                       | 3176  | 94   | 28   | 1121  | 96   |
| RTOR Reduction (vph)              | 0    | 0    | 31    | 0     | 0    | 165  | 0                         | 2     | 0    | 0    | 6     | 0    |
| Lane Group Flow (vph)             | 26   | 3    | 8     | 205   | 31   | 40   | 115                       | 3268  | 0    | 28   | 1211  | 0    |
| Confl. Peds. (#/hr)               |      |      | 5     | 5     |      |      |                           |       | 5    |      |       |      |
| Turn Type                         | Perm | NA   | Perm  | Perm  | NA   | Perm | Prot                      | NA    |      | Prot | NA    |      |
| Protected Phases                  |      | 4    |       |       | 8    |      | 5                         | 2     |      | 1    | 6     |      |
| Permitted Phases                  | 4    |      | 4     | 8     |      | 8    |                           |       |      |      |       |      |
| Actuated Green, G (s)             | 23.5 | 23.5 | 23.5  | 23.5  | 23.5 | 23.5 | 12.7                      | 78.1  |      | 5.1  | 70.5  |      |
| Effective Green, g (s)            | 23.5 | 23.5 | 23.5  | 23.5  | 23.5 | 23.5 | 12.7                      | 78.1  |      | 5.1  | 70.5  |      |
| Actuated g/C Ratio                | 0.20 | 0.20 | 0.20  | 0.20  | 0.20 | 0.20 | 0.11                      | 0.65  |      | 0.04 | 0.59  |      |
| Clearance Time (s)                | 4.0  | 4.0  | 4.0   | 4.0   | 4.0  | 4.0  | 4.0                       | 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 Grp Cap (vph)                | 268  | 364  | 304   | 274   | 364  | 310  | 187                       | 4884  |      | 75   | 2952  |      |
| v/s Ratio Prot                    |      | 0.00 |       |       | 0.02 |      | 0.06                      | c0.44 |      | 0.02 | c0.24 |      |
| v/s Ratio Perm                    | 0.02 |      | 0.00  | c0.15 |      | 0.03 |                           |       |      |      |       |      |
| v/c Ratio                         | 0.10 | 0.01 | 0.03  | 0.75  | 0.09 | 0.13 | 0.61                      | 0.67  |      | 0.37 | 0.41  |      |
| Uniform Delay, d1                 | 39.6 | 38.9 | 39.0  | 45.5  | 39.5 | 39.8 | 51.3                      | 13.0  |      | 55.9 | 13.5  |      |
| Progression Factor                | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.15                      | 0.48  |      | 0.46 | 0.43  |      |
| Incremental Delay, d2             | 0.2  | 0.0  | 0.0   | 10.6  | 0.1  | 0.2  | 5.6                       | 0.7   |      | 2.8  | 0.1   |      |
| Delay (s)                         | 39.7 | 38.9 | 39.0  | 56.1  | 39.6 | 40.0 | 64.8                      | 7.0   |      | 28.7 | 5.8   |      |
| Level of Service                  | D    | D    | D     | E     | D    | D    | E                         | A     |      | C    | A     |      |
| Approach Delay (s)                |      | 39.3 |       |       | 47.5 |      |                           | 8.9   |      |      | 6.3   |      |
| Approach LOS                      |      | D    |       |       | D    |      |                           | A     |      |      | A     |      |
| <b>Intersection Summary</b>       |      |      |       |       |      |      |                           |       |      |      |       |      |
| HCM 2000 Control Delay            |      |      | 12.0  |       |      |      | HCM 2000 Level of Service |       |      |      | B     |      |
| HCM 2000 Volume to Capacity ratio |      |      | 0.68  |       |      |      |                           |       |      |      |       |      |
| Actuated Cycle Length (s)         |      |      | 120.0 |       |      |      | Sum of lost time (s)      |       |      | 13.3 |       |      |
| Intersection Capacity Utilization |      |      | 70.5% |       |      |      | ICU Level of Service      |       |      | C    |       |      |
| Analysis Period (min)             |      |      | 15    |       |      |      |                           |       |      |      |       |      |
| c Critical Lane Group             |      |      |       |       |      |      |                           |       |      |      |       |      |

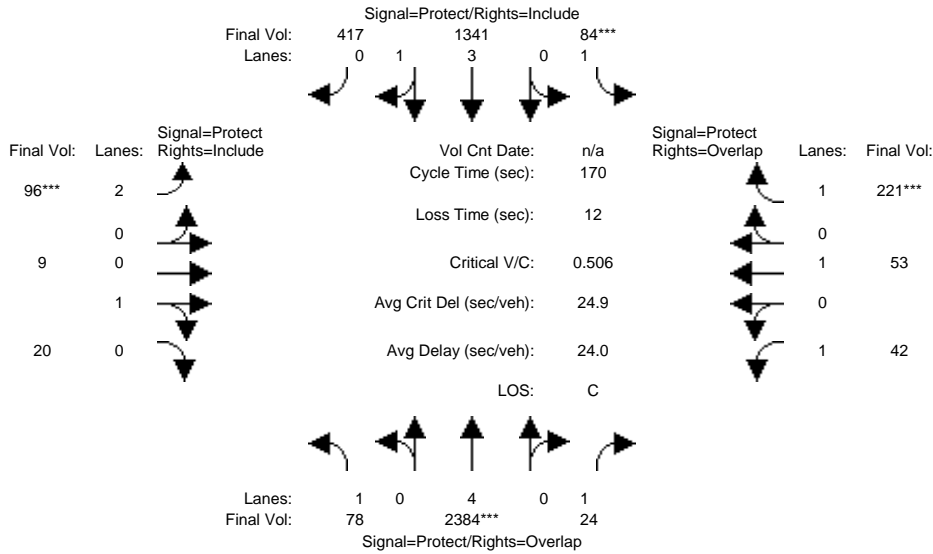
Summary Scenario Comparison Report (With Average Critical Delay)  
Future Volume Alternative

| Intersection                               | Existing AM |               |          |                    | Existing+P AM |               |          |                    | Bkgd AM |               |          |             |                    | Bkgd+P AM           |     |               |          |                    |
|--|-------------|---------------|----------|--------------------|---------------|---------------|----------|--------------------|---------|---------------|----------|-------------|--------------------|---------------------|-----|---------------|----------|--------------------|
|  | LOS         | Avg Del (sec) | Crit V/C | Avg Crit Del (sec) | LOS           | Avg Del (sec) | Crit V/C | Avg Crit Del (sec) | LOS     | Avg Del (sec) | Crit V/C | Crit Change | Avg Crit Del (sec) | Avg Crit Del Change | LOS | Avg Del (sec) | Crit V/C | Avg Crit Del (sec) |
| #4 Mathilda Ave & Almanor Ave              | C           | 24.0          | 0.506    | 24.9               | C             | 29.4          | 0.559    | 30.4               | C       | 26.6          | 0.814    | + 0.255     | 37.5               | + 7.2               | C   | 31.9          | 0.867    | 44.0               |
| #5 Mathilda Ave & San Aleso Ave            | A           | 9.6           | 0.515    | 9.2                | B             | 14.2          | 0.579    | 17.0               | B       | 14.0          | 0.709    | + 0.130     | 16.9               | - 0.2               | B-  | 18.6          | 0.772    | 24.8               |
| #6 Mathilda Ave & Maude Ave                | D           | 41.6          | 0.673    | 38.9               | D             | 43.2          | 0.717    | 41.1               | D       | 50.1          | 0.880    | + 0.163     | 70.3               | + 29.1              | D-  | 54.0          | 0.910    | 74.4               |
| #7 Mathilda Ave & Indio Ave                | C           | 29.6          | 0.636    | 28.3               | C             | 31.2          | 0.669    | 30.4               | D       | 41.6          | 0.928    | + 0.259     | 45.6               | + 15.1              | D   | 45.6          | 0.960    | 51.3               |
| #8 Mathilda Ave & California Ave           | C           | 25.4          | 0.542    | 19.0               | C             | 25.2          | 0.549    | 18.8               | C       | 30.4          | 0.765    | + 0.215     | 26.9               | + 8.1               | C   | 30.3          | 0.773    | 27.0               |
| #9 San Aleso Ave & Ahwanee Ave             | A           | 2.0           | 0.047    | 2.0                | B             | 6.4           | 0.291    | 6.4                | A       | 2.3           | 0.058    | - 0.232     | 2.3                | - 4.1               | B   | 6.7           | 0.306    | 6.7                |
| #10 Borregas Ave & Ahwanee Ave             | A           | 9.0           | 0.291    | 9.0                | A             | 9.4           | 0.306    | 9.4                | A       | 9.2           | 0.301    | - 0.005     | 9.2                | - 0.2               | A   | 9.6           | 0.317    | 9.6                |
| #11 Borregas Ave & Duane Ave               | B           | 4.1           | 0.158    | 4.1                | B             | 4.2           | 0.166    | 4.2                | B       | 4.1           | 0.159    | - 0.006     | 4.1                | - 0.1               | B   | 4.2           | 0.167    | 4.2                |
| #12 Borregas Ave/Sunnyvale Ave & Maude Ave | D           | 41.1          | 0.474    | 41.9               | D             | 40.8          | 0.524    | 41.4               | D       | 40.7          | 0.530    | + 0.006     | 41.5               | + 0.1               | D   | 40.7          | 0.580    | 41.5               |
| #13 Morse Ave & Ahwanee Ave                | C           | 9.0           | 0.314    | 9.0                | C             | 9.4           | 0.352    | 9.4                | C       | 9.0           | 0.325    | - 0.027     | 9.0                | - 0.4               | C   | 9.5           | 0.366    | 9.5                |
| #14 Morse Ave & Duane Ave                  | B           | 10.4          | 0.432    | 10.4               | B             | 10.5          | 0.439    | 10.5               | B       | 10.5          | 0.441    | + 0.002     | 10.5               | + 0.0               | B   | 10.7          | 0.448    | 10.7               |
| #15 Morse Ave & Maude Ave                  | B           | 4.2           | 0.203    | 4.2                | C             | 4.3           | 0.232    | 4.3                | C       | 4.2           | 0.226    | - 0.006     | 4.2                | - 0.1               | C   | 4.3           | 0.258    | 4.3                |
| #16 Fair Oaks Ave & Weddell Ave            | B           | 17.2          | 0.381    | 20.9               | B             | 17.2          | 0.387    | 20.9               | C+      | 20.4          | 0.539    | + 0.152     | 20.9               | + 0.0               | C+  | 20.3          | 0.542    | 21.0               |
| #17 Fair Oaks Ave & US 101 NB              | C           | 23.4          | 0.765    | 33.7               | C             | 23.3          | 0.765    | 33.7               | D+      | 37.8          | 1.016    | + 0.251     | 71.4               | + 37.7              | D+  | 37.7          | 1.016    | 71.4               |
| #18 Fair Oaks Ave & Ahwanee Ave            | C+          | 22.3          | 0.543    | 20.1               | C             | 23.3          | 0.557    | 21.3               | C+      | 21.7          | 0.640    | + 0.082     | 20.4               | - 0.9               | C+  | 22.8          | 0.655    | 21.8               |
| #19 Fair Oaks Ave & Duane Ave              | C-          | 34.6          | 0.627    | 34.7               | C-            | 34.7          | 0.636    | 35.5               | C-      | 33.6          | 0.714    | + 0.078     | 34.0               | - 1.5               | C-  | 33.9          | 0.723    | 34.9               |
| #20 Fair Oaks Ave & Wolfe Rd               | B           | 16.0          | 0.364    | 20.3               | B             | 15.8          | 0.364    | 20.3               | B       | 17.3          | 0.445    | + 0.081     | 22.3               | + 2.0               | B   | 17.1          | 0.445    | 22.3               |
| #21 Fair Oaks Ave & Maude Ave              | C           | 27.1          | 0.392    | 31.6               | C             | 27.6          | 0.425    | 32.2               | C-      | 32.6          | 0.488    | + 0.062     | 35.3               | + 3.1               | C-  | 33.1          | 0.530    | 36.2               |
| #22 Wolfe Rd & Maude Ave                   | C           | 2.6           | 0.135    | 2.6                | C             | 2.7           | 0.149    | 2.7                | E       | 2.8           | 0.200    | + 0.051     | 2.8                | + 0.1               | E   | 2.9           | 0.217    | 2.9                |
| #23 Wolfe Rd & Arques Ave                  | D           | 40.5          | 0.430    | 36.8               | D             | 40.3          | 0.430    | 36.7               | D       | 41.7          | 0.470    | + 0.041     | 39.6               | + 2.9               | D   | 41.8          | 0.461    | 39.8               |
| #24 Wolfe Rd & Central Expwy Ramps         | D+          | 37.9          | 0.485    | 38.3               | D+            | 36.7          | 0.556    | 55.0               | D       | 39.6          | 0.636    | + 0.080     | 61.4               | + 6.4               | D   | 40.4          | 0.654    | 62.4               |



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 78   | 2384 | 24   | 84   | 1341 | 417  | 96   | 9    | 20   | 42   | 53   | 221  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 78   | 2384 | 24   | 84   | 1341 | 417  | 96   | 9    | 20   | 42   | 53   | 221  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 78   | 2384 | 24   | 84   | 1341 | 417  | 96   | 9    | 20   | 42   | 53   | 221  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 78   | 2384 | 24   | 84   | 1341 | 417  | 96   | 9    | 20   | 42   | 53   | 221  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 78   | 2384 | 24   | 84   | 1341 | 417  | 96   | 9    | 20   | 42   | 53   | 221  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 78   | 2384 | 24   | 84   | 1341 | 417  | 96   | 9    | 20   | 42   | 53   | 221  |

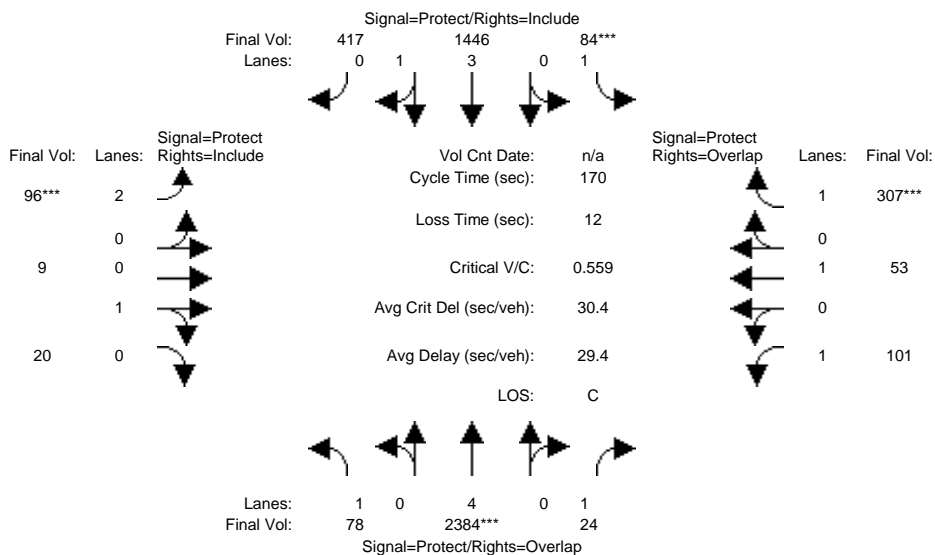
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.01 | 0.99 | 2.00 | 0.31 | 0.69 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 5718 | 1778 | 3150 | 559  | 1241 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |       |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.31 | 0.01  | 0.05 | 0.23 | 0.23  | 0.03 | 0.02 | 0.02 | 0.02 | 0.03 | 0.13 |
| Crit Moves:               | **** |      |       | **** |      |       | **** |      |      | **** |      |      |
| Green Time:               | 19.4 | 105  | 120.4 | 16.1 | 102  | 102.1 | 10.2 | 21.5 | 21.5 | 15.0 | 26.3 | 42.4 |
| Volume/Cap:               | 0.39 | 0.51 | 0.02  | 0.51 | 0.39 | 0.39  | 0.51 | 0.13 | 0.13 | 0.27 | 0.18 | 0.51 |
| Uniform Del:              | 69.8 | 17.9 | 7.3   | 73.2 | 17.7 | 17.7  | 77.4 | 65.9 | 65.9 | 72.4 | 62.5 | 54.8 |
| IncrcmntDel:              | 1.3  | 0.1  | 0.0   | 2.5  | 0.1  | 0.1   | 2.2  | 0.3  | 0.3  | 0.9  | 0.3  | 1.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 71.1 | 18.0 | 7.3   | 75.7 | 17.8 | 17.8  | 79.6 | 66.2 | 66.2 | 73.3 | 62.8 | 55.8 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 71.1 | 18.0 | 7.3   | 75.7 | 17.8 | 17.8  | 79.6 | 66.2 | 66.2 | 73.3 | 62.8 | 55.8 |
| LOS by Move:              | E    | B-   | A     | E-   | B    | B     | E-   | E    | E    | E    | E    | E+   |
| HCM2kAvgQ:                | 4    | 17   | 0     | 5    | 12   | 12    | 4    | 1    | 1    | 2    | 2    | 11   |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P AM

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 78   | 2384 | 24   | 84   | 1341 | 417  | 96   | 9    | 20   | 42   | 53   | 221  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 78   | 2384 | 24   | 84   | 1341 | 417  | 96   | 9    | 20   | 42   | 53   | 221  |
| Added Vol:     | 0    | 0    | 0    | 0    | 105  | 0    | 0    | 0    | 0    | 59   | 0    | 86   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 78   | 2384 | 24   | 84   | 1446 | 417  | 96   | 9    | 20   | 101  | 53   | 307  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 78   | 2384 | 24   | 84   | 1446 | 417  | 96   | 9    | 20   | 101  | 53   | 307  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 78   | 2384 | 24   | 84   | 1446 | 417  | 96   | 9    | 20   | 101  | 53   | 307  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 78   | 2384 | 24   | 84   | 1446 | 417  | 96   | 9    | 20   | 101  | 53   | 307  |

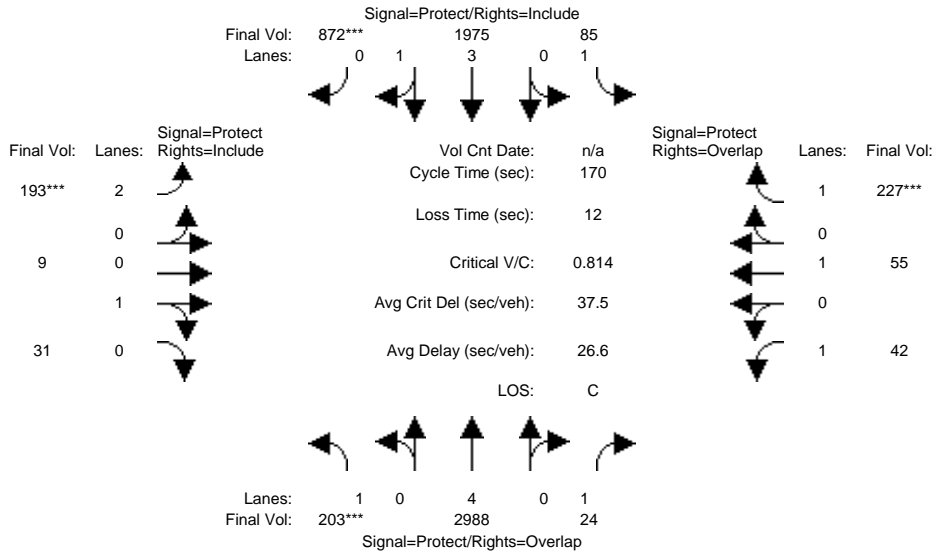
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.07 | 0.93 | 2.00 | 0.31 | 0.69 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 5818 | 1678 | 3150 | 559  | 1241 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |       |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.31 | 0.01  | 0.05 | 0.25 | 0.25 | 0.03 | 0.02 | 0.02 | 0.06 | 0.03 | 0.18 |
| Crit Moves:               | **** |      |       | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 16.7 | 95.4 | 119.2 | 14.6 | 93.3 | 93.3 | 9.3  | 24.2 | 24.2 | 23.8 | 38.7 | 53.3 |
| Volume/Cap:               | 0.45 | 0.56 | 0.02  | 0.56 | 0.45 | 0.45 | 0.56 | 0.11 | 0.11 | 0.41 | 0.12 | 0.56 |
| Uniform Del:              | 72.3 | 23.9 | 7.7   | 74.6 | 23.1 | 23.1 | 78.4 | 63.5 | 63.5 | 66.7 | 52.1 | 48.5 |
| IncrcmntDel:              | 1.9  | 0.2  | 0.0   | 4.7  | 0.1  | 0.1  | 4.1  | 0.2  | 0.2  | 1.1  | 0.1  | 1.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 74.2 | 24.0 | 7.7   | 79.3 | 23.1 | 23.1 | 82.5 | 63.7 | 63.7 | 67.9 | 52.2 | 49.8 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 74.2 | 24.0 | 7.7   | 79.3 | 23.1 | 23.1 | 82.5 | 63.7 | 63.7 | 67.9 | 52.2 | 49.8 |
| LOS by Move:              | E    | C    | A     | E-   | C    | C    | F    | E    | E    | E    | D-   | D    |
| HCM2kAvgQ:                | 4    | 19   | 0     | 5    | 14   | 14   | 4    | 1    | 1    | 5    | 2    | 14   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 203  | 2988 | 24   | 85   | 1975 | 872  | 193  | 9    | 31   | 42   | 55   | 227  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 203  | 2988 | 24   | 85   | 1975 | 872  | 193  | 9    | 31   | 42   | 55   | 227  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 203  | 2988 | 24   | 85   | 1975 | 872  | 193  | 9    | 31   | 42   | 55   | 227  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 203  | 2988 | 24   | 85   | 1975 | 872  | 193  | 9    | 31   | 42   | 55   | 227  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 203  | 2988 | 24   | 85   | 1975 | 872  | 193  | 9    | 31   | 42   | 55   | 227  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 203  | 2988 | 24   | 85   | 1975 | 872  | 193  | 9    | 31   | 42   | 55   | 227  |

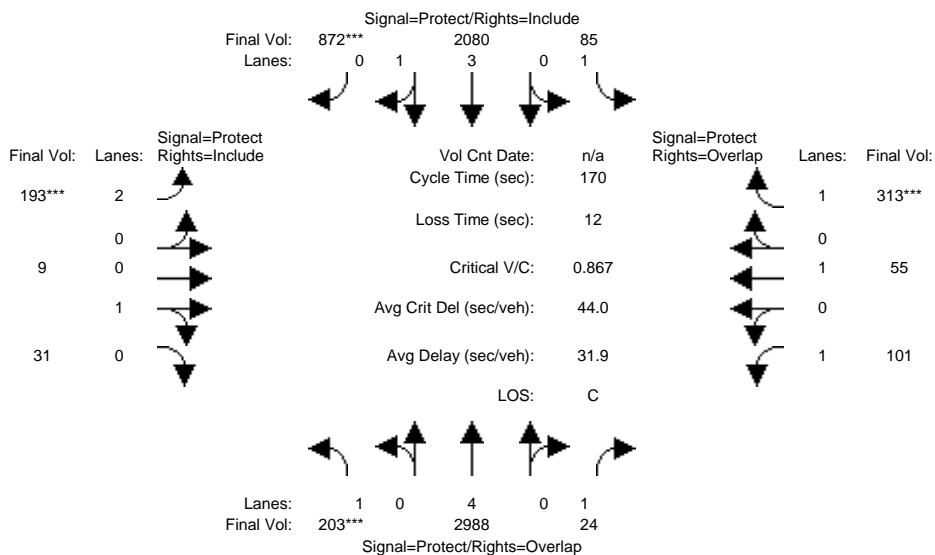
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.00 | 1.00 | 2.00 | 0.23 | 0.77 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 5700 | 1750 | 3150 | 405  | 1395 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |       |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.12 | 0.39 | 0.01  | 0.05 | 0.35 | 0.50  | 0.06 | 0.02 | 0.02 | 0.02 | 0.03 | 0.13 |
| Crit Moves:               | **** |      |       |      |      | ****  | **** |      |      |      |      | **** |
| Green Time:               | 24.2 | 114  | 126.4 | 14.1 | 104  | 104.0 | 12.8 | 17.5 | 17.5 | 12.2 | 16.9 | 31.0 |
| Volume/Cap:               | 0.81 | 0.59 | 0.02  | 0.59 | 0.57 | 0.81  | 0.81 | 0.22 | 0.22 | 0.33 | 0.29 | 0.71 |
| Uniform Del:              | 70.7 | 15.1 | 5.7   | 75.1 | 19.6 | 25.5  | 77.4 | 70.0 | 70.0 | 75.0 | 71.0 | 65.3 |
| IncrcmntDel:              | 18.2 | 0.2  | 0.0   | 6.1  | 0.2  | 1.6   | 19.0 | 0.6  | 0.6  | 1.6  | 0.9  | 7.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 89.0 | 15.3 | 5.7   | 81.2 | 19.7 | 27.1  | 96.5 | 70.6 | 70.6 | 76.6 | 71.8 | 72.5 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 89.0 | 15.3 | 5.7   | 81.2 | 19.7 | 27.1  | 96.5 | 70.6 | 70.6 | 76.6 | 71.8 | 72.5 |
| LOS by Move:              | F    | B    | A     | F    | B-   | C     | F    | E    | E    | E-   | E    | E    |
| HCM2kAvgQ:                | 11   | 20   | 0     | 5    | 20   | 38    | 8    | 2    | 2    | 3    | 3    | 13   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 203  | 2988 | 24   | 85   | 1975 | 872  | 193  | 9    | 31   | 42   | 55   | 227  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 203  | 2988 | 24   | 85   | 1975 | 872  | 193  | 9    | 31   | 42   | 55   | 227  |
| Added Vol:     | 0    | 0    | 0    | 0    | 105  | 0    | 0    | 0    | 0    | 59   | 0    | 86   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 203  | 2988 | 24   | 85   | 2080 | 872  | 193  | 9    | 31   | 101  | 55   | 313  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 203  | 2988 | 24   | 85   | 2080 | 872  | 193  | 9    | 31   | 101  | 55   | 313  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 203  | 2988 | 24   | 85   | 2080 | 872  | 193  | 9    | 31   | 101  | 55   | 313  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 203  | 2988 | 24   | 85   | 2080 | 872  | 193  | 9    | 31   | 101  | 55   | 313  |

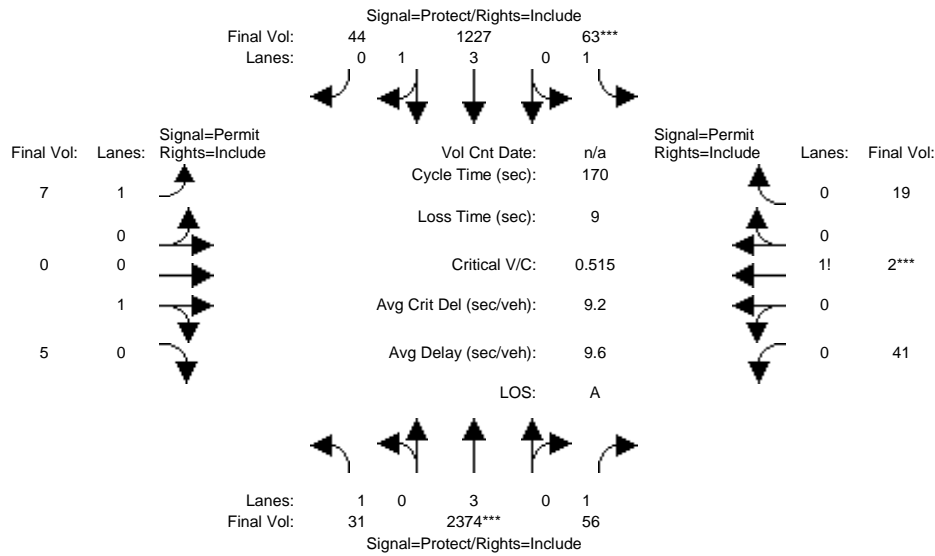
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.00 | 1.00 | 2.00 | 0.23 | 0.77 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 5700 | 1750 | 3150 | 405  | 1395 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |       |      |      |      |       |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|------|-------|------|------|------|------|------|
| Vol/Sat:                  | 0.12 | 0.39 | 0.01  | 0.05 | 0.36 | 0.50 | 0.06  | 0.02 | 0.02 | 0.06 | 0.03 | 0.18 |
| Crit Moves:               | ***  |      |       |      |      | ***  | ***   |      |      |      |      | ***  |
| Green Time:               | 22.7 | 107  | 125.8 | 13.2 | 97.7 | 97.7 | 12.0  | 19.0 | 19.0 | 18.6 | 25.5 | 38.8 |
| Volume/Cap:               | 0.87 | 0.62 | 0.02  | 0.62 | 0.63 | 0.87 | 0.87  | 0.20 | 0.20 | 0.53 | 0.19 | 0.78 |
| Uniform Del:              | 72.1 | 19.1 | 5.8   | 76.0 | 24.2 | 30.6 | 78.2  | 68.6 | 68.6 | 71.5 | 63.2 | 61.7 |
| IncrcmntDel:              | 27.2 | 0.3  | 0.0   | 8.7  | 0.3  | 2.6  | 28.2  | 0.5  | 0.5  | 2.7  | 0.3  | 9.8  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 99.3 | 19.4 | 5.8   | 84.6 | 24.5 | 33.2 | 106.4 | 69.1 | 69.1 | 74.3 | 63.5 | 71.4 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 99.3 | 19.4 | 5.8   | 84.6 | 24.5 | 33.2 | 106.4 | 69.1 | 69.1 | 74.3 | 63.5 | 71.4 |
| LOS by Move:              | F    | B-   | A     | F    | C    | C-   | F     | E    | E    | E    | E    | E    |
| HCM2kAvgQ:                | 11   | 22   | 0     | 6    | 24   | 43   | 8     | 2    | 2    | 6    | 3    | 18   |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing AM

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 31   | 2374 | 56   | 63   | 1227 | 44   | 7    | 0    | 5    | 41   | 2    | 19   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 31   | 2374 | 56   | 63   | 1227 | 44   | 7    | 0    | 5    | 41   | 2    | 19   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 31   | 2374 | 56   | 63   | 1227 | 44   | 7    | 0    | 5    | 41   | 2    | 19   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 31   | 2374 | 56   | 63   | 1227 | 44   | 7    | 0    | 5    | 41   | 2    | 19   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 31   | 2374 | 56   | 63   | 1227 | 44   | 7    | 0    | 5    | 41   | 2    | 19   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 31   | 2374 | 56   | 63   | 1227 | 44   | 7    | 0    | 5    | 41   | 2    | 19   |

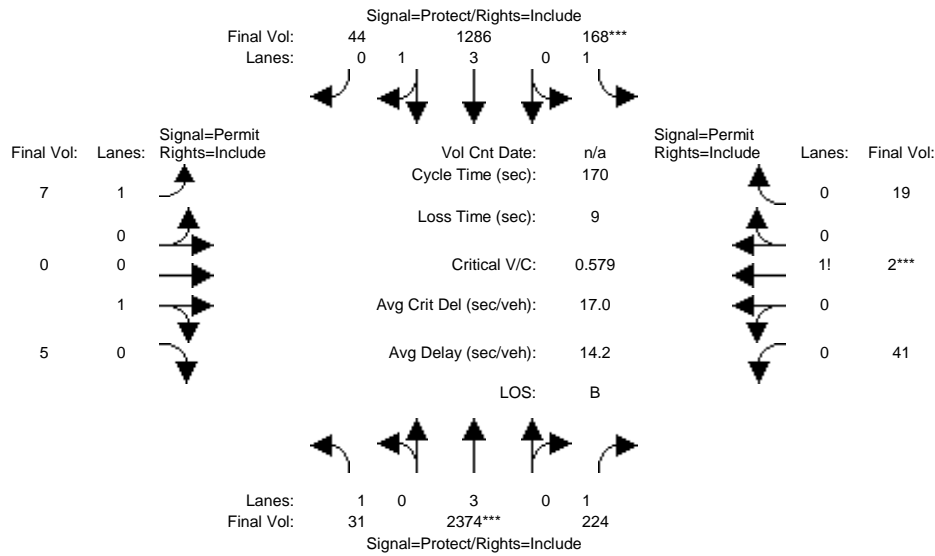
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.86 | 0.14 | 1.00 | 0.00 | 1.00 | 0.66 | 0.03 | 0.31 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 7240 | 260  | 1750 | 0    | 1800 | 1157 | 56   | 536  |

| Capacity Analysis Module: |      |      |       |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.42 | 0.03  | 0.04 | 0.17 | 0.17  | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 | 0.04 |
| Crit Moves:               | **** |      |       | **** |      |       |      |      |      | **** |      |      |
| Green Time:               | 29.2 | 137  | 137.4 | 11.9 | 120  | 120.1 | 11.7 | 0.0  | 11.7 | 11.7 | 11.7 | 11.7 |
| Volume/Cap:               | 0.10 | 0.52 | 0.04  | 0.52 | 0.24 | 0.24  | 0.06 | 0.00 | 0.04 | 0.52 | 0.52 | 0.52 |
| Uniform Del:              | 59.4 | 5.3  | 3.2   | 76.3 | 8.8  | 8.8   | 74.0 | 0.0  | 73.9 | 76.4 | 76.4 | 76.4 |
| IncrcmntDel:              | 0.2  | 0.1  | 0.0   | 3.8  | 0.0  | 0.0   | 0.2  | 0.0  | 0.1  | 3.8  | 3.8  | 3.8  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 59.5 | 5.4  | 3.2   | 80.0 | 8.8  | 8.8   | 74.2 | 0.0  | 74.1 | 80.2 | 80.2 | 80.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 59.5 | 5.4  | 3.2   | 80.0 | 8.8  | 8.8   | 74.2 | 0.0  | 74.1 | 80.2 | 80.2 | 80.2 |
| LOS by Move:              | E+   | A    | A     | F    | A    | A     | E    | A    | E    | F    | F    | F    |
| HCM2kAvgQ:                | 1    | 13   | 1     | 3    | 6    | 6     | 0    | 0    | 0    | 4    | 4    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 31          | 2374 | 56   | 63          | 1227 | 44   | 7          | 0    | 5    | 41         | 2    | 19   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 31          | 2374 | 56   | 63          | 1227 | 44   | 7          | 0    | 5    | 41         | 2    | 19   |
| Added Vol:     | 0           | 0    | 168  | 105         | 59   | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 31          | 2374 | 224  | 168         | 1286 | 44   | 7          | 0    | 5    | 41         | 2    | 19   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 31          | 2374 | 224  | 168         | 1286 | 44   | 7          | 0    | 5    | 41         | 2    | 19   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 31          | 2374 | 224  | 168         | 1286 | 44   | 7          | 0    | 5    | 41         | 2    | 19   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 31          | 2374 | 224  | 168         | 1286 | 44   | 7          | 0    | 5    | 41         | 2    | 19   |

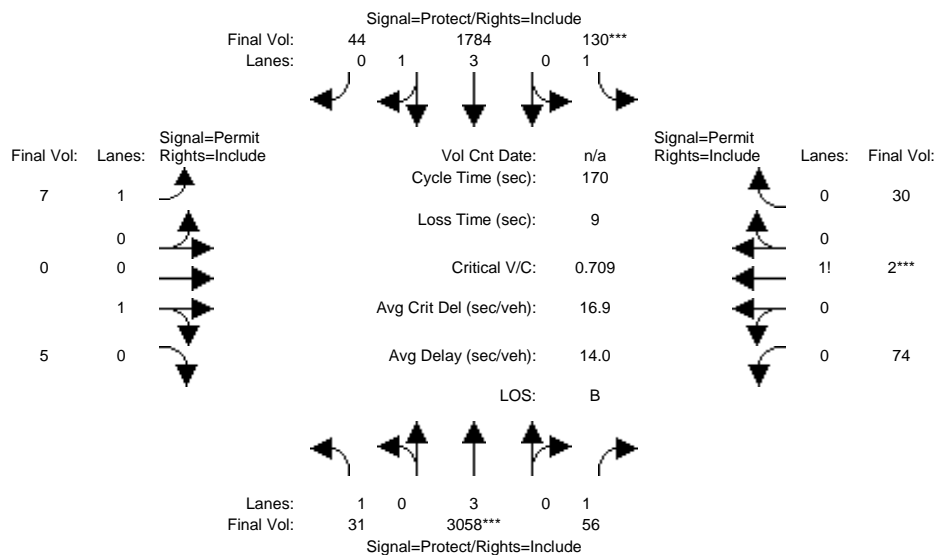
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 0.99 | 0.95 | 0.92       | 1.00 | 0.95 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.86 | 0.14 | 1.00       | 0.00 | 1.00 | 0.66       | 0.03 | 0.31 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 7251 | 248  | 1750       | 0    | 1800 | 1157       | 56   | 536  |

| Capacity Analysis Module: | North Bound |      |       | South Bound |      |       | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|-------|-------------|------|-------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.02        | 0.42 | 0.13  | 0.10        | 0.18 | 0.18  | 0.00       | 0.00 | 0.00 | 0.04       | 0.04 | 0.04 |
| Crit Moves:               | ****        |      |       | ****        |      |       |            |      |      | ****       |      |      |
| Green Time:               | 28.4        | 122  | 122.4 | 28.2        | 122  | 122.2 | 10.4       | 0.0  | 10.4 | 10.4       | 10.4 | 10.4 |
| Volume/Cap:               | 0.11        | 0.58 | 0.18  | 0.58        | 0.25 | 0.25  | 0.07       | 0.00 | 0.05 | 0.58       | 0.58 | 0.58 |
| Uniform Del:              | 60.1        | 11.4 | 7.6   | 65.4        | 8.2  | 8.2   | 75.2       | 0.0  | 75.1 | 77.7       | 77.7 | 77.7 |
| IncrcmntDel:              | 0.2         | 0.2  | 0.1   | 2.9         | 0.0  | 0.0   | 0.3        | 0.0  | 0.2  | 7.7        | 7.7  | 7.7  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0   | 0.0         | 0.0  | 0.0   | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00  | 1.00       | 0.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 60.2        | 11.6 | 7.7   | 68.3        | 8.2  | 8.2   | 75.5       | 0.0  | 75.3 | 85.3       | 85.3 | 85.3 |
| User DelAdj:              | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 60.2        | 11.6 | 7.7   | 68.3        | 8.2  | 8.2   | 75.5       | 0.0  | 75.3 | 85.3       | 85.3 | 85.3 |
| LOS by Move:              | E           | B+   | A     | E           | A    | A     | E-         | A    | E-   | F          | F    | F    |
| HCM2kAvgQ:                | 1           | 19   | 4     | 9           | 6    | 6     | 0          | 0    | 0    | 4          | 4    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Mathilda Ave NB |      |      | Mathilda Ave SB |      |      | San Aleso Ave EB |      |      | San Aleso Ave WB |      |      |
|----------------|-----------------|------|------|-----------------|------|------|------------------|------|------|------------------|------|------|
| Base Vol:      | 31              | 3058 | 56   | 130             | 1784 | 44   | 7                | 0    | 5    | 74               | 2    | 30   |
| Growth Adj:    | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 |
| Initial Bse:   | 31              | 3058 | 56   | 130             | 1784 | 44   | 7                | 0    | 5    | 74               | 2    | 30   |
| Added Vol:     | 0               | 0    | 0    | 0               | 0    | 0    | 0                | 0    | 0    | 0                | 0    | 0    |
| PasserByVol:   | 0               | 0    | 0    | 0               | 0    | 0    | 0                | 0    | 0    | 0                | 0    | 0    |
| Initial Fut:   | 31              | 3058 | 56   | 130             | 1784 | 44   | 7                | 0    | 5    | 74               | 2    | 30   |
| User Adj:      | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 |
| PHF Adj:       | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 |
| PHF Volume:    | 31              | 3058 | 56   | 130             | 1784 | 44   | 7                | 0    | 5    | 74               | 2    | 30   |
| Reduct Vol:    | 0               | 0    | 0    | 0               | 0    | 0    | 0                | 0    | 0    | 0                | 0    | 0    |
| Reduced Vol:   | 31              | 3058 | 56   | 130             | 1784 | 44   | 7                | 0    | 5    | 74               | 2    | 30   |
| PCE Adj:       | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 |
| MLF Adj:       | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 |
| Final Volume:  | 31              | 3058 | 56   | 130             | 1784 | 44   | 7                | 0    | 5    | 74               | 2    | 30   |

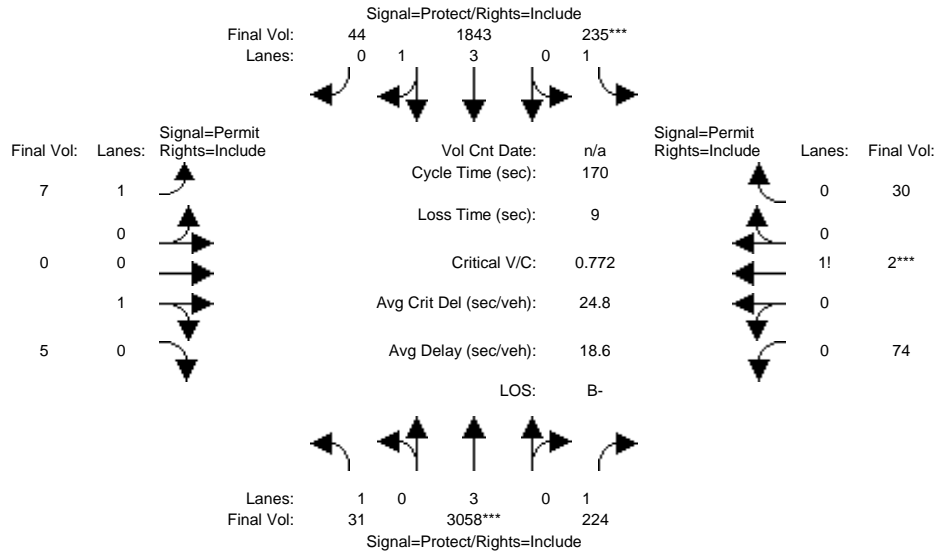
| Saturation Flow Module: | Mathilda Ave NB |      |      | Mathilda Ave SB |      |      | San Aleso Ave EB |      |      | San Aleso Ave WB |      |      |
|-------------------------|-----------------|------|------|-----------------|------|------|------------------|------|------|------------------|------|------|
| Sat/Lane:               | 1900            | 1900 | 1900 | 1900            | 1900 | 1900 | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 |
| Adjustment:             | 0.92            | 1.00 | 0.92 | 0.92            | 0.99 | 0.95 | 0.92             | 1.00 | 0.95 | 0.92             | 0.92 | 0.92 |
| Lanes:                  | 1.00            | 3.00 | 1.00 | 1.00            | 3.90 | 0.10 | 1.00             | 0.00 | 1.00 | 0.70             | 0.02 | 0.28 |
| Final Sat.:             | 1750            | 5700 | 1750 | 1750            | 7319 | 181  | 1750             | 0    | 1800 | 1222             | 33   | 495  |

| Capacity Analysis Module: | Mathilda Ave NB |      |       | Mathilda Ave SB |      |       | San Aleso Ave EB |      |      | San Aleso Ave WB |      |      |
|---------------------------|-----------------|------|-------|-----------------|------|-------|------------------|------|------|------------------|------|------|
| Vol/Sat:                  | 0.02            | 0.54 | 0.03  | 0.07            | 0.24 | 0.24  | 0.00             | 0.00 | 0.00 | 0.06             | 0.06 | 0.06 |
| Crit Moves:               | ****            |      |       | ****            |      |       |                  |      |      | ****             |      |      |
| Green Time:               | 21.2            | 129  | 128.7 | 17.8            | 125  | 125.3 | 14.5             | 0.0  | 14.5 | 14.5             | 14.5 | 14.5 |
| Volume/Cap:               | 0.14            | 0.71 | 0.04  | 0.71            | 0.33 | 0.33  | 0.05             | 0.00 | 0.03 | 0.71             | 0.71 | 0.71 |
| Uniform Del:              | 66.3            | 10.8 | 5.2   | 73.6            | 7.8  | 7.8   | 71.4             | 0.0  | 71.3 | 75.7             | 75.7 | 75.7 |
| IncrcmntDel:              | 0.3             | 0.6  | 0.0   | 12.1            | 0.0  | 0.0   | 0.1              | 0.0  | 0.1  | 14.6             | 14.6 | 14.6 |
| InitQueueDel:             | 0.0             | 0.0  | 0.0   | 0.0             | 0.0  | 0.0   | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  |
| Delay Adj:                | 1.00            | 1.00 | 1.00  | 1.00            | 1.00 | 1.00  | 1.00             | 0.00 | 1.00 | 1.00             | 1.00 | 1.00 |
| Delay/Veh:                | 66.6            | 11.4 | 5.2   | 85.7            | 7.8  | 7.8   | 71.5             | 0.0  | 71.4 | 90.3             | 90.3 | 90.3 |
| User DelAdj:              | 1.00            | 1.00 | 1.00  | 1.00            | 1.00 | 1.00  | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 |
| AdjDel/Veh:               | 66.6            | 11.4 | 5.2   | 85.7            | 7.8  | 7.8   | 71.5             | 0.0  | 71.4 | 90.3             | 90.3 | 90.3 |
| LOS by Move:              | E               | B+   | A     | F               | A    | A     | E                | A    | E    | F                | F    | F    |
| HCM2kAvgQ:                | 1               | 26   | 1     | 7               | 8    | 8     | 0                | 0    | 0    | 7                | 7    | 7    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 31   | 3058 | 56   | 130  | 1784 | 44   | 7    | 0    | 5    | 74   | 2    | 30   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 31   | 3058 | 56   | 130  | 1784 | 44   | 7    | 0    | 5    | 74   | 2    | 30   |
| Added Vol:     | 0    | 0    | 168  | 105  | 59   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 31   | 3058 | 224  | 235  | 1843 | 44   | 7    | 0    | 5    | 74   | 2    | 30   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 31   | 3058 | 224  | 235  | 1843 | 44   | 7    | 0    | 5    | 74   | 2    | 30   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 31   | 3058 | 224  | 235  | 1843 | 44   | 7    | 0    | 5    | 74   | 2    | 30   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 31   | 3058 | 224  | 235  | 1843 | 44   | 7    | 0    | 5    | 74   | 2    | 30   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.90 | 0.10 | 1.00 | 0.00 | 1.00 | 0.70 | 0.02 | 0.28 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 7325 | 175  | 1750 | 0    | 1800 | 1222 | 33   | 495  |

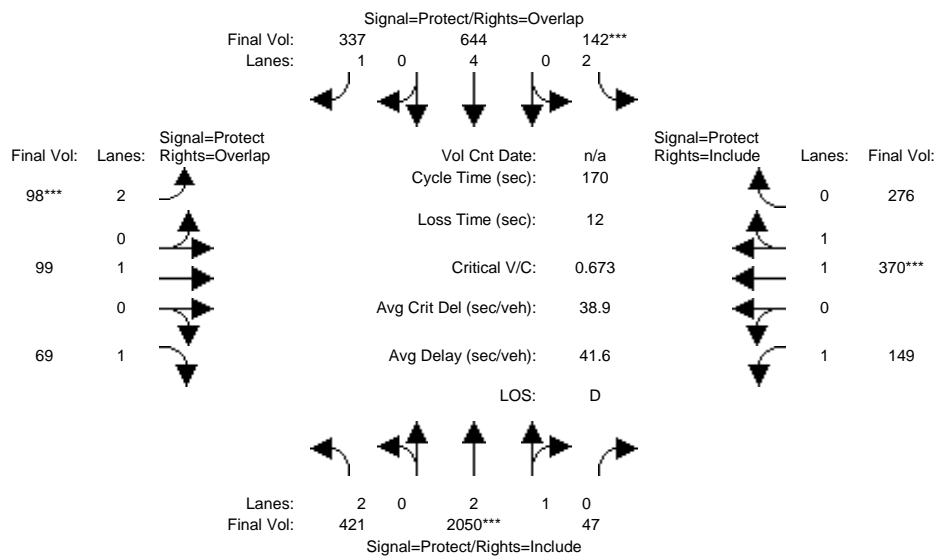
| Capacity Analysis Module: |      |      |       |      |      |       |      |      |      |       |      |       |
|---------------------------|------|------|-------|------|------|-------|------|------|------|-------|------|-------|
| Vol/Sat:                  | 0.02 | 0.54 | 0.13  | 0.13 | 0.25 | 0.25  | 0.00 | 0.00 | 0.00 | 0.06  | 0.06 | 0.06  |
| Crit Moves:               | **** |      |       | **** |      |       |      |      |      | ****  |      |       |
| Green Time:               | 20.8 | 118  | 118.1 | 29.6 | 127  | 126.9 | 13.3 | 0.0  | 13.3 | 13.3  | 13.3 | 13.3  |
| Volume/Cap:               | 0.15 | 0.77 | 0.18  | 0.77 | 0.34 | 0.34  | 0.05 | 0.00 | 0.04 | 0.77  | 0.77 | 0.77  |
| Uniform Del:              | 66.7 | 17.1 | 9.1   | 67.0 | 7.3  | 7.3   | 72.5 | 0.0  | 72.4 | 76.8  | 76.8 | 76.8  |
| IncrcmntDel:              | 0.3  | 1.0  | 0.1   | 11.6 | 0.0  | 0.0   | 0.2  | 0.0  | 0.1  | 23.2  | 23.2 | 23.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0   |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 1.00  | 1.00 | 1.00  |
| Delay/Veh:                | 67.0 | 18.1 | 9.2   | 78.6 | 7.3  | 7.3   | 72.6 | 0.0  | 72.5 | 100.1 | 100  | 100.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00  |
| AdjDel/Veh:               | 67.0 | 18.1 | 9.2   | 78.6 | 7.3  | 7.3   | 72.6 | 0.0  | 72.5 | 100.1 | 100  | 100.1 |
| LOS by Move:              | E    | B-   | A     | E-   | A    | A     | E    | A    | E    | F     | F    | F     |
| HCM2kAvgQ:                | 1    | 33   | 4     | 13   | 8    | 8     | 0    | 0    | 0    | 8     | 8    | 8     |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 421  | 2050 | 47   | 142  | 644  | 337  | 98   | 99   | 69   | 149  | 370  | 276  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 421  | 2050 | 47   | 142  | 644  | 337  | 98   | 99   | 69   | 149  | 370  | 276  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 421  | 2050 | 47   | 142  | 644  | 337  | 98   | 99   | 69   | 149  | 370  | 276  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 421  | 2050 | 47   | 142  | 644  | 337  | 98   | 99   | 69   | 149  | 370  | 276  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 421  | 2050 | 47   | 142  | 644  | 337  | 98   | 99   | 69   | 149  | 370  | 276  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 421  | 2050 | 47   | 142  | 644  | 337  | 98   | 99   | 69   | 149  | 370  | 276  |

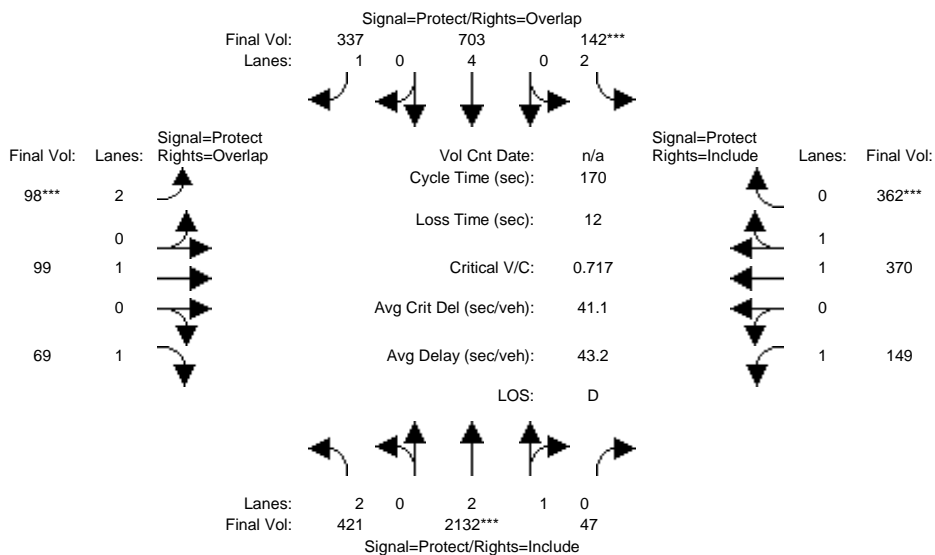
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.93 | 0.07 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.12 | 0.88 |
| Final Sat.:             | 3150 | 5474 | 126  | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 2118 | 1580 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.13 | 0.37 | 0.37 | 0.05 | 0.08 | 0.19 | 0.03 | 0.05 | 0.04 | 0.09 | 0.17 | 0.17 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 48.0 | 94.6 | 94.6 | 11.4 | 58.0 | 65.9 | 7.9  | 21.2 | 69.3 | 30.8 | 44.1 | 44.1 |
| Volume/Cap:               | 0.47 | 0.67 | 0.67 | 0.67 | 0.25 | 0.50 | 0.67 | 0.42 | 0.10 | 0.47 | 0.67 | 0.67 |
| Uniform Del:              | 50.5 | 26.7 | 26.7 | 77.5 | 40.3 | 39.5 | 79.8 | 68.7 | 31.1 | 62.3 | 56.5 | 56.5 |
| IncrcmntDel:              | 0.4  | 0.6  | 0.6  | 8.2  | 0.1  | 0.6  | 11.7 | 1.2  | 0.1  | 1.1  | 1.9  | 1.9  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 50.9 | 27.3 | 27.3 | 85.7 | 40.4 | 40.1 | 91.5 | 69.8 | 31.1 | 63.4 | 58.3 | 58.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 50.9 | 27.3 | 27.3 | 85.7 | 40.4 | 40.1 | 91.5 | 69.8 | 31.1 | 63.4 | 58.3 | 58.3 |
| LOS by Move:              | D    | C    | C    | F    | D    | D    | F    | E    | C    | E    | E+   | E+   |
| HCM2kAvgQ:                | 10   | 25   | 25   | 4    | 6    | 14   | 4    | 5    | 2    | 8    | 16   | 16   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 421  | 2050 | 47   | 142  | 644  | 337  | 98   | 99   | 69   | 149  | 370  | 276  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 421  | 2050 | 47   | 142  | 644  | 337  | 98   | 99   | 69   | 149  | 370  | 276  |
| Added Vol:     | 0    | 82   | 0    | 0    | 59   | 0    | 0    | 0    | 0    | 0    | 0    | 86   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 421  | 2132 | 47   | 142  | 703  | 337  | 98   | 99   | 69   | 149  | 370  | 362  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 421  | 2132 | 47   | 142  | 703  | 337  | 98   | 99   | 69   | 149  | 370  | 362  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 421  | 2132 | 47   | 142  | 703  | 337  | 98   | 99   | 69   | 149  | 370  | 362  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 421  | 2132 | 47   | 142  | 703  | 337  | 98   | 99   | 69   | 149  | 370  | 362  |

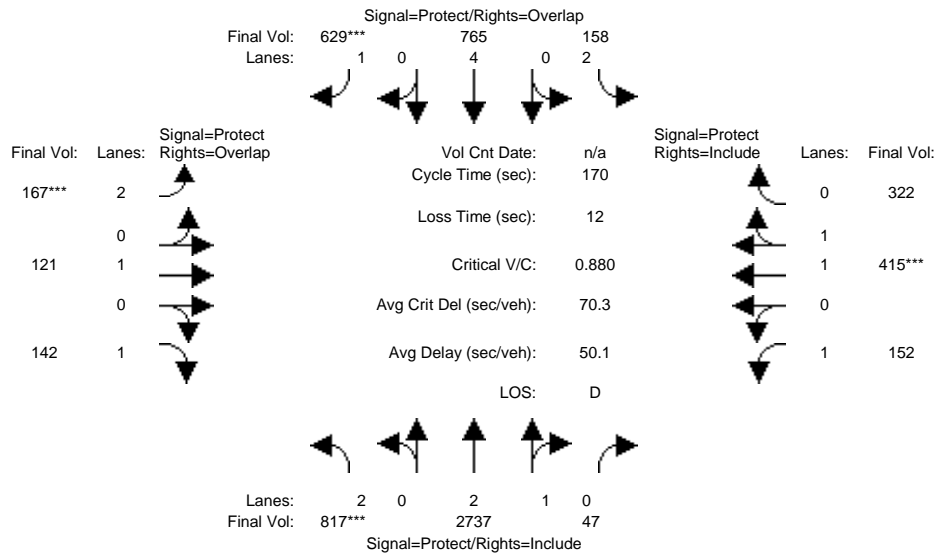
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 |
| Lanes:                  | 2.00 | 2.93 | 0.07 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 3150 | 5479 | 121  | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 1899 | 1800 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.13 | 0.39 | 0.39 | 0.05 | 0.09 | 0.19 | 0.03 | 0.05 | 0.04 | 0.09 | 0.19 | 0.20 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 46.6 | 92.3 | 92.3 | 10.7 | 56.3 | 63.7 | 7.4  | 22.5 | 69.1 | 32.6 | 47.7 | 47.7 |
| Volume/Cap:               | 0.49 | 0.72 | 0.72 | 0.72 | 0.28 | 0.51 | 0.72 | 0.39 | 0.10 | 0.44 | 0.69 | 0.72 |
| Uniform Del:              | 51.7 | 29.1 | 29.1 | 78.2 | 41.9 | 41.2 | 80.3 | 67.5 | 31.2 | 60.7 | 54.7 | 55.1 |
| IncrcmntDel:              | 0.4  | 0.8  | 0.8  | 11.9 | 0.1  | 0.7  | 16.6 | 1.0  | 0.1  | 0.9  | 2.0  | 2.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 52.1 | 29.9 | 29.9 | 90.1 | 41.9 | 41.9 | 96.9 | 68.5 | 31.2 | 61.7 | 56.7 | 57.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 52.1 | 29.9 | 29.9 | 90.1 | 41.9 | 41.9 | 96.9 | 68.5 | 31.2 | 61.7 | 56.7 | 57.6 |
| LOS by Move:              | D-   | C    | C    | F    | D    | D    | F    | E    | C    | E    | E+   | E+   |
| HCM2kAvgQ:                | 10   | 28   | 28   | 5    | 6    | 14   | 4    | 5    | 2    | 8    | 18   | 19   |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd AM

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 817  | 2737 | 47   | 158  | 765  | 629  | 167  | 121  | 142  | 152  | 415  | 322  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 817  | 2737 | 47   | 158  | 765  | 629  | 167  | 121  | 142  | 152  | 415  | 322  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 817  | 2737 | 47   | 158  | 765  | 629  | 167  | 121  | 142  | 152  | 415  | 322  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 817  | 2737 | 47   | 158  | 765  | 629  | 167  | 121  | 142  | 152  | 415  | 322  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 817  | 2737 | 47   | 158  | 765  | 629  | 167  | 121  | 142  | 152  | 415  | 322  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 817  | 2737 | 47   | 158  | 765  | 629  | 167  | 121  | 142  | 152  | 415  | 322  |

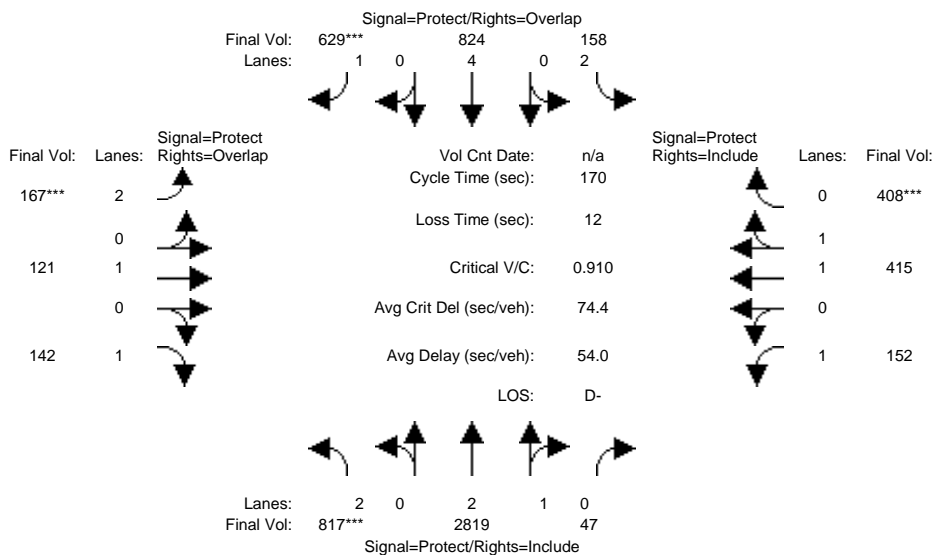
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.95 | 0.05 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.10 | 0.90 |
| Final Sat.:             | 3150 | 5505 | 95   | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 2082 | 1616 |

| Capacity Analysis Module: |      |      |      |       |      |      |       |      |      |      |      |      |
|---------------------------|------|------|------|-------|------|------|-------|------|------|------|------|------|
| Vol/Sat:                  | 0.26 | 0.50 | 0.50 | 0.05  | 0.10 | 0.36 | 0.05  | 0.06 | 0.08 | 0.09 | 0.20 | 0.20 |
| Crit Moves:               | ***  |      |      |       |      | ***  | ***   |      |      |      | ***  |      |
| Green Time:               | 50.1 | 99.3 | 99.3 | 10.0  | 59.2 | 69.4 | 10.2  | 20.6 | 70.7 | 28.1 | 38.5 | 38.5 |
| Volume/Cap:               | 0.88 | 0.85 | 0.85 | 0.85  | 0.29 | 0.88 | 0.88  | 0.53 | 0.20 | 0.53 | 0.88 | 0.88 |
| Uniform Del:              | 57.1 | 29.3 | 29.3 | 79.3  | 40.2 | 46.5 | 79.3  | 70.1 | 31.6 | 64.8 | 63.5 | 63.5 |
| IncrcmntDel:              | 9.8  | 2.3  | 2.3  | 29.4  | 0.1  | 12.2 | 34.4  | 2.2  | 0.1  | 1.8  | 10.7 | 10.7 |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 66.9 | 31.6 | 31.6 | 108.7 | 40.2 | 58.7 | 113.7 | 72.3 | 31.7 | 66.6 | 74.2 | 74.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 66.9 | 31.6 | 31.6 | 108.7 | 40.2 | 58.7 | 113.7 | 72.3 | 31.7 | 66.6 | 74.2 | 74.2 |
| LOS by Move:              | E    | C    | C    | F     | D    | E+   | F     | E    | C    | E    | E    | E    |
| HCM2kAvgQ:                | 23   | 38   | 38   | 5     | 7    | 34   | 8     | 6    | 5    | 8    | 22   | 22   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 817  | 2737 | 47   | 158  | 765  | 629  | 167  | 121  | 142  | 152  | 415  | 322  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 817  | 2737 | 47   | 158  | 765  | 629  | 167  | 121  | 142  | 152  | 415  | 322  |
| Added Vol:     | 0    | 82   | 0    | 0    | 59   | 0    | 0    | 0    | 0    | 0    | 0    | 86   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 817  | 2819 | 47   | 158  | 824  | 629  | 167  | 121  | 142  | 152  | 415  | 408  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 817  | 2819 | 47   | 158  | 824  | 629  | 167  | 121  | 142  | 152  | 415  | 408  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 817  | 2819 | 47   | 158  | 824  | 629  | 167  | 121  | 142  | 152  | 415  | 408  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 817  | 2819 | 47   | 158  | 824  | 629  | 167  | 121  | 142  | 152  | 415  | 408  |

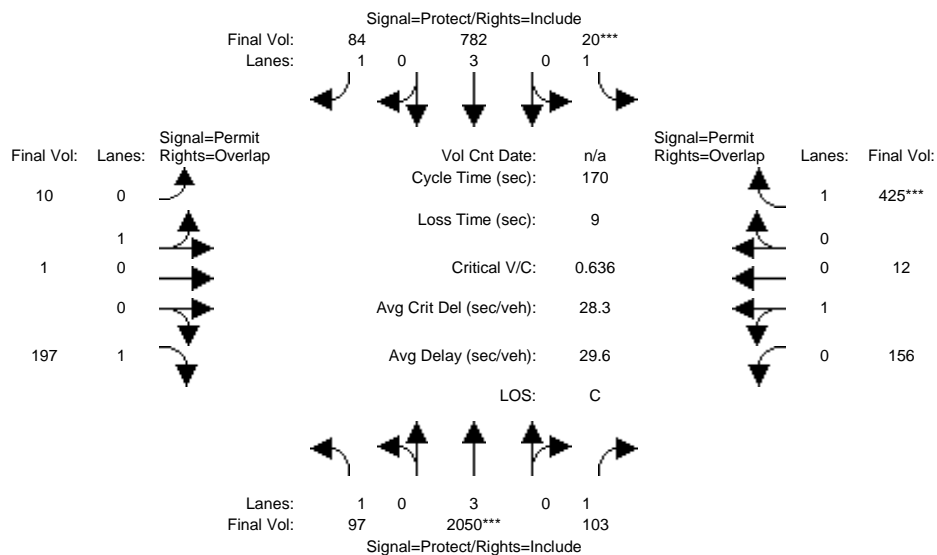
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 |
| Lanes:                  | 2.00 | 2.95 | 0.05 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 3150 | 5508 | 92   | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 1899 | 1800 |

| Capacity Analysis Module: |      |      |      |       |      |      |       |      |      |      |      |      |
|---------------------------|------|------|------|-------|------|------|-------|------|------|------|------|------|
| Vol/Sat:                  | 0.26 | 0.51 | 0.51 | 0.05  | 0.11 | 0.36 | 0.05  | 0.06 | 0.08 | 0.09 | 0.22 | 0.23 |
| Crit Moves:               | ***  |      |      |       |      | **** | ****  |      |      |      |      | **** |
| Green Time:               | 48.5 | 96.3 | 96.3 | 9.4   | 57.3 | 67.2 | 9.9   | 22.1 | 70.6 | 30.2 | 42.4 | 42.4 |
| Volume/Cap:               | 0.91 | 0.90 | 0.90 | 0.90  | 0.32 | 0.91 | 0.91  | 0.49 | 0.20 | 0.49 | 0.88 | 0.91 |
| Uniform Del:              | 58.7 | 32.7 | 32.7 | 79.8  | 41.9 | 48.6 | 79.6  | 68.7 | 31.6 | 63.0 | 61.3 | 62.0 |
| IncrcmntDel:              | 13.1 | 4.1  | 4.1  | 41.6  | 0.1  | 16.1 | 41.7  | 1.5  | 0.1  | 1.2  | 9.4  | 13.0 |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 71.7 | 36.8 | 36.8 | 121.4 | 42.0 | 64.6 | 121.3 | 70.2 | 31.8 | 64.2 | 70.7 | 75.0 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 71.7 | 36.8 | 36.8 | 121.4 | 42.0 | 64.6 | 121.3 | 70.2 | 31.8 | 64.2 | 70.7 | 75.0 |
| LOS by Move:              | E    | D+   | D+   | F     | D    | E    | F     | E    | C    | E    | E    | E    |
| HCM2kAvgQ:                | 24   | 42   | 42   | 6     | 8    | 36   | 8     | 6    | 5    | 8    | 23   | 25   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 97          | 2050 | 103  | 20          | 782  | 84   | 10         | 1    | 197  | 156        | 12   | 425  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 97          | 2050 | 103  | 20          | 782  | 84   | 10         | 1    | 197  | 156        | 12   | 425  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 97          | 2050 | 103  | 20          | 782  | 84   | 10         | 1    | 197  | 156        | 12   | 425  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 97          | 2050 | 103  | 20          | 782  | 84   | 10         | 1    | 197  | 156        | 12   | 425  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 97          | 2050 | 103  | 20          | 782  | 84   | 10         | 1    | 197  | 156        | 12   | 425  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 97          | 2050 | 103  | 20          | 782  | 84   | 10         | 1    | 197  | 156        | 12   | 425  |

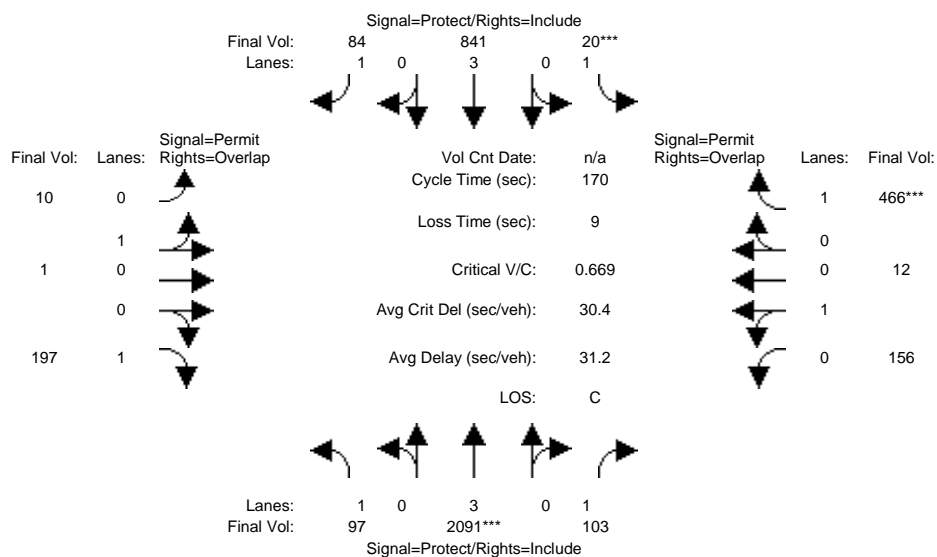
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.95       | 0.95 | 0.92 | 0.95       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 0.91       | 0.09 | 1.00 | 0.93       | 0.07 | 1.00 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 1636       | 164  | 1750 | 1671       | 129  | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.06        | 0.36 | 0.06 | 0.01        | 0.14 | 0.05 | 0.01       | 0.01 | 0.11 | 0.09       | 0.09 | 0.24 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 30.4        | 98.7 | 98.7 | 7.0         | 75.3 | 75.3 | 55.3       | 55.3 | 85.7 | 55.3       | 55.3 | 62.3 |
| Volume/Cap:               | 0.31        | 0.62 | 0.10 | 0.28        | 0.31 | 0.11 | 0.02       | 0.02 | 0.22 | 0.29       | 0.29 | 0.66 |
| Uniform Del:              | 60.7        | 23.4 | 15.9 | 79.0        | 30.6 | 27.7 | 38.9       | 38.9 | 23.5 | 42.7       | 42.7 | 45.0 |
| IncrcmntDel:              | 0.6         | 0.4  | 0.0  | 2.1         | 0.1  | 0.1  | 0.0        | 0.0  | 0.1  | 0.3        | 0.3  | 2.6  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 61.2        | 23.7 | 15.9 | 81.1        | 30.7 | 27.8 | 38.9       | 38.9 | 23.7 | 42.9       | 42.9 | 47.6 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 61.2        | 23.7 | 15.9 | 81.1        | 30.7 | 27.8 | 38.9       | 38.9 | 23.7 | 42.9       | 42.9 | 47.6 |
| LOS by Move:              | E           | C    | B    | F           | C    | C    | D+         | D+   | C    | D          | D    | D    |
| HCM2kAvgQ:                | 5           | 23   | 2    | 1           | 8    | 3    | 0          | 0    | 6    | 7          | 7    | 20   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 97          | 2050 | 103  | 20          | 782  | 84   | 10         | 1    | 197  | 156        | 12   | 425  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 97          | 2050 | 103  | 20          | 782  | 84   | 10         | 1    | 197  | 156        | 12   | 425  |
| Added Vol:     | 0           | 41   | 0    | 0           | 59   | 0    | 0          | 0    | 0    | 0          | 0    | 41   |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 97          | 2091 | 103  | 20          | 841  | 84   | 10         | 1    | 197  | 156        | 12   | 466  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 97          | 2091 | 103  | 20          | 841  | 84   | 10         | 1    | 197  | 156        | 12   | 466  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 97          | 2091 | 103  | 20          | 841  | 84   | 10         | 1    | 197  | 156        | 12   | 466  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 97          | 2091 | 103  | 20          | 841  | 84   | 10         | 1    | 197  | 156        | 12   | 466  |

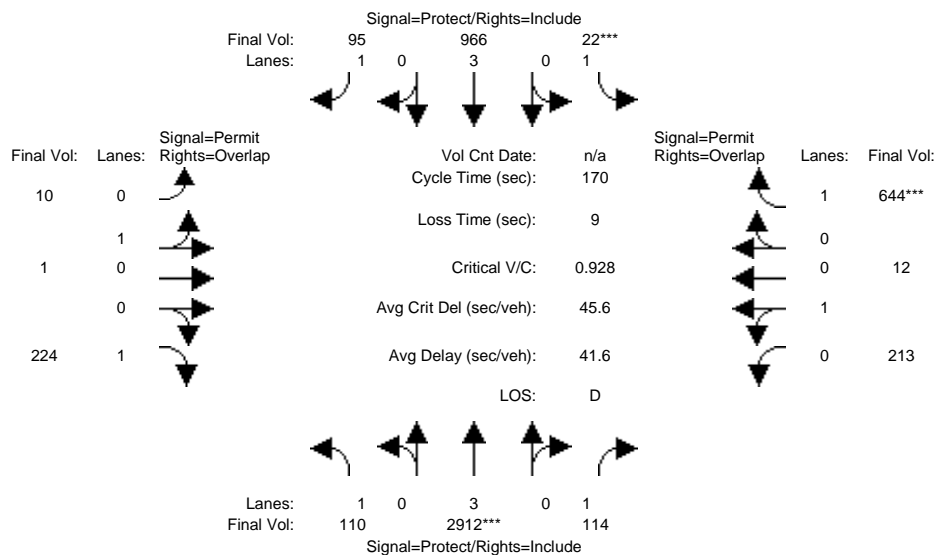
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.95       | 0.95 | 0.92 | 0.95       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 0.91       | 0.09 | 1.00 | 0.93       | 0.07 | 1.00 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 1636       | 164  | 1750 | 1671       | 129  | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.06        | 0.37 | 0.06 | 0.01        | 0.15 | 0.05 | 0.01       | 0.01 | 0.11 | 0.09       | 0.09 | 0.27 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 28.0        | 95.4 | 95.4 | 7.0         | 74.5 | 74.5 | 58.6       | 58.6 | 86.5 | 58.6       | 58.6 | 65.6 |
| Volume/Cap:               | 0.34        | 0.65 | 0.10 | 0.28        | 0.34 | 0.11 | 0.02       | 0.02 | 0.22 | 0.27       | 0.27 | 0.69 |
| Uniform Del:              | 62.8        | 25.8 | 17.4 | 79.0        | 31.5 | 28.2 | 36.7       | 36.7 | 23.1 | 40.3       | 40.3 | 43.7 |
| IncrcmntDel:              | 0.7         | 0.5  | 0.0  | 2.1         | 0.1  | 0.1  | 0.0        | 0.0  | 0.1  | 0.2        | 0.2  | 3.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 63.5        | 26.3 | 17.4 | 81.1        | 31.6 | 28.3 | 36.8       | 36.8 | 23.2 | 40.5       | 40.5 | 46.8 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 63.5        | 26.3 | 17.4 | 81.1        | 31.6 | 28.3 | 36.8       | 36.8 | 23.2 | 40.5       | 40.5 | 46.8 |
| LOS by Move:              | E           | C    | B    | F           | C    | C    | D+         | D+   | C    | D          | D    | D    |
| HCM2kAvgQ:                | 5           | 24   | 3    | 1           | 9    | 3    | 0          | 0    | 6    | 6          | 6    | 22   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 110         | 2912 | 114  | 22          | 966  | 95   | 10         | 1    | 224  | 213        | 12   | 644  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 110         | 2912 | 114  | 22          | 966  | 95   | 10         | 1    | 224  | 213        | 12   | 644  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 110         | 2912 | 114  | 22          | 966  | 95   | 10         | 1    | 224  | 213        | 12   | 644  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 110         | 2912 | 114  | 22          | 966  | 95   | 10         | 1    | 224  | 213        | 12   | 644  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 110         | 2912 | 114  | 22          | 966  | 95   | 10         | 1    | 224  | 213        | 12   | 644  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 110         | 2912 | 114  | 22          | 966  | 95   | 10         | 1    | 224  | 213        | 12   | 644  |

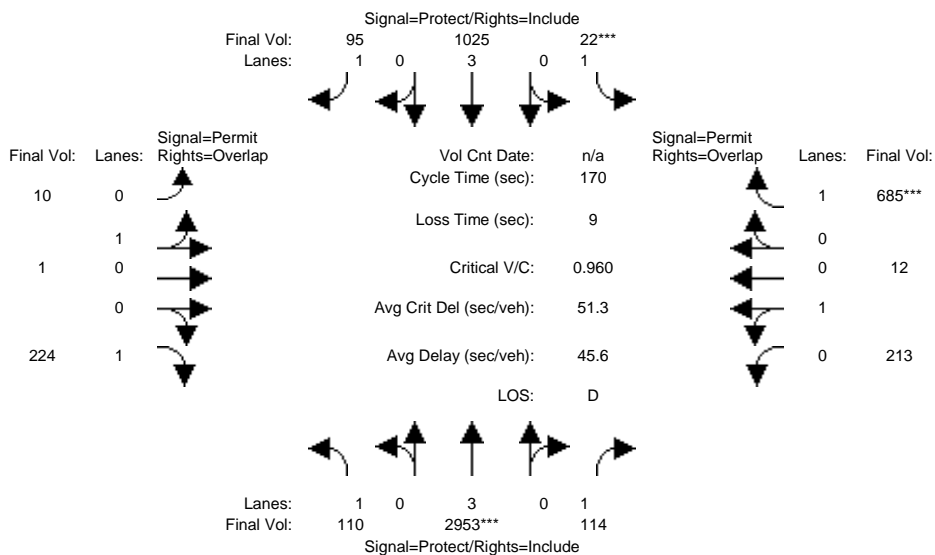
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.95       | 0.95 | 0.92 | 0.95       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 0.91       | 0.09 | 1.00 | 0.95       | 0.05 | 1.00 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 1636       | 164  | 1750 | 1704       | 96   | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.06        | 0.51 | 0.07 | 0.01        | 0.17 | 0.05 | 0.01       | 0.01 | 0.13 | 0.13       | 0.13 | 0.37 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 27.3        | 93.9 | 93.9 | 7.0         | 73.6 | 73.6 | 60.1       | 60.1 | 87.4 | 60.1       | 60.1 | 67.1 |
| Volume/Cap:               | 0.39        | 0.92 | 0.12 | 0.31        | 0.39 | 0.13 | 0.02       | 0.02 | 0.25 | 0.35       | 0.35 | 0.93 |
| Uniform Del:              | 63.9        | 34.8 | 18.2 | 79.1        | 32.9 | 28.9 | 35.8       | 35.8 | 23.0 | 40.6       | 40.6 | 49.3 |
| IncrcmntDel:              | 0.9         | 5.3  | 0.1  | 2.4         | 0.1  | 0.1  | 0.0        | 0.0  | 0.1  | 0.3        | 0.3  | 19.6 |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 64.8        | 40.1 | 18.3 | 81.5        | 33.0 | 29.0 | 35.8       | 35.8 | 23.2 | 41.0       | 41.0 | 68.9 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 64.8        | 40.1 | 18.3 | 81.5        | 33.0 | 29.0 | 35.8       | 35.8 | 23.2 | 41.0       | 41.0 | 68.9 |
| LOS by Move:              | E           | D    | B-   | F           | C-   | C    | D+         | D+   | C    | D          | D    | E    |
| HCM2kAvgQ:                | 5           | 47   | 3    | 1           | 11   | 3    | 0          | 0    | 7    | 9          | 9    | 38   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 110         | 2912 | 114  | 22          | 966  | 95   | 10         | 1    | 224  | 213        | 12   | 644  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 110         | 2912 | 114  | 22          | 966  | 95   | 10         | 1    | 224  | 213        | 12   | 644  |
| Added Vol:     | 0           | 41   | 0    | 0           | 59   | 0    | 0          | 0    | 0    | 0          | 0    | 41   |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 110         | 2953 | 114  | 22          | 1025 | 95   | 10         | 1    | 224  | 213        | 12   | 685  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 110         | 2953 | 114  | 22          | 1025 | 95   | 10         | 1    | 224  | 213        | 12   | 685  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 110         | 2953 | 114  | 22          | 1025 | 95   | 10         | 1    | 224  | 213        | 12   | 685  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 110         | 2953 | 114  | 22          | 1025 | 95   | 10         | 1    | 224  | 213        | 12   | 685  |

| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.95       | 0.95 | 0.92 | 0.95       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 0.91       | 0.09 | 1.00 | 0.95       | 0.05 | 1.00 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 1636       | 164  | 1750 | 1704       | 96   | 1750 |

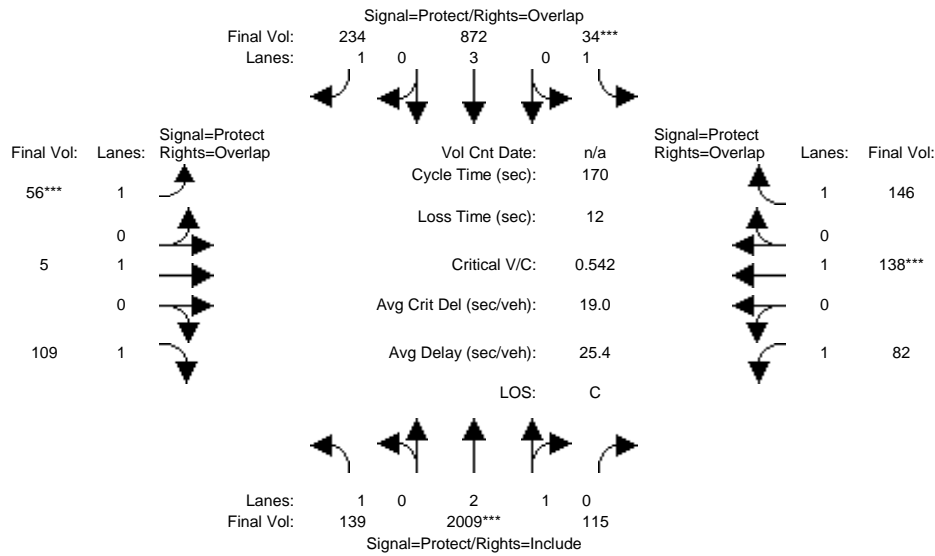
| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.06        | 0.52 | 0.07 | 0.01        | 0.18 | 0.05 | 0.01       | 0.01 | 0.13 | 0.13       | 0.13 | 0.39 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 25.6        | 91.9 | 91.9 | 7.0         | 73.3 | 73.3 | 62.1       | 62.1 | 87.7 | 62.1       | 62.1 | 69.1 |
| Volume/Cap:               | 0.42        | 0.96 | 0.12 | 0.31        | 0.42 | 0.13 | 0.02       | 0.02 | 0.25 | 0.34       | 0.34 | 0.96 |
| Uniform Del:              | 65.4        | 37.2 | 19.2 | 79.1        | 33.6 | 29.1 | 34.4       | 34.4 | 22.8 | 39.1       | 39.1 | 49.2 |
| IncrcmntDel:              | 1.1         | 8.6  | 0.1  | 2.4         | 0.1  | 0.1  | 0.0        | 0.0  | 0.1  | 0.3        | 0.3  | 24.8 |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 66.5        | 45.9 | 19.3 | 81.5        | 33.7 | 29.2 | 34.5       | 34.5 | 23.0 | 39.4       | 39.4 | 74.0 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 66.5        | 45.9 | 19.3 | 81.5        | 33.7 | 29.2 | 34.5       | 34.5 | 23.0 | 39.4       | 39.4 | 74.0 |
| LOS by Move:              | E           | D    | B-   | F           | C-   | C    | C-         | C-   | C+   | D          | D    | E    |
| HCM2kAvgQ:                | 5           | 50   | 3    | 1           | 12   | 3    | 0          | 0    | 7    | 9          | 9    | 42   |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 139         | 2009 | 115  | 34          | 872  | 234  | 56         | 5    | 109  | 82         | 138  | 146  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 139         | 2009 | 115  | 34          | 872  | 234  | 56         | 5    | 109  | 82         | 138  | 146  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 139         | 2009 | 115  | 34          | 872  | 234  | 56         | 5    | 109  | 82         | 138  | 146  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 139         | 2009 | 115  | 34          | 872  | 234  | 56         | 5    | 109  | 82         | 138  | 146  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 139         | 2009 | 115  | 34          | 872  | 234  | 56         | 5    | 109  | 82         | 138  | 146  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 139         | 2009 | 115  | 34          | 872  | 234  | 56         | 5    | 109  | 82         | 138  | 146  |

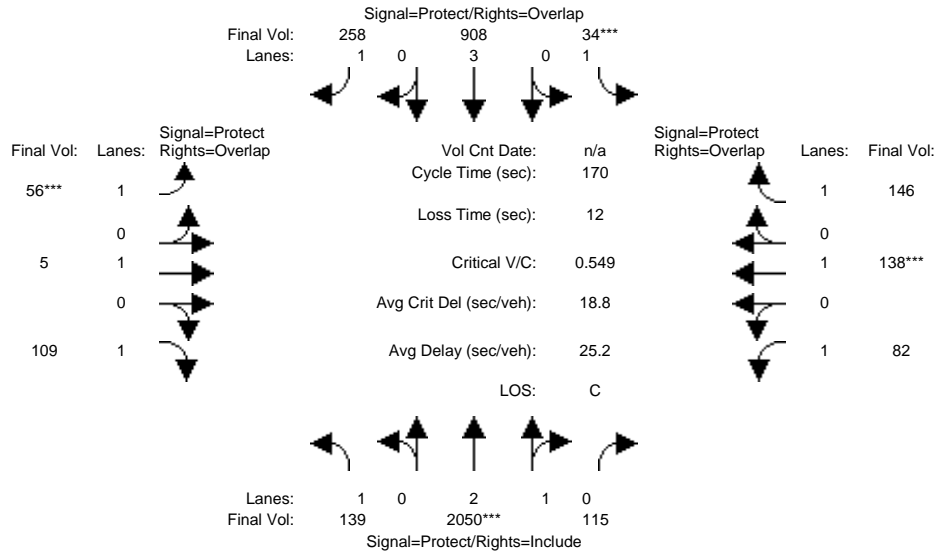
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 0.98 | 0.95 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 2.83 | 0.17 | 1.00        | 3.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Sat.:             | 1750        | 5296 | 303  | 1750        | 5700 | 1750 | 1750       | 1900 | 1750 | 1750       | 1900 | 1750 |

| Capacity Analysis Module: | North Bound |      |       | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|-------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.08        | 0.38 | 0.38  | 0.02        | 0.15 | 0.13 | 0.03       | 0.00 | 0.06 | 0.05       | 0.07 | 0.08 |
| Crit Moves:               | ****        |      |       | ****        |      |      | ****       |      |      | ****       |      |      |
| Green Time:               | 42.8        | 118  | 118.4 | 7.0         | 82.5 | 92.5 | 10.0       | 18.2 | 61.0 | 14.5       | 22.7 | 29.7 |
| Volume/Cap:               | 0.32        | 0.54 | 0.54  | 0.47        | 0.32 | 0.25 | 0.54       | 0.02 | 0.17 | 0.55       | 0.54 | 0.48 |
| Uniform Del:              | 51.7        | 12.6 | 12.6  | 79.7        | 26.6 | 20.4 | 77.8       | 68.0 | 37.3 | 74.6       | 68.8 | 63.2 |
| IncrcmntDel:              | 0.4         | 0.2  | 0.2   | 4.8         | 0.1  | 0.1  | 5.9        | 0.0  | 0.1  | 4.3        | 2.5  | 1.2  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 52.1        | 12.8 | 12.8  | 84.5        | 26.6 | 20.5 | 83.7       | 68.0 | 37.4 | 79.0       | 71.3 | 64.4 |
| User DelAdj:              | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 52.1        | 12.8 | 12.8  | 84.5        | 26.6 | 20.5 | 83.7       | 68.0 | 37.4 | 79.0       | 71.3 | 64.4 |
| LOS by Move:              | D-          | B    | B     | F           | C    | C+   | F          | E    | D+   | E-         | E    | E    |
| HCM2kAvgQ:                | 6           | 18   | 18    | 2           | 9    | 7    | 4          | 0    | 4    | 5          | 7    | 8    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 139         | 2009 | 115  | 34          | 872  | 234  | 56         | 5    | 109  | 82         | 138  | 146  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 139         | 2009 | 115  | 34          | 872  | 234  | 56         | 5    | 109  | 82         | 138  | 146  |
| Added Vol:     | 0           | 41   | 0    | 0           | 36   | 24   | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 139         | 2050 | 115  | 34          | 908  | 258  | 56         | 5    | 109  | 82         | 138  | 146  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 139         | 2050 | 115  | 34          | 908  | 258  | 56         | 5    | 109  | 82         | 138  | 146  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 139         | 2050 | 115  | 34          | 908  | 258  | 56         | 5    | 109  | 82         | 138  | 146  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 139         | 2050 | 115  | 34          | 908  | 258  | 56         | 5    | 109  | 82         | 138  | 146  |

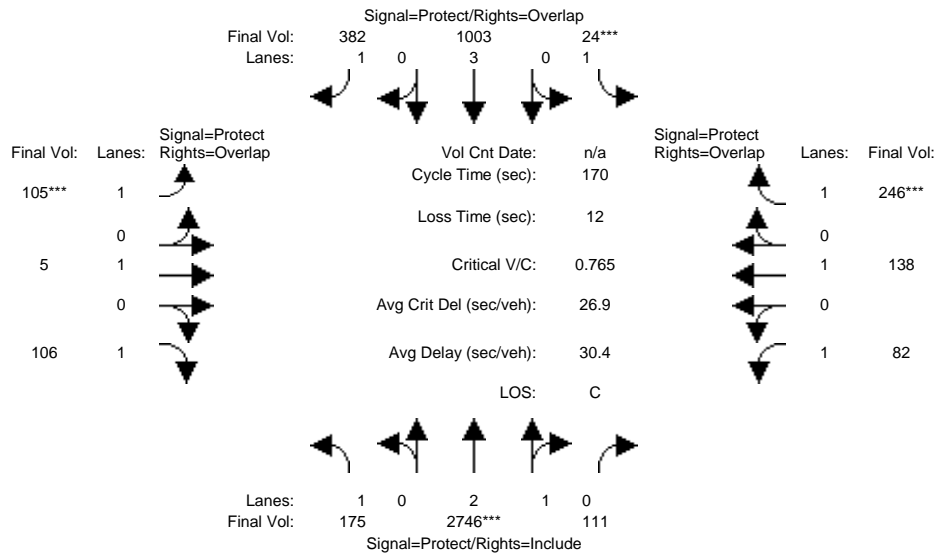
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 0.98 | 0.95 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 2.83 | 0.17 | 1.00        | 3.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Sat.:             | 1750        | 5302 | 297  | 1750        | 5700 | 1750 | 1750       | 1900 | 1750 | 1750       | 1900 | 1750 |

| Capacity Analysis Module: | North Bound |      |       | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|-------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.08        | 0.39 | 0.39  | 0.02        | 0.16 | 0.15 | 0.03       | 0.00 | 0.06 | 0.05       | 0.07 | 0.08 |
| Crit Moves:               | ****        |      |       | ****        |      |      | ****       |      |      | ****       |      |      |
| Green Time:               | 41.9        | 119  | 118.8 | 7.0         | 84.0 | 93.8 | 9.8        | 17.9 | 59.8 | 14.3       | 22.3 | 29.3 |
| Volume/Cap:               | 0.32        | 0.55 | 0.55  | 0.47        | 0.32 | 0.27 | 0.55       | 0.02 | 0.18 | 0.56       | 0.55 | 0.48 |
| Uniform Del:              | 52.5        | 12.6 | 12.6  | 79.7        | 25.9 | 20.0 | 77.9       | 68.2 | 38.1 | 74.8       | 69.2 | 63.5 |
| IncrcmntDel:              | 0.4         | 0.2  | 0.2   | 4.8         | 0.1  | 0.1  | 6.5        | 0.1  | 0.1  | 4.8        | 2.7  | 1.2  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 52.9        | 12.7 | 12.7  | 84.5        | 26.0 | 20.2 | 84.4       | 68.3 | 38.2 | 79.6       | 71.9 | 64.7 |
| User DelAdj:              | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 52.9        | 12.7 | 12.7  | 84.5        | 26.0 | 20.2 | 84.4       | 68.3 | 38.2 | 79.6       | 71.9 | 64.7 |
| LOS by Move:              | D-          | B    | B     | F           | C    | C+   | F          | E    | D+   | E-         | E    | E    |
| HCM2kAvgQ:                | 6           | 18   | 18    | 2           | 9    | 7    | 4          | 0    | 4    | 5          | 7    | 8    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 175         | 2746 | 111  | 24          | 1003 | 382  | 105        | 5    | 106  | 82         | 138  | 246  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 175         | 2746 | 111  | 24          | 1003 | 382  | 105        | 5    | 106  | 82         | 138  | 246  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 175         | 2746 | 111  | 24          | 1003 | 382  | 105        | 5    | 106  | 82         | 138  | 246  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 175         | 2746 | 111  | 24          | 1003 | 382  | 105        | 5    | 106  | 82         | 138  | 246  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 175         | 2746 | 111  | 24          | 1003 | 382  | 105        | 5    | 106  | 82         | 138  | 246  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 175         | 2746 | 111  | 24          | 1003 | 382  | 105        | 5    | 106  | 82         | 138  | 246  |

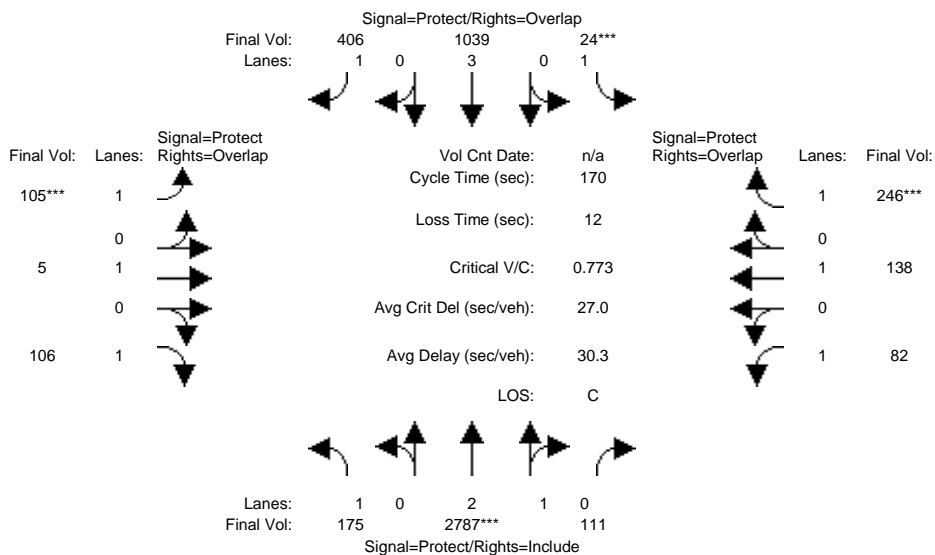
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 0.98 | 0.95 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 2.88 | 0.12 | 1.00        | 3.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Sat.:             | 1750        | 5382 | 218  | 1750        | 5700 | 1750 | 1750       | 1900 | 1750 | 1750       | 1900 | 1750 |

| Capacity Analysis Module: | North Bound |      |       | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|-------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.10        | 0.51 | 0.51  | 0.01        | 0.18 | 0.22 | 0.06       | 0.00 | 0.06 | 0.05       | 0.07 | 0.14 |
| Crit Moves:               | ****        |      |       | ****        |      |      | ****       |      |      | ****       |      |      |
| Green Time:               | 44.2        | 115  | 115.1 | 7.0         | 77.8 | 91.4 | 13.5       | 20.0 | 64.2 | 15.9       | 22.4 | 29.4 |
| Volume/Cap:               | 0.38        | 0.75 | 0.75  | 0.33        | 0.38 | 0.41 | 0.75       | 0.02 | 0.16 | 0.50       | 0.55 | 0.81 |
| Uniform Del:              | 51.7        | 18.1 | 18.1  | 79.2        | 30.3 | 23.3 | 76.6       | 66.3 | 35.0 | 73.2       | 69.1 | 67.6 |
| IncrcmntDel:              | 0.5         | 0.9  | 0.9   | 2.7         | 0.1  | 0.3  | 20.5       | 0.0  | 0.1  | 2.4        | 2.6  | 15.3 |
| InitQueueDel:             | 0.0         | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 52.2        | 19.0 | 19.0  | 82.0        | 30.4 | 23.6 | 97.2       | 66.4 | 35.1 | 75.6       | 71.7 | 82.9 |
| User DelAdj:              | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 52.2        | 19.0 | 19.0  | 82.0        | 30.4 | 23.6 | 97.2       | 66.4 | 35.1 | 75.6       | 71.7 | 82.9 |
| LOS by Move:              | D-          | B-   | B-    | F           | C    | C    | F          | E    | D+   | E-         | E    | F    |
| HCM2kAvgQ:                | 8           | 33   | 33    | 1           | 11   | 12   | 7          | 0    | 4    | 5          | 7    | 15   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 175         | 2746 | 111  | 24          | 1003 | 382  | 105        | 5    | 106  | 82         | 138  | 246  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 175         | 2746 | 111  | 24          | 1003 | 382  | 105        | 5    | 106  | 82         | 138  | 246  |
| Added Vol:     | 0           | 41   | 0    | 0           | 36   | 24   | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 175         | 2787 | 111  | 24          | 1039 | 406  | 105        | 5    | 106  | 82         | 138  | 246  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 175         | 2787 | 111  | 24          | 1039 | 406  | 105        | 5    | 106  | 82         | 138  | 246  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 175         | 2787 | 111  | 24          | 1039 | 406  | 105        | 5    | 106  | 82         | 138  | 246  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 175         | 2787 | 111  | 24          | 1039 | 406  | 105        | 5    | 106  | 82         | 138  | 246  |

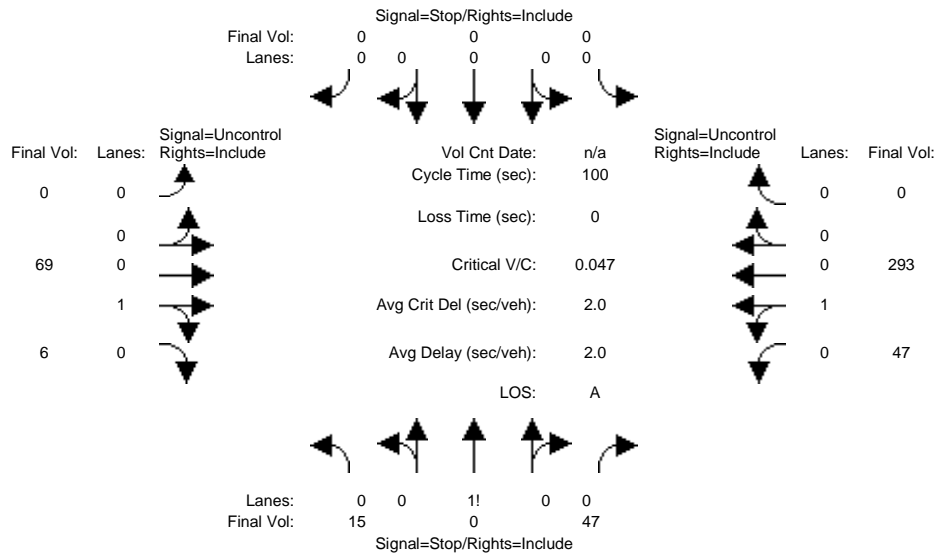
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 0.98 | 0.95 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 2.88 | 0.12 | 1.00        | 3.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Sat.:             | 1750        | 5385 | 214  | 1750        | 5700 | 1750 | 1750       | 1900 | 1750 | 1750       | 1900 | 1750 |

| Capacity Analysis Module: | North Bound |      |       | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|-------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.10        | 0.52 | 0.52  | 0.01        | 0.18 | 0.23 | 0.06       | 0.00 | 0.06 | 0.05       | 0.07 | 0.14 |
| Crit Moves:               | ****        |      |       | ****        |      |      | ****       |      |      | ****       |      |      |
| Green Time:               | 43.4        | 115  | 115.4 | 7.0         | 79.1 | 92.5 | 13.4       | 19.8 | 63.2 | 15.8       | 22.2 | 29.2 |
| Volume/Cap:               | 0.39        | 0.76 | 0.76  | 0.33        | 0.39 | 0.43 | 0.76       | 0.02 | 0.16 | 0.51       | 0.56 | 0.82 |
| Uniform Del:              | 52.4        | 18.1 | 18.1  | 79.2        | 29.7 | 23.0 | 76.7       | 66.5 | 35.7 | 73.4       | 69.3 | 67.9 |
| IncrcmntDel:              | 0.6         | 0.9  | 0.9   | 2.7         | 0.1  | 0.3  | 21.8       | 0.0  | 0.1  | 2.6        | 2.8  | 16.1 |
| InitQueueDel:             | 0.0         | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 53.0        | 19.1 | 19.1  | 82.0        | 29.8 | 23.3 | 98.5       | 66.6 | 35.9 | 76.0       | 72.1 | 84.0 |
| User DelAdj:              | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 53.0        | 19.1 | 19.1  | 82.0        | 29.8 | 23.3 | 98.5       | 66.6 | 35.9 | 76.0       | 72.1 | 84.0 |
| LOS by Move:              | D-          | B-   | B-    | F           | C    | C    | F          | E    | D+   | E-         | E    | F    |
| HCM2kAvgQ:                | 8           | 34   | 34    | 1           | 11   | 13   | 7          | 0    | 4    | 5          | 7    | 15   |

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

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 13 rows representing volume modules: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 13 columns representing movements and 2 rows representing critical gap modules: Critical Gap, FollowUpTim.

Table with 13 columns representing movements and 4 rows representing capacity modules: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 13 columns representing movements and 7 rows representing level of service modules: 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 15 0 47     | 0 0 0 0     | 0 69 6       | 47 293 0     |
| ApproachDel: | 9.7         | xxxxxx      | 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=62]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=3][total volume=477]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #9 San Aleso Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 15 0 47     | 0 0 0 0     | 0 69 6       | 47 293 0     |

Major Street Volume: 415  
 Minor Approach Volume: 62  
 Minor Approach Volume Threshold: 454

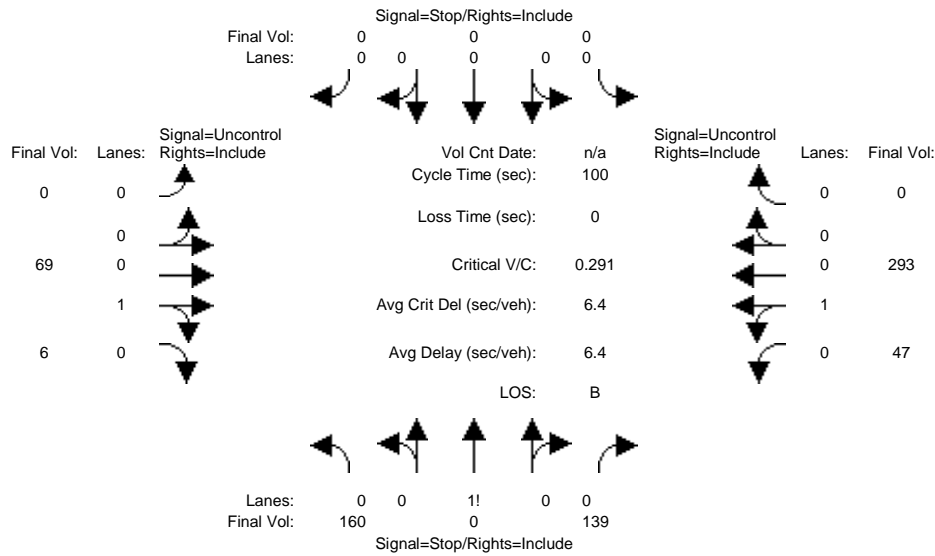
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P AM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for different movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 13 columns representing critical gap modules. Rows include Critical Gp and FollowUpTim.

Table with 13 columns representing capacity modules. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 160 0 139   | 0 0 0 0     | 0 69 6       | 47 293 0     |
| ApproachDel: | 14.0        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][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=299]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=714]
    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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #9 San Aleso Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 160 0 139   | 0 0 0 0     | 0 69 6       | 47 293 0     |

```

Major Street Volume:          415
Minor Approach Volume:        299
Minor Approach Volume Threshold: 454
    
```

-----  
SIGNAL WARRANT DISCLAIMER

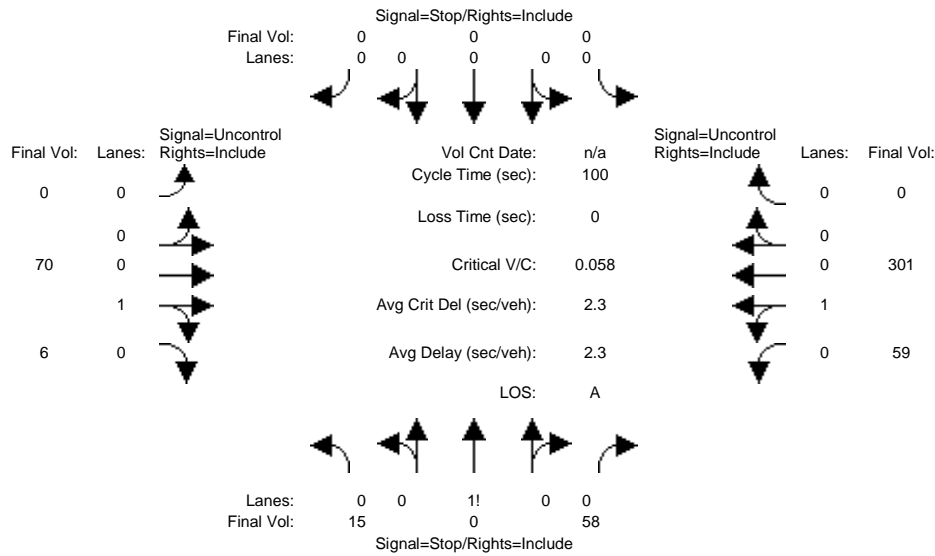
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume) and rows for each approach (North, South, East, West).

Table for Critical Gap Module showing Critical Gp and FollowUpTim values for each approach.

Table for Capacity Module showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for each approach.

Table for Level Of Service Module showing 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 15 0 58     | 0 0 0 0     | 0 70 6       | 59 301 0     |
| ApproachDel: | 9.7         | xxxxxx      | 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=73]
    FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=509]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #9 San Aleso Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 15 0 58     | 0 0 0 0     | 0 70 6       | 59 301 0     |

```

Major Street Volume:          436
Minor Approach Volume:       73
Minor Approach Volume Threshold: 441
    
```

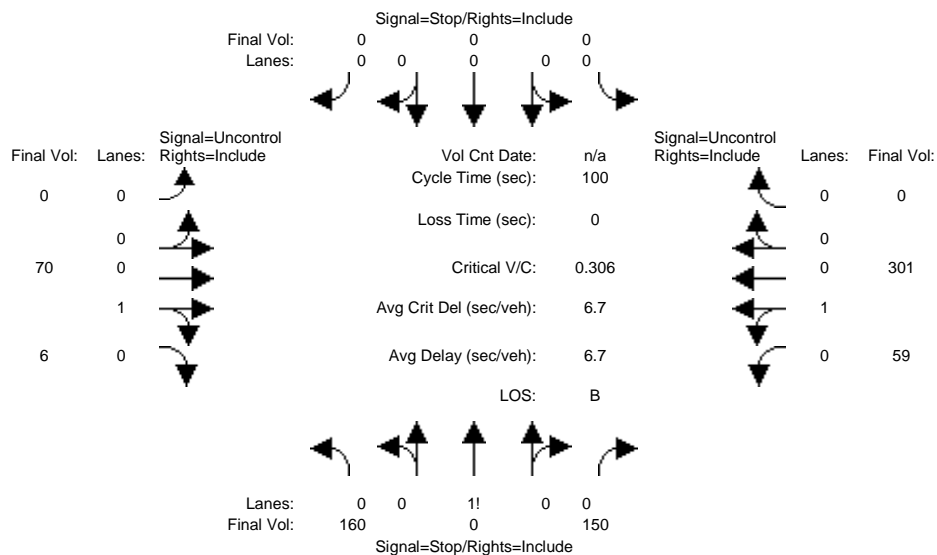
-----  
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P AM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for different movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 13 columns representing critical gap modules. Rows include Critical Gp and FollowUpTim.

Table with 13 columns representing capacity modules. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 160 0 150   | 0 0 0 0     | 0 70 6       | 59 301 0     |
| ApproachDel: | 14.7        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][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=310]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=746]
    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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #9 San Aleso Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 160 0 150   | 0 0 0 0     | 0 70 6       | 59 301 0     |

```

Major Street Volume:          436
Minor Approach Volume:        310
Minor Approach Volume Threshold: 441
    
```

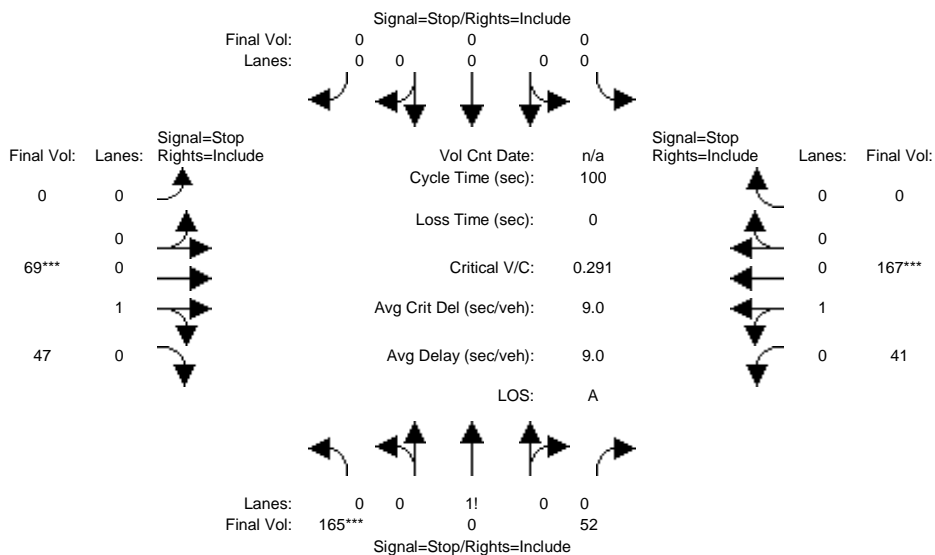
-----  
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing AM

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
| Approach:    | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Movement:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: | Borregas Ave |      |      |      |      |      | Ahwanee Ave |      |      |      |      |      |
|----------------|--------------|------|------|------|------|------|-------------|------|------|------|------|------|
| Base Vol:      | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 69   | 47   | 41   | 167  | 0    |
| Growth Adj:    | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 69   | 47   | 41   | 167  | 0    |
| Added Vol:     | 0            | 0    | 0    | 0    | 0    | 0    | 0           | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0            | 0    | 0    | 0    | 0    | 0    | 0           | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 69   | 47   | 41   | 167  | 0    |
| User Adj:      | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 69   | 47   | 41   | 167  | 0    |
| Reduct Vol:    | 0            | 0    | 0    | 0    | 0    | 0    | 0           | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 69   | 47   | 41   | 167  | 0    |
| PCE Adj:       | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 69   | 47   | 41   | 167  | 0    |

| Saturation Flow Module: | Borregas Ave |      |      |      |      |      | Ahwanee Ave |      |      |      |      |      |
|-------------------------|--------------|------|------|------|------|------|-------------|------|------|------|------|------|
| Adjustment:             | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.76         | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00        | 0.59 | 0.41 | 0.20 | 0.80 | 0.00 |
| Final Sat.:             | 568          | 0    | 179  | 0    | 0    | 0    | 0           | 464  | 316  | 149  | 609  | 0    |

| Capacity Analysis Module: | Borregas Ave |      |      |        |      |      | Ahwanee Ave |      |      |      |      |      |
|---------------------------|--------------|------|------|--------|------|------|-------------|------|------|------|------|------|
| Vol/Sat:                  | 0.29         | xxxx | 0.29 | xxxx   | xxxx | xxxx | xxxx        | 0.15 | 0.15 | 0.27 | 0.27 | xxxx |
| Crit Moves:               | ****         |      |      |        |      |      |             | **** |      |      | **** |      |
| Delay/Veh:                | 9.4          | 0.0  | 9.4  | 0.0    | 0.0  | 0.0  | 0.0         | 8.1  | 8.1  | 9.2  | 9.2  | 0.0  |
| Delay Adj:                | 1.00         | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 9.4          | 0.0  | 9.4  | 0.0    | 0.0  | 0.0  | 0.0         | 8.1  | 8.1  | 9.2  | 9.2  | 0.0  |
| LOS by Move:              | A            | *    | A    | *      | *    | *    | *           | A    | A    | A    | A    | *    |
| ApproachDel:              | 9.4          |      |      | xxxxxx |      |      |             | 8.1  |      |      | 9.2  |      |
| Delay Adj:                | 1.00         |      |      | xxxxxx |      |      |             | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               | 9.4          |      |      | xxxxxx |      |      |             | 8.1  |      |      | 9.2  |      |
| LOS by Appr:              | A            |      |      | *      |      |      |             | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.4          | 0.4  | 0.4  | 0.0    | 0.0  | 0.0  | 0.2         | 0.2  | 0.2  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #10 Borregas Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |   |   |    | South Bound |   |   |   | East Bound |    |    |   | West Bound |     |   |   |   |   |   |   |
|----------------------------------|-------------|---|---|----|-------------|---|---|---|------------|----|----|---|------------|-----|---|---|---|---|---|---|
| Movement:                        | L           | T | R |    | L           | T | R |   | L          | T  | R  |   | L          | T   | R |   |   |   |   |   |
| Control:                         | Stop Sign   |   |   |    | Stop Sign   |   |   |   | Stop Sign  |    |    |   | Stop Sign  |     |   |   |   |   |   |   |
| Lanes:                           | 0           | 0 | 1 | 0  | 0           | 0 | 0 | 0 | 0          | 0  | 0  | 1 | 0          | 0   | 1 | 0 | 0 | 1 | 0 | 0 |
| Initial Vol:                     | 165         |   | 0 | 52 | 0           | 0 | 0 | 0 | 0          | 69 | 47 |   | 41         | 167 |   | 0 |   |   |   |   |
| Major Street Volume:             |             |   |   |    | 324         |   |   |   |            |    |    |   |            |     |   |   |   |   |   |   |
| Minor Approach Volume:           |             |   |   |    | 217         |   |   |   |            |    |    |   |            |     |   |   |   |   |   |   |
| Minor Approach Volume Threshold: |             |   |   |    | 520         |   |   |   |            |    |    |   |            |     |   |   |   |   |   |   |

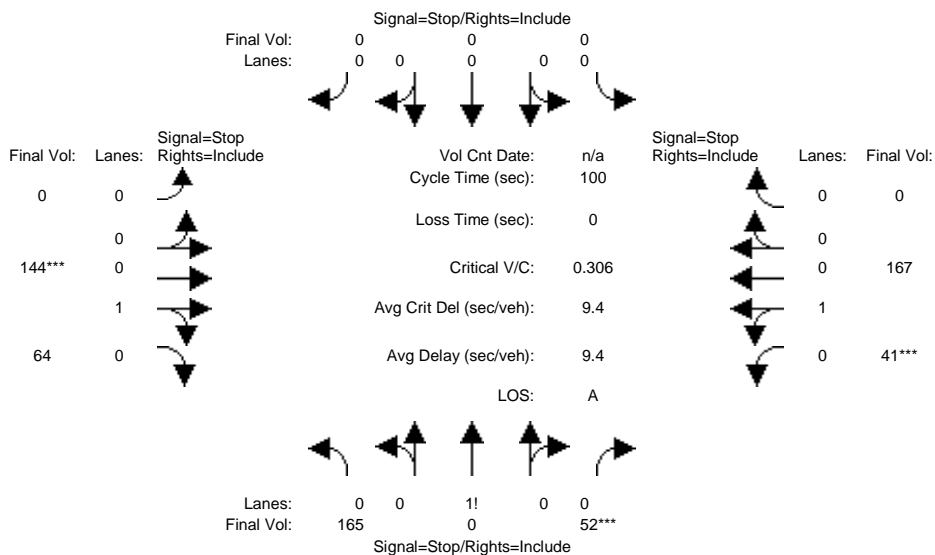
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing+P AM

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
| Approach:    | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Movement:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: | Borregas Ave |      |      |      |      |      | Ahwanee Ave |      |      |      |      |      |
|----------------|--------------|------|------|------|------|------|-------------|------|------|------|------|------|
| Base Vol:      | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 69   | 47   | 41   | 167  | 0    |
| Growth Adj:    | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 69   | 47   | 41   | 167  | 0    |
| Added Vol:     | 0            | 0    | 0    | 0    | 0    | 0    | 0           | 75   | 17   | 0    | 0    | 0    |
| PasserByVol:   | 0            | 0    | 0    | 0    | 0    | 0    | 0           | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 144  | 64   | 41   | 167  | 0    |
| User Adj:      | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 144  | 64   | 41   | 167  | 0    |
| Reduct Vol:    | 0            | 0    | 0    | 0    | 0    | 0    | 0           | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 144  | 64   | 41   | 167  | 0    |
| PCE Adj:       | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 165          | 0    | 52   | 0    | 0    | 0    | 0           | 144  | 64   | 41   | 167  | 0    |

| Saturation Flow Module: | Borregas Ave |      |      |      |      |      | Ahwanee Ave |      |      |      |      |      |
|-------------------------|--------------|------|------|------|------|------|-------------|------|------|------|------|------|
| Adjustment:             | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.76         | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00        | 0.69 | 0.31 | 0.20 | 0.80 | 0.00 |
| Final Sat.:             | 539          | 0    | 170  | 0    | 0    | 0    | 0           | 533  | 237  | 145  | 592  | 0    |

| Capacity Analysis Module: | Borregas Ave |      |      |        |      |      | Ahwanee Ave |      |      |      |      |      |
|---------------------------|--------------|------|------|--------|------|------|-------------|------|------|------|------|------|
| Vol/Sat:                  | 0.31         | xxxx | 0.31 | xxxx   | xxxx | xxxx | xxxx        | 0.27 | 0.27 | 0.28 | 0.28 | xxxx |
| Crit Moves:               |              |      | **** |        |      |      |             | **** |      | **** |      |      |
| Delay/Veh:                | 9.8          | 0.0  | 9.8  | 0.0    | 0.0  | 0.0  | 0.0         | 9.1  | 9.1  | 9.4  | 9.4  | 0.0  |
| Delay Adj:                | 1.00         | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 9.8          | 0.0  | 9.8  | 0.0    | 0.0  | 0.0  | 0.0         | 9.1  | 9.1  | 9.4  | 9.4  | 0.0  |
| LOS by Move:              | A            | *    | A    | *      | *    | *    | *           | A    | A    | A    | A    | *    |
| ApproachDel:              |              | 9.8  |      | xxxxxx |      |      |             | 9.1  |      |      | 9.4  |      |
| Delay Adj:                |              | 1.00 |      | xxxxxx |      |      |             | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               |              | 9.8  |      | xxxxxx |      |      |             | 9.1  |      |      | 9.4  |      |
| LOS by Appr:              |              | A    |      | *      |      |      |             | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.4          | 0.4  | 0.4  | 0.0    | 0.0  | 0.0  | 0.3         | 0.3  | 0.3  | 0.4  | 0.4  | 0.4  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #10 Borregas Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |   |   |    | South Bound |   |   |   | East Bound |     |   |    | West Bound |     |   |   |   |   |   |   |
|----------------------------------|-------------|---|---|----|-------------|---|---|---|------------|-----|---|----|------------|-----|---|---|---|---|---|---|
| Movement:                        | L           | T | R |    | L           | T | R |   | L          | T   | R |    | L          | T   | R |   |   |   |   |   |
| Control:                         | Stop Sign   |   |   |    | Stop Sign   |   |   |   | Stop Sign  |     |   |    | Stop Sign  |     |   |   |   |   |   |   |
| Lanes:                           | 0           | 0 | 1 | 0  | 0           | 0 | 0 | 0 | 0          | 0   | 0 | 1  | 0          | 0   | 1 | 0 | 0 | 1 | 0 | 0 |
| Initial Vol:                     | 165         |   | 0 | 52 | 0           | 0 | 0 | 0 | 0          | 144 |   | 64 | 41         | 167 |   | 0 |   |   |   |   |
| Major Street Volume:             |             |   |   |    | 416         |   |   |   |            |     |   |    |            |     |   |   |   |   |   |   |
| Minor Approach Volume:           |             |   |   |    | 217         |   |   |   |            |     |   |    |            |     |   |   |   |   |   |   |
| Minor Approach Volume Threshold: |             |   |   |    | 453         |   |   |   |            |     |   |    |            |     |   |   |   |   |   |   |

SIGNAL WARRANT DISCLAIMER

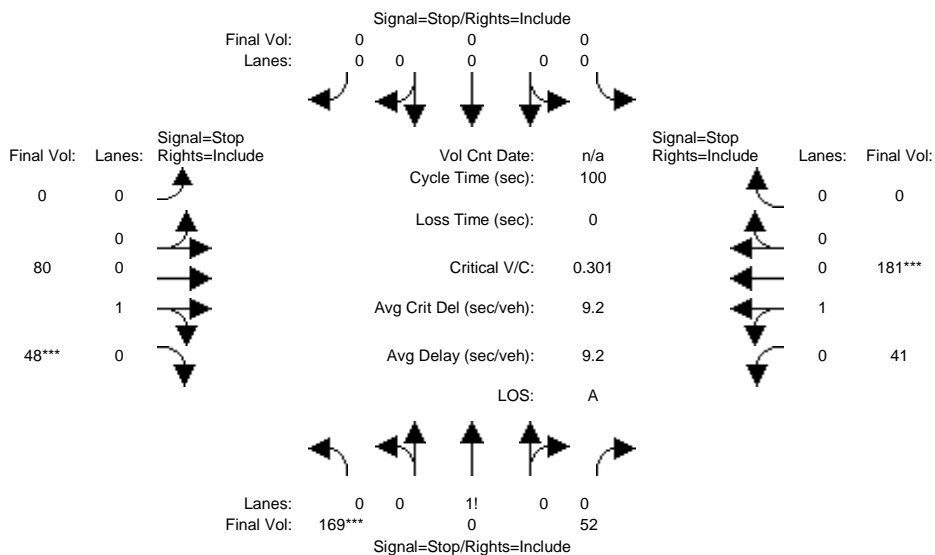
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Bkgd AM

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
| Approach:    | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Movement:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 80   | 48   | 41   | 181  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 80   | 48   | 41   | 181  | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 80   | 48   | 41   | 181  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 80   | 48   | 41   | 181  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 80   | 48   | 41   | 181  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 80   | 48   | 41   | 181  | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.76 | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.62 | 0.38 | 0.18 | 0.82 | 0.00 |
| Final Sat.:             | 562  | 0    | 173  | 0    | 0    | 0    | 0    | 482  | 289  | 139  | 615  | 0    |

| Capacity Analysis Module: |      |      |      |        |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|--------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.30 | xxxx | 0.30 | xxxx   | xxxx | xxxx | xxxx | 0.17 | 0.17 | 0.29 | 0.29 | xxxx |
| Crit Moves:               | **** |      |      |        |      |      |      |      | **** |      | **** |      |
| Delay/Veh:                | 9.5  | 0.0  | 9.5  | 0.0    | 0.0  | 0.0  | 0.0  | 8.3  | 8.3  | 9.4  | 9.4  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 9.5  | 0.0  | 9.5  | 0.0    | 0.0  | 0.0  | 0.0  | 8.3  | 8.3  | 9.4  | 9.4  | 0.0  |
| LOS by Move:              | A    | *    | A    | *      | *    | *    | *    | A    | A    | A    | A    | *    |
| ApproachDel:              |      | 9.5  |      | xxxxxx |      |      |      | 8.3  |      |      | 9.4  |      |
| Delay Adj:                |      | 1.00 |      | xxxxxx |      |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               |      | 9.5  |      | xxxxxx |      |      |      | 8.3  |      |      | 9.4  |      |
| LOS by Appr:              |      | A    |      |        | *    |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.4  | 0.4  | 0.4  | 0.0    | 0.0  | 0.0  | 0.2  | 0.2  | 0.2  | 0.4  | 0.4  | 0.4  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #10 Borregas Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future 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  |    | L          | T   | R |   |   |   |
| Control:                         | Stop Sign   |   |   |    | Stop Sign   |   |   |   | Stop Sign  |   |    |    | Stop Sign  |     |   |   |   |   |
| Lanes:                           | 0           | 0 | 1 | 0  | 0           | 0 | 0 | 0 | 0          | 0 | 0  | 1  | 0          | 0   | 1 | 0 | 0 | 0 |
| Initial Vol:                     | 169         |   | 0 | 52 | 0           | 0 | 0 | 0 | 0          | 0 | 80 | 48 | 41         | 181 |   | 0 |   | 0 |
| Major Street Volume:             |             |   |   |    | 350         |   |   |   |            |   |    |    |            |     |   |   |   |   |
| Minor Approach Volume:           |             |   |   |    | 221         |   |   |   |            |   |    |    |            |     |   |   |   |   |
| Minor Approach Volume Threshold: |             |   |   |    | 499         |   |   |   |            |   |    |    |            |     |   |   |   |   |

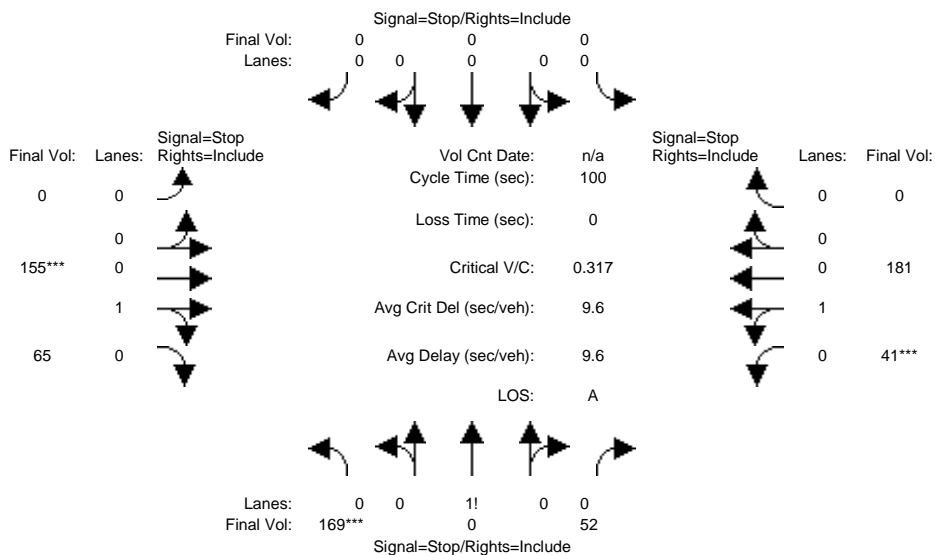
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Bkgd+P AM

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
| Approach:    | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Movement:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 80   | 48   | 41   | 181  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 80   | 48   | 41   | 181  | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 75   | 17   | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 155  | 65   | 41   | 181  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 155  | 65   | 41   | 181  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 155  | 65   | 41   | 181  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 169  | 0    | 52   | 0    | 0    | 0    | 0    | 155  | 65   | 41   | 181  | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.76 | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.70 | 0.30 | 0.18 | 0.82 | 0.00 |
| Final Sat.:             | 534  | 0    | 164  | 0    | 0    | 0    | 0    | 537  | 225  | 135  | 597  | 0    |

| Capacity Analysis Module: |      |      |      |        |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|--------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.32 | xxxx | 0.32 | xxxx   | xxxx | xxxx | xxxx | 0.29 | 0.29 | 0.30 | 0.30 | xxxx |
| Crit Moves:               | **** |      |      |        |      |      |      | **** |      | **** |      |      |
| Delay/Veh:                | 9.9  | 0.0  | 9.9  | 0.0    | 0.0  | 0.0  | 0.0  | 9.3  | 9.3  | 9.7  | 9.7  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 9.9  | 0.0  | 9.9  | 0.0    | 0.0  | 0.0  | 0.0  | 9.3  | 9.3  | 9.7  | 9.7  | 0.0  |
| LOS by Move:              | A    | *    | A    | *      | *    | *    | *    | A    | A    | A    | A    | *    |
| ApproachDel:              |      | 9.9  |      | xxxxxx |      |      |      | 9.3  |      |      | 9.7  |      |
| Delay Adj:                |      | 1.00 |      | xxxxxx |      |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               |      | 9.9  |      | xxxxxx |      |      |      | 9.3  |      |      | 9.7  |      |
| LOS by Appr:              |      | A    |      |        | *    |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.4  | 0.4  | 0.4  | 0.0    | 0.0  | 0.0  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #10 Borregas Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future 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 |   | L          | T | R |   |   |   |
| Control:                         | Stop Sign   |   |   |    | Stop Sign   |   |   |   | Stop Sign  |   |   |   | Stop Sign  |   |   |   |   |   |
| Lanes:                           | 0           | 0 | 1 | 0  | 0           | 0 | 0 | 0 | 0          | 0 | 0 | 1 | 0          | 0 | 1 | 0 | 0 | 0 |
| Initial Vol:                     | 169         |   | 0 | 52 | 0           | 0 | 0 | 0 | 0          | 0 | 0 | 1 | 0          | 0 | 1 | 0 | 0 | 0 |
| Major Street Volume:             |             |   |   |    | 442         |   |   |   |            |   |   |   |            |   |   |   |   |   |
| Minor Approach Volume:           |             |   |   |    | 221         |   |   |   |            |   |   |   |            |   |   |   |   |   |
| Minor Approach Volume Threshold: |             |   |   |    | 437         |   |   |   |            |   |   |   |            |   |   |   |   |   |

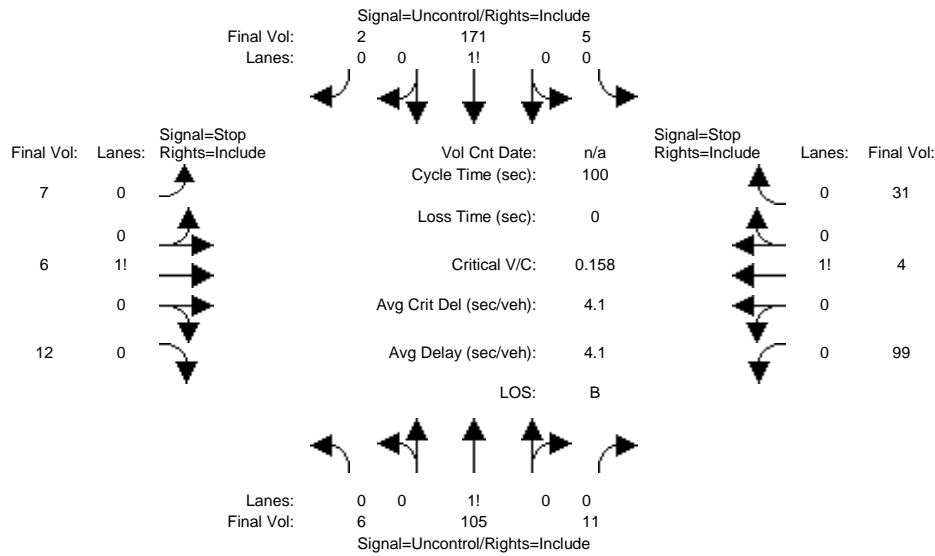
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 11 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Volume, Potent Capacity, Move Capacity, and Volume/Capacity.

Table with 12 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Delay, LOS by Move, Shared Capacity, Shared Queue, Shrd ConDel, Shared LOS, Approach Delay, and Approach LOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 6 105 11     | 5 171 2      | 7 6 12     | 99 4 31    |
| ApproachDel: | xxxxxx       | xxxxxx       | 10.2       | 11.6       |

Approach[eastbound][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=25]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=459]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=134]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=459]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 6 105 11     | 5 171 2      | 7 6 12     | 99 4 31    |

Major Street Volume: 300  
 Minor Approach Volume: 134  
 Minor Approach Volume Threshold: 541

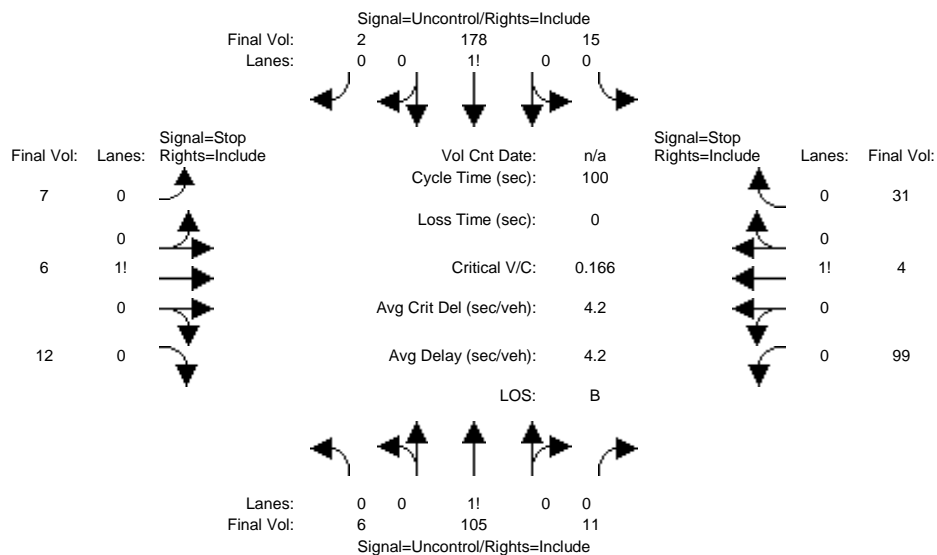
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P AM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 2 rows representing critical gap and follow-up time metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 4 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 6 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 6 105 11     | 15 178 2     | 7 6 12     | 99 4 31    |
| ApproachDel: | xxxxxx       | xxxxxx       | 10.4       | 11.9       |

-----|-----|-----|-----|-----|  
 Approach[eastbound][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=25]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=476]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.  
 -----|-----|-----|-----|-----|

-----|-----|-----|-----|-----|  
 Approach[westbound][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=134]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=476]  
 FAIL - Total volume less than 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).  
 -----|-----|-----|-----|-----|

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  
 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 6 105 11     | 15 178 2     | 7 6 12     | 99 4 31    |

-----|-----|-----|-----|-----|  
 Major Street Volume: 317  
 Minor Approach Volume: 134  
 Minor Approach Volume Threshold: 526  
 -----|-----|-----|-----|-----|

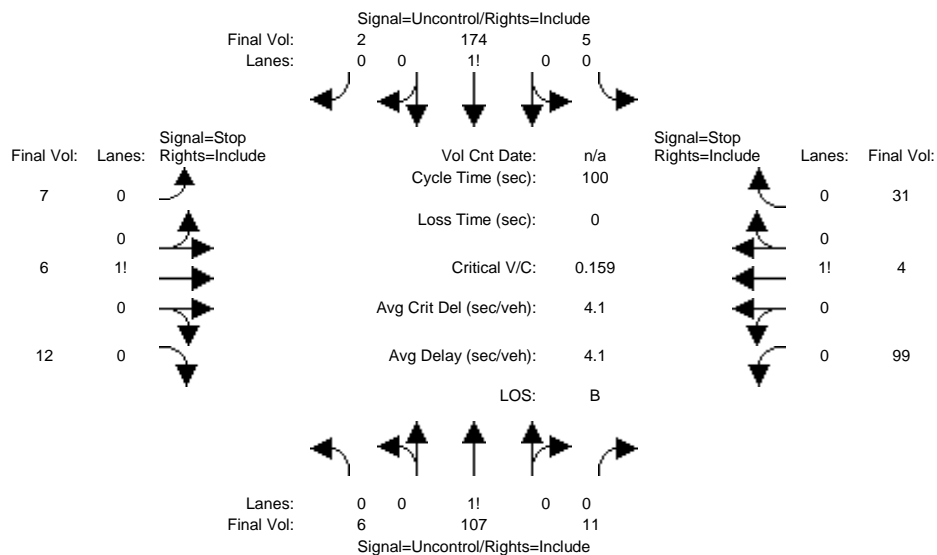
-----|-----|-----|-----|-----|  
 SIGNAL WARRANT DISCLAIMER  
 This peak hour signal warrant analysis should be considered solely as an  
 "indicator" of the likelihood of an unsignalized intersection warranting  
 a traffic signal in the future. Intersections that exceed this warrant  
 are probably more likely to meet one or more of the other volume based  
 signal warrant (such as the 4-hour or 8-hour warrants).  
 -----|-----|-----|-----|-----|

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  
 the scope of this software, may yield different results.



Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 2 rows representing critical gap and follow-up time metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 4 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 10 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 6 107 11     | 5 174 2      | 7 6 12     | 99 4 31    |
| ApproachDel: | xxxxxx       | xxxxxx       | 10.3       | 11.7       |

Approach[eastbound][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=25]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=464]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=134]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=464]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 6 107 11     | 5 174 2      | 7 6 12     | 99 4 31    |

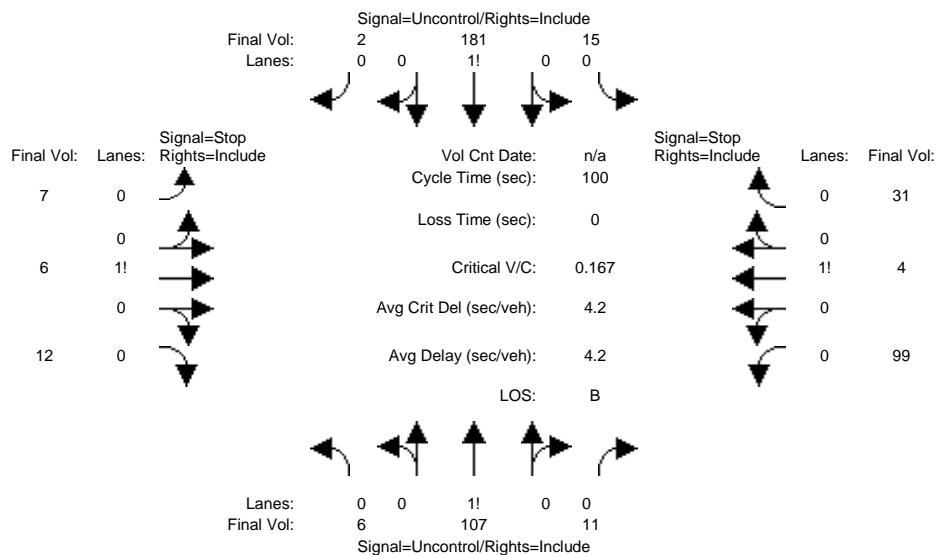
Major Street Volume: 305  
 Minor Approach Volume: 134  
 Minor Approach Volume Threshold: 536

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P AM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 2 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 4 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 6 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 6 107 11     | 15 181 2     | 7 6 12     | 99 4 31    |
| ApproachDel: | xxxxxx       | xxxxxx       | 10.4       | 12.0       |

Approach[eastbound][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=25]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=481]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=134]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=481]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 6 107 11     | 15 181 2     | 7 6 12     | 99 4 31    |

Major Street Volume: 322  
 Minor Approach Volume: 134  
 Minor Approach Volume Threshold: 522

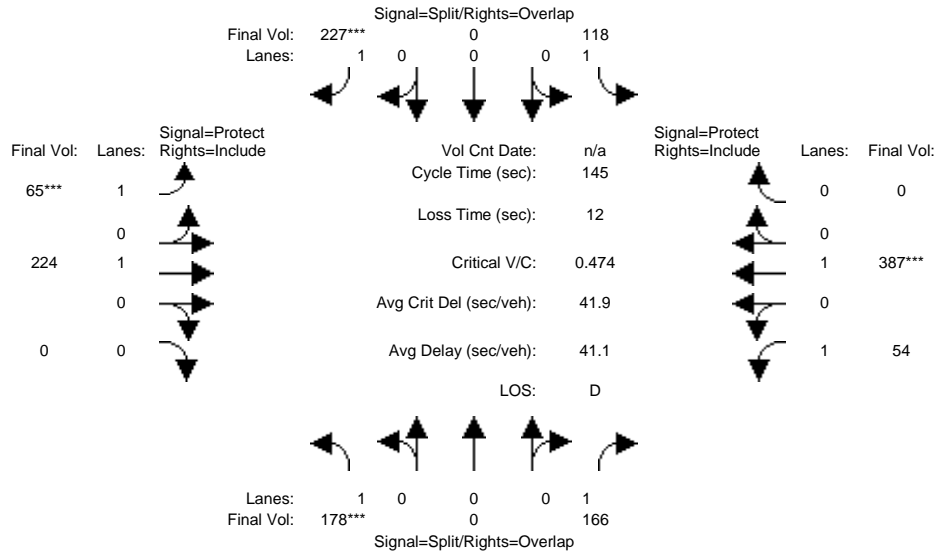
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing AM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 178  | 0    | 166  | 118  | 0    | 227  | 65   | 224  | 0    | 54   | 387  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 178  | 0    | 166  | 118  | 0    | 227  | 65   | 224  | 0    | 54   | 387  | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 178  | 0    | 166  | 118  | 0    | 227  | 65   | 224  | 0    | 54   | 387  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 178  | 0    | 166  | 118  | 0    | 227  | 65   | 224  | 0    | 54   | 387  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 178  | 0    | 166  | 118  | 0    | 227  | 65   | 224  | 0    | 54   | 387  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 178  | 0    | 166  | 118  | 0    | 227  | 65   | 224  | 0    | 54   | 387  | 0    |

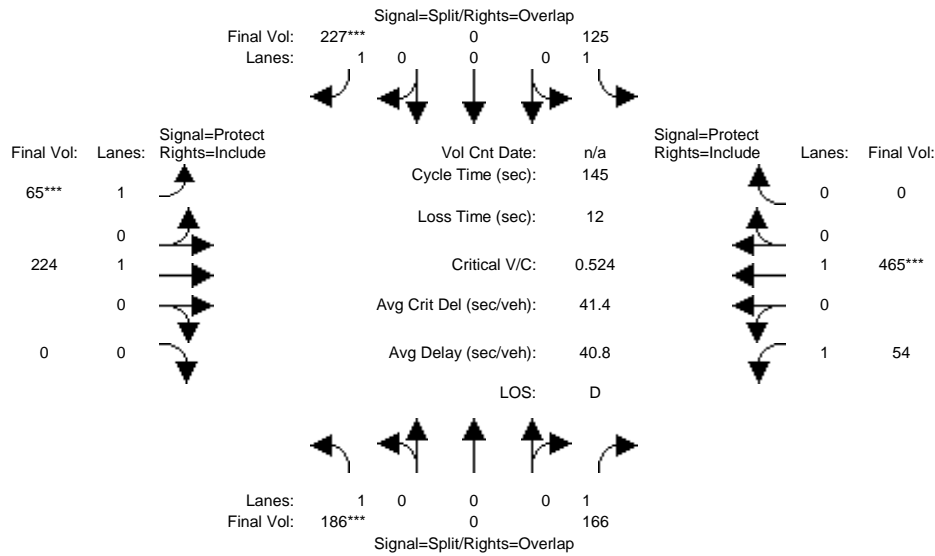
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.:             | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.10 | 0.00 | 0.09 | 0.07 | 0.00 | 0.13 | 0.04 | 0.12 | 0.00 | 0.03 | 0.20 | 0.00 |
| Crit Moves:               | **** |      |      |      |      | **** | **** |      |      |      | **** |      |
| Green Time:               | 31.1 | 0.0  | 52.5 | 24.9 | 0.0  | 36.2 | 11.4 | 52.2 | 0.0  | 21.4 | 62.3 | 0.0  |
| Volume/Cap:               | 0.47 | 0.00 | 0.26 | 0.39 | 0.00 | 0.52 | 0.47 | 0.33 | 0.00 | 0.21 | 0.47 | 0.00 |
| Uniform Del:              | 49.8 | 0.0  | 32.6 | 53.3 | 0.0  | 46.9 | 64.0 | 33.6 | 0.0  | 54.4 | 29.6 | 0.0  |
| IncrcmntDel:              | 0.9  | 0.0  | 0.2  | 0.8  | 0.0  | 1.1  | 2.6  | 0.3  | 0.0  | 0.4  | 0.4  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:                | 50.8 | 0.0  | 32.8 | 54.2 | 0.0  | 48.0 | 66.5 | 33.9 | 0.0  | 54.8 | 30.1 | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 50.8 | 0.0  | 32.8 | 54.2 | 0.0  | 48.0 | 66.5 | 33.9 | 0.0  | 54.8 | 30.1 | 0.0  |
| LOS by Move:              | D    | A    | C-   | D-   | A    | D    | E    | C-   | A    | D-   | C    | A    |
| HCM2kAvgQ:                | 8    | 0    | 5    | 5    | 0    | 10   | 4    | 7    | 0    | 2    | 12   | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P AM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 178  | 0    | 166  | 118  | 0    | 227  | 65   | 224  | 0    | 54   | 387  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 178  | 0    | 166  | 118  | 0    | 227  | 65   | 224  | 0    | 54   | 387  | 0    |
| Added Vol:     | 8    | 0    | 0    | 7    | 0    | 0    | 0    | 0    | 0    | 0    | 78   | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 186  | 0    | 166  | 125  | 0    | 227  | 65   | 224  | 0    | 54   | 465  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 186  | 0    | 166  | 125  | 0    | 227  | 65   | 224  | 0    | 54   | 465  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 186  | 0    | 166  | 125  | 0    | 227  | 65   | 224  | 0    | 54   | 465  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 186  | 0    | 166  | 125  | 0    | 227  | 65   | 224  | 0    | 54   | 465  | 0    |

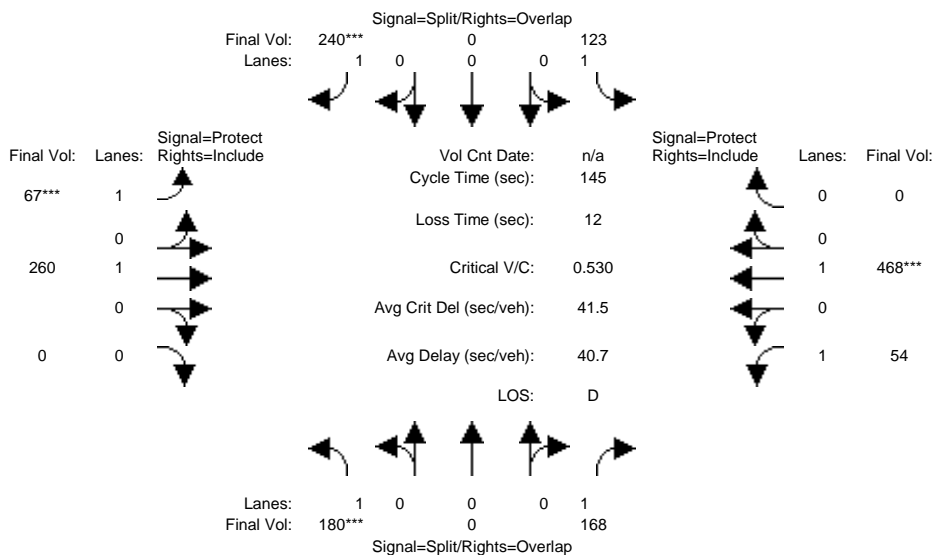
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.:             | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.11 | 0.00 | 0.09 | 0.07 | 0.00 | 0.13 | 0.04 | 0.12 | 0.00 | 0.03 | 0.24 | 0.00 |
| Crit Moves:               | ***  |      |      |      |      | ***  | ***  |      |      |      | ***  |      |
| Green Time:               | 29.4 | 0.0  | 52.1 | 22.5 | 0.0  | 32.8 | 10.3 | 55.3 | 0.0  | 22.7 | 67.7 | 0.0  |
| Volume/Cap:               | 0.52 | 0.00 | 0.26 | 0.46 | 0.00 | 0.57 | 0.52 | 0.31 | 0.00 | 0.20 | 0.52 | 0.00 |
| Uniform Del:              | 51.6 | 0.0  | 32.9 | 55.7 | 0.0  | 49.9 | 65.0 | 31.4 | 0.0  | 53.3 | 27.3 | 0.0  |
| IncrcmntDel:              | 1.4  | 0.0  | 0.2  | 1.2  | 0.0  | 2.0  | 4.1  | 0.2  | 0.0  | 0.4  | 0.6  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:                | 53.0 | 0.0  | 33.1 | 56.9 | 0.0  | 51.9 | 69.1 | 31.7 | 0.0  | 53.6 | 27.9 | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 53.0 | 0.0  | 33.1 | 56.9 | 0.0  | 51.9 | 69.1 | 31.7 | 0.0  | 53.6 | 27.9 | 0.0  |
| LOS by Move:              | D-   | A    | C-   | E+   | A    | D-   | E    | C    | A    | D-   | C    | A    |
| HCM2kAvgQ:                | 8    | 0    | 5    | 6    | 0    | 10   | 4    | 7    | 0    | 2    | 14   | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 180  | 0    | 168  | 123  | 0    | 240  | 67   | 260  | 0    | 54   | 468  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 180  | 0    | 168  | 123  | 0    | 240  | 67   | 260  | 0    | 54   | 468  | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 180  | 0    | 168  | 123  | 0    | 240  | 67   | 260  | 0    | 54   | 468  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 180  | 0    | 168  | 123  | 0    | 240  | 67   | 260  | 0    | 54   | 468  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 180  | 0    | 168  | 123  | 0    | 240  | 67   | 260  | 0    | 54   | 468  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 180  | 0    | 168  | 123  | 0    | 240  | 67   | 260  | 0    | 54   | 468  | 0    |

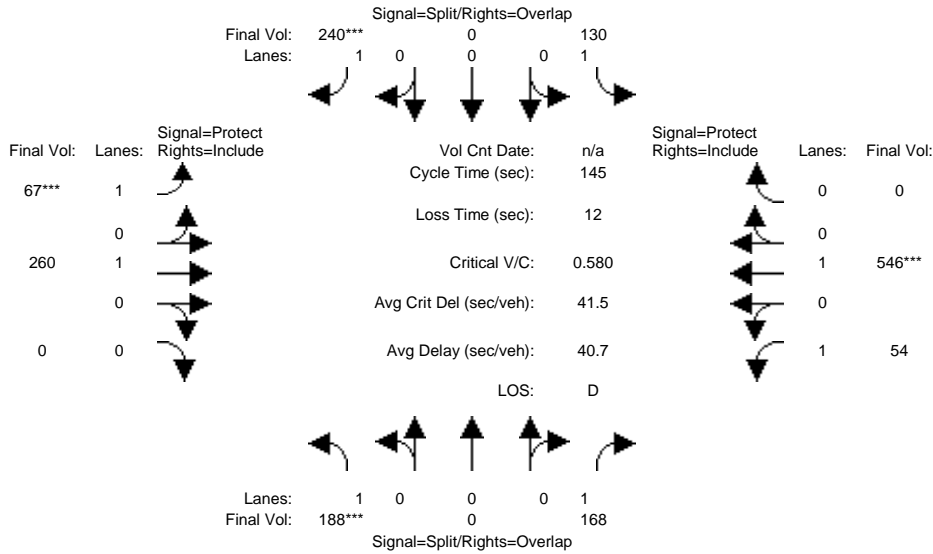
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.:             | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.10 | 0.00 | 0.10 | 0.07 | 0.00 | 0.14 | 0.04 | 0.14 | 0.00 | 0.03 | 0.25 | 0.00 |
| Crit Moves:               | ***  |      |      |      |      | ***  | ***  |      |      |      | ***  |      |
| Green Time:               | 28.1 | 0.0  | 48.4 | 24.3 | 0.0  | 34.8 | 10.5 | 57.5 | 0.0  | 20.3 | 67.4 | 0.0  |
| Volume/Cap:               | 0.53 | 0.00 | 0.29 | 0.42 | 0.00 | 0.57 | 0.53 | 0.34 | 0.00 | 0.22 | 0.53 | 0.00 |
| Uniform Del:              | 52.5 | 0.0  | 35.6 | 54.0 | 0.0  | 48.6 | 64.9 | 30.6 | 0.0  | 55.3 | 27.6 | 0.0  |
| IncramntDel:              | 1.6  | 0.0  | 0.3  | 1.0  | 0.0  | 1.9  | 4.2  | 0.3  | 0.0  | 0.5  | 0.6  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:                | 54.1 | 0.0  | 35.8 | 55.0 | 0.0  | 50.5 | 69.1 | 30.8 | 0.0  | 55.8 | 28.2 | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 54.1 | 0.0  | 35.8 | 55.0 | 0.0  | 50.5 | 69.1 | 30.8 | 0.0  | 55.8 | 28.2 | 0.0  |
| LOS by Move:              | D-   | A    | D+   | E+   | A    | D    | E    | C    | A    | E+   | C    | A    |
| HCM2kAvgQ:                | 8    | 0    | 6    | 6    | 0    | 11   | 4    | 8    | 0    | 2    | 14   | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P AM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 180  | 0    | 168  | 123  | 0    | 240  | 67   | 260  | 0    | 54   | 468  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 180  | 0    | 168  | 123  | 0    | 240  | 67   | 260  | 0    | 54   | 468  | 0    |
| Added Vol:     | 8    | 0    | 0    | 7    | 0    | 0    | 0    | 0    | 0    | 0    | 78   | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 188  | 0    | 168  | 130  | 0    | 240  | 67   | 260  | 0    | 54   | 546  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 188  | 0    | 168  | 130  | 0    | 240  | 67   | 260  | 0    | 54   | 546  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 188  | 0    | 168  | 130  | 0    | 240  | 67   | 260  | 0    | 54   | 546  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 188  | 0    | 168  | 130  | 0    | 240  | 67   | 260  | 0    | 54   | 546  | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.:             | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

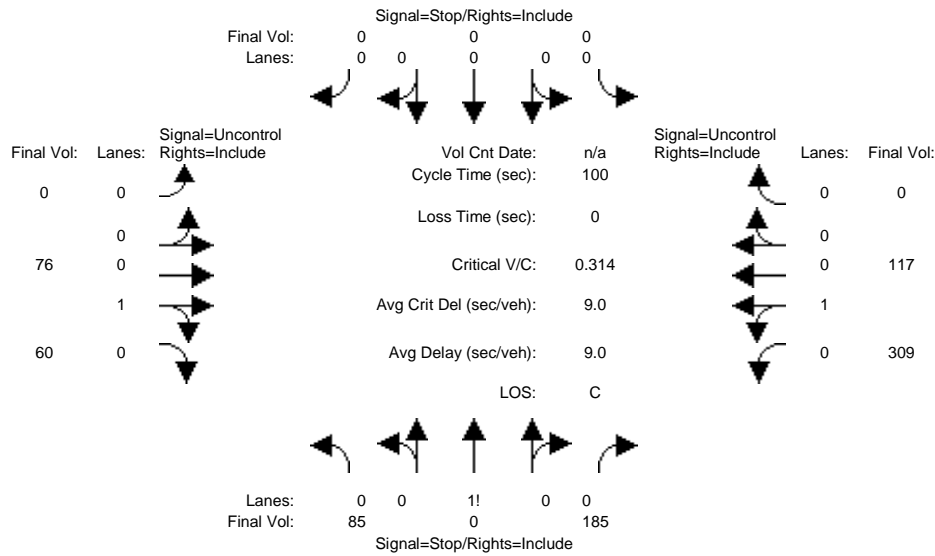
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.11 | 0.00 | 0.10 | 0.07 | 0.00 | 0.14 | 0.04 | 0.14 | 0.00 | 0.03 | 0.29 | 0.00 |
| Crit Moves:               | ***  |      |      |      |      | ***  | ***  |      |      |      | ***  |      |
| Green Time:               | 26.9 | 0.0  | 48.1 | 22.2 | 0.0  | 31.8 | 9.6  | 60.2 | 0.0  | 21.2 | 71.9 | 0.0  |
| Volume/Cap:               | 0.58 | 0.00 | 0.29 | 0.48 | 0.00 | 0.63 | 0.58 | 0.33 | 0.00 | 0.21 | 0.58 | 0.00 |
| Uniform Del:              | 53.9 | 0.0  | 35.8 | 56.2 | 0.0  | 51.2 | 65.8 | 28.7 | 0.0  | 54.5 | 25.9 | 0.0  |
| IncrcmntDel:              | 2.6  | 0.0  | 0.3  | 1.4  | 0.0  | 3.2  | 7.2  | 0.2  | 0.0  | 0.4  | 0.9  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:                | 56.6 | 0.0  | 36.1 | 57.5 | 0.0  | 54.5 | 73.0 | 29.0 | 0.0  | 54.9 | 26.8 | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 56.6 | 0.0  | 36.1 | 57.5 | 0.0  | 54.5 | 73.0 | 29.0 | 0.0  | 54.9 | 26.8 | 0.0  |
| LOS by Move:              | E+   | A    | D+   | E+   | A    | D-   | E    | C    | A    | D-   | C    | A    |
| HCM2kAvgQ:                | 9    | 0    | 6    | 6    | 0    | 11   | 4    | 8    | 0    | 2    | 17   | 0    |

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



Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for different movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 13 columns representing critical gap modules. Rows include Critical Gap and FollowUpTim.

Table with 13 columns representing capacity modules. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #13 Morse Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 85 0 185    | 0 0 0 0     | 0 76 60      | 309 117 0    |
| ApproachDel: | 18.5        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.4]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=270]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=832]
    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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 85 0 185    | 0 0 0 0     | 0 76 60      | 309 117 0    |

```

Major Street Volume:          562
Minor Approach Volume:        270
Minor Approach Volume Threshold: 373
    
```

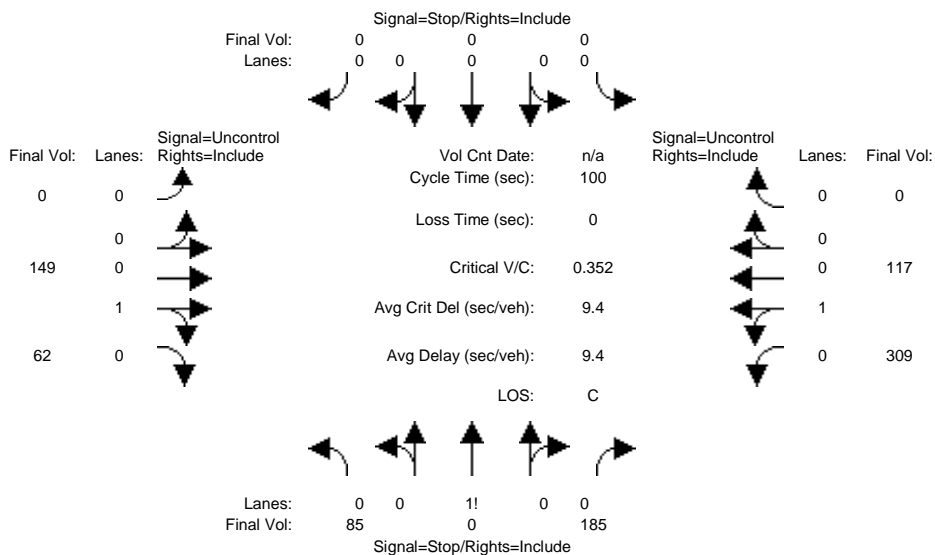
-----  
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Existing+P AM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

|              |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:    | 85   | 0    | 185  | 0    | 0    | 0    | 0    | 76   | 60   | 309  | 117  | 0    |
| Growth Adj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 85   | 0    | 185  | 0    | 0    | 0    | 0    | 76   | 60   | 309  | 117  | 0    |
| Added Vol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 73   | 2    | 0    | 0    | 0    |
| PasserByVol: | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut: | 85   | 0    | 185  | 0    | 0    | 0    | 0    | 149  | 62   | 309  | 117  | 0    |
| User Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:  | 85   | 0    | 185  | 0    | 0    | 0    | 0    | 149  | 62   | 309  | 117  | 0    |
| Reduct Vol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume: | 85   | 0    | 185  | 0    | 0    | 0    | 0    | 149  | 62   | 309  | 117  | 0    |

Critical Gap Module:

|              |     |     |     |       |      |       |       |      |      |       |     |      |       |
|--------------|-----|-----|-----|-------|------|-------|-------|------|------|-------|-----|------|-------|
| Critical Gp: | 6.4 | 6.5 | 6.2 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx |

Capacity Module:

|              |      |      |      |      |      |       |      |      |       |      |      |       |
|--------------|------|------|------|------|------|-------|------|------|-------|------|------|-------|
| Cnflct Vol:  | 915  | 915  | 180  | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 211  | xxxx | xxxxx |
| Potent Cap.: | 305  | 275  | 868  | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1372 | xxxx | xxxxx |
| Move Cap.:   | 241  | 200  | 868  | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1372 | xxxx | xxxxx |
| Volume/Cap:  | 0.35 | 0.00 | 0.21 | xxxx | xxxx | xxxx  | xxxx | xxxx | xxxx  | 0.23 | xxxx | xxxx  |

Level Of Service Module:

|              |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:   | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | 0.9           | xxxx          | xxxxx         |
| Control Del: | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 8.4           | xxxx          | xxxxx         |
| LOS by Move: | *             | *             | *             | *             | *             | *             | *             | *             | *             | A             | *             | *             |
| Movement:    | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.: | xxxx          | 477           | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         |
| SharedQueue: | xxxxx         | 3.4           | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 0.9           | xxxx          | xxxxx         |
| Shrd ConDel: | xxxxx         | 21.9          | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 8.4           | xxxx          | xxxxx         |
| Shared LOS:  | *             | C             | *             | *             | *             | *             | *             | *             | *             | A             | *             | *             |
| ApproachDel: | 21.9          |               |               | xxxxxxx       |               |               | xxxxxxx       |               | xxxxxxx       |               |               |               |
| ApproachLOS: | C             |               |               | *             |               |               | *             |               | *             |               |               | *             |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 85 0 185    | 0 0 0       | 0 149 62     | 309 117 0    |
| ApproachDel: | 21.9        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.6]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=270]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=907]
    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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 85 0 185    | 0 0 0       | 0 149 62     | 309 117 0    |

```

Major Street Volume:          637
Minor Approach Volume:       270
Minor Approach Volume Threshold: 340
    
```

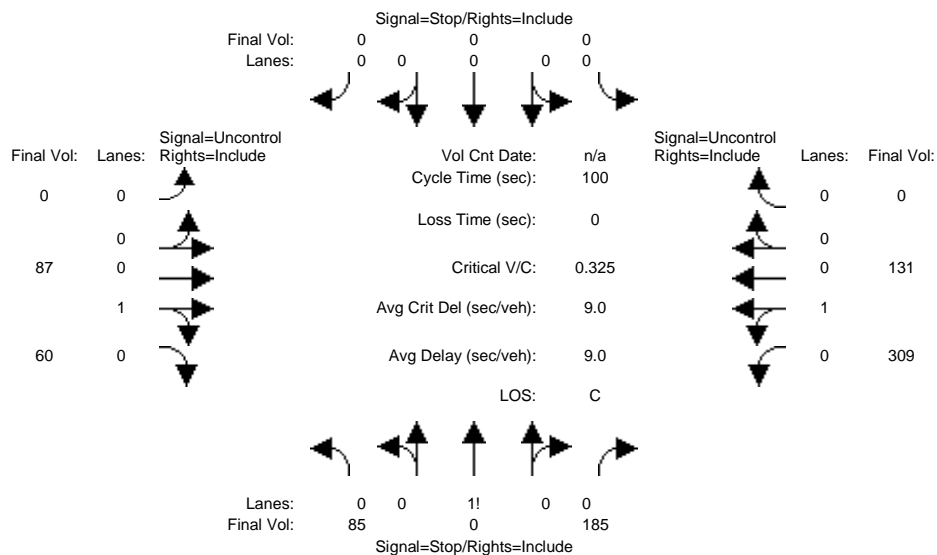
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #13 Morse Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 85 0 185    | 0 0 0 0     | 0 87 60      | 309 131 0    |
| ApproachDel: | 19.3        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.4]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=270]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=857]
    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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:                         | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:                           | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol:                     | 85 0 185    | 0 0 0 0     | 0 87 60      | 309 131 0    |
| Major Street Volume:             |             | 587         |              |              |
| Minor Approach Volume:           |             | 270         |              |              |
| Minor Approach Volume Threshold: |             | 361         |              |              |

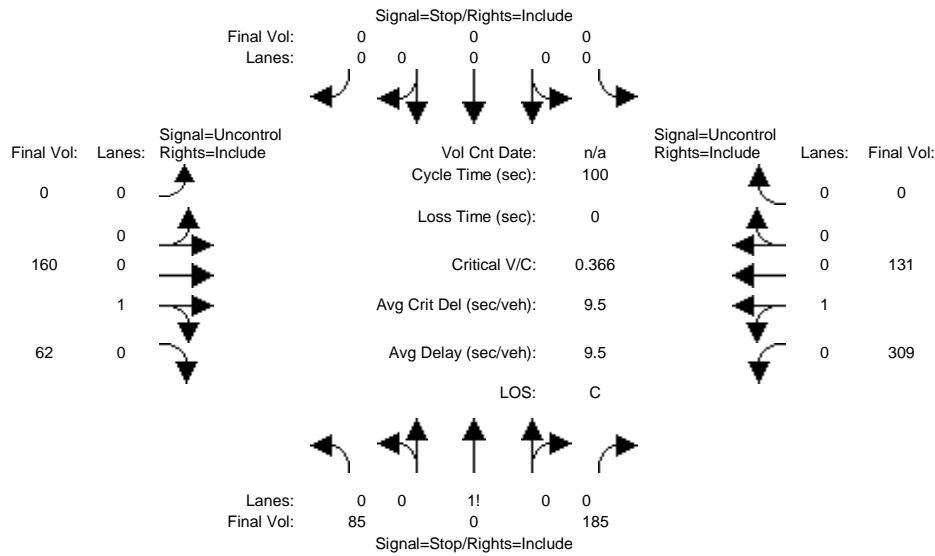
-----  
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P AM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 12 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 85 0 185    | 0 0 0 0     | 0 160 62     | 309 131 0    |
| ApproachDel: | 23.0        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][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=270]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=932]
    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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 85 0 185    | 0 0 0 0     | 0 160 62     | 309 131 0    |

```

Major Street Volume:          662
Minor Approach Volume:        270
Minor Approach Volume Threshold: 329
    
```

-----  
SIGNAL WARRANT DISCLAIMER

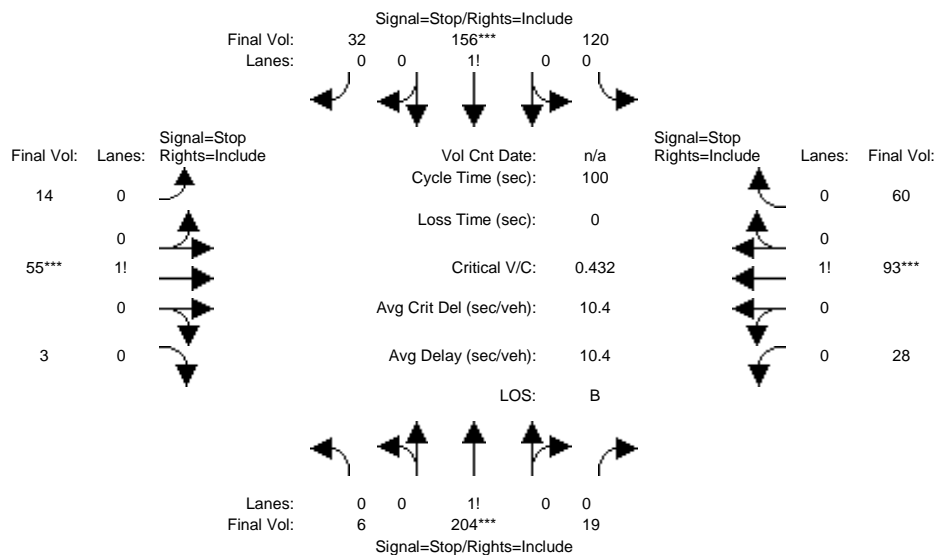
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Existing AM

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 6    | 204  | 19   | 120  | 156  | 32   | 14   | 55   | 3    | 28   | 93   | 60   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 6    | 204  | 19   | 120  | 156  | 32   | 14   | 55   | 3    | 28   | 93   | 60   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 6    | 204  | 19   | 120  | 156  | 32   | 14   | 55   | 3    | 28   | 93   | 60   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 6    | 204  | 19   | 120  | 156  | 32   | 14   | 55   | 3    | 28   | 93   | 60   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 6    | 204  | 19   | 120  | 156  | 32   | 14   | 55   | 3    | 28   | 93   | 60   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 6    | 204  | 19   | 120  | 156  | 32   | 14   | 55   | 3    | 28   | 93   | 60   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.03 | 0.89 | 0.08 | 0.39 | 0.51 | 0.10 | 0.19 | 0.77 | 0.04 | 0.15 | 0.52 | 0.33 |
| Final Sat.:             | 18   | 624  | 58   | 278  | 362  | 74   | 115  | 454  | 25   | 101  | 335  | 216  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.33 | 0.33 | 0.33 | 0.43 | 0.43 | 0.43 | 0.12 | 0.12 | 0.12 | 0.28 | 0.28 | 0.28 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Delay/Veh:                | 10.1 | 10.1 | 10.1 | 11.3 | 11.3 | 11.3 | 9.1  | 9.1  | 9.1  | 9.9  | 9.9  | 9.9  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 10.1 | 10.1 | 10.1 | 11.3 | 11.3 | 11.3 | 9.1  | 9.1  | 9.1  | 9.9  | 9.9  | 9.9  |
| LOS by Move:              | B    | B    | B    | B    | B    | B    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              | 10.1 |      |      | 11.3 |      |      | 9.1  |      |      | 9.9  |      |      |
| Delay Adj:                | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      |
| ApprAdjDel:               | 10.1 |      |      | 11.3 |      |      | 9.1  |      |      | 9.9  |      |      |
| LOS by Appr:              | B    |      |      | B    |      |      | A    |      |      | A    |      |      |
| AllWayAvgQ:               | 0.4  | 0.4  | 0.4  | 0.7  | 0.7  | 0.7  | 0.1  | 0.1  | 0.1  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #14 Morse Ave & Duane Ave

\*\*\*\*\*

Future 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 | L          | -  | T  | -  | R |
| Control:                         | Stop Sign   |     |    |    |   | Stop Sign   |     |    |    |   | Stop Sign  |    |    |   |   | Stop Sign  |    |    |    |   |
| Lanes:                           | 0           | 0   | 1! | 0  | 0 | 0           | 0   | 1! | 0  | 0 | 0          | 0  | 1! | 0 | 0 | 0          | 0  | 1! | 0  | 0 |
| Initial Vol:                     | 6           | 204 |    | 19 |   | 120         | 156 |    | 32 |   | 14         | 55 |    | 3 |   | 28         | 93 |    | 60 |   |
| Major Street Volume:             |             |     |    |    |   |             |     |    |    |   | 537        |    |    |   |   |            |    |    |    |   |
| Minor Approach Volume:           |             |     |    |    |   |             |     |    |    |   | 181        |    |    |   |   |            |    |    |    |   |
| Minor Approach Volume Threshold: |             |     |    |    |   |             |     |    |    |   | 385        |    |    |   |   |            |    |    |    |   |

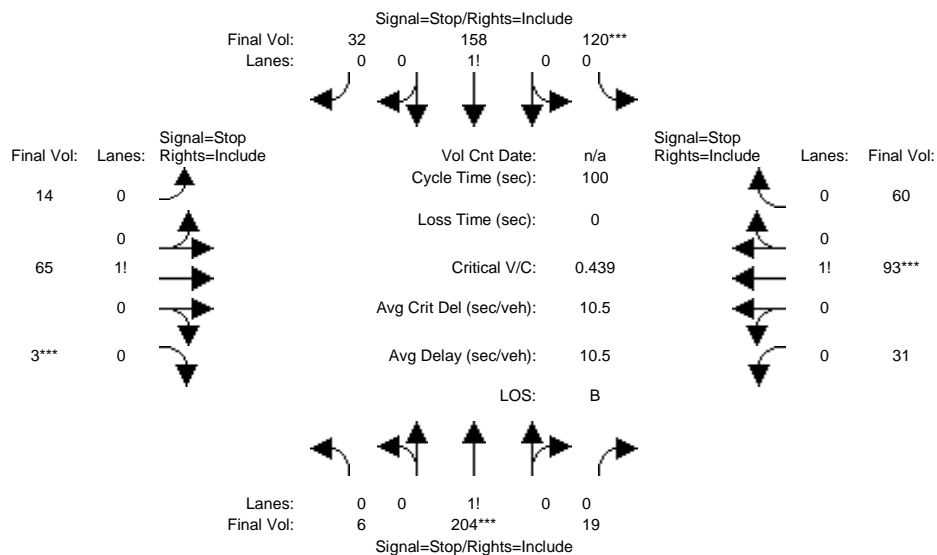
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Existing+P AM

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 6    | 204  | 19   | 120  | 156  | 32   | 14   | 55   | 3    | 28   | 93   | 60   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 6    | 204  | 19   | 120  | 156  | 32   | 14   | 55   | 3    | 28   | 93   | 60   |
| Added Vol:     | 0    | 0    | 0    | 0    | 2    | 0    | 0    | 10   | 0    | 3    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 6    | 204  | 19   | 120  | 158  | 32   | 14   | 65   | 3    | 31   | 93   | 60   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 6    | 204  | 19   | 120  | 158  | 32   | 14   | 65   | 3    | 31   | 93   | 60   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 6    | 204  | 19   | 120  | 158  | 32   | 14   | 65   | 3    | 31   | 93   | 60   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 6    | 204  | 19   | 120  | 158  | 32   | 14   | 65   | 3    | 31   | 93   | 60   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.03 | 0.89 | 0.08 | 0.39 | 0.51 | 0.10 | 0.17 | 0.79 | 0.04 | 0.17 | 0.50 | 0.33 |
| Final Sat.:             | 18   | 617  | 58   | 273  | 360  | 73   | 101  | 469  | 22   | 109  | 327  | 211  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.33 | 0.33 | 0.33 | 0.44 | 0.44 | 0.44 | 0.14 | 0.14 | 0.14 | 0.28 | 0.28 | 0.28 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Delay/Veh:                | 10.2 | 10.2 | 10.2 | 11.4 | 11.4 | 11.4 | 9.2  | 9.2  | 9.2  | 10.0 | 10.0 | 10.0 |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 10.2 | 10.2 | 10.2 | 11.4 | 11.4 | 11.4 | 9.2  | 9.2  | 9.2  | 10.0 | 10.0 | 10.0 |
| LOS by Move:              | B    | B    | B    | B    | B    | B    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              | 10.2 |      |      | 11.4 |      |      | 9.2  |      |      | 10.0 |      |      |
| Delay Adj:                | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      |
| ApprAdjDel:               | 10.2 |      |      | 11.4 |      |      | 9.2  |      |      | 10.0 |      |      |
| LOS by Appr:              | B    |      |      | B    |      |      | A    |      |      | A    |      |      |
| AllWayAvgQ:               | 0.4  | 0.4  | 0.4  | 0.7  | 0.7  | 0.7  | 0.1  | 0.1  | 0.1  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #14 Morse Ave & Duane Ave

\*\*\*\*\*

Future 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 | L          | -  | T  | -  | R |
| Control:                         | Stop Sign   |     |    |    |   | Stop Sign   |     |    |    |   | Stop Sign  |    |    |   |   | Stop Sign  |    |    |    |   |
| Lanes:                           | 0           | 0   | 1! | 0  | 0 | 0           | 0   | 1! | 0  | 0 | 0          | 0  | 1! | 0 | 0 | 0          | 0  | 1! | 0  | 0 |
| Initial Vol:                     | 6           | 204 |    | 19 |   | 120         | 158 |    | 32 |   | 14         | 65 |    | 3 |   | 31         | 93 |    | 60 |   |
| Major Street Volume:             |             |     |    |    |   |             |     |    |    |   | 539        |    |    |   |   |            |    |    |    |   |
| Minor Approach Volume:           |             |     |    |    |   |             |     |    |    |   | 184        |    |    |   |   |            |    |    |    |   |
| Minor Approach Volume Threshold: |             |     |    |    |   |             |     |    |    |   | 384        |    |    |   |   |            |    |    |    |   |

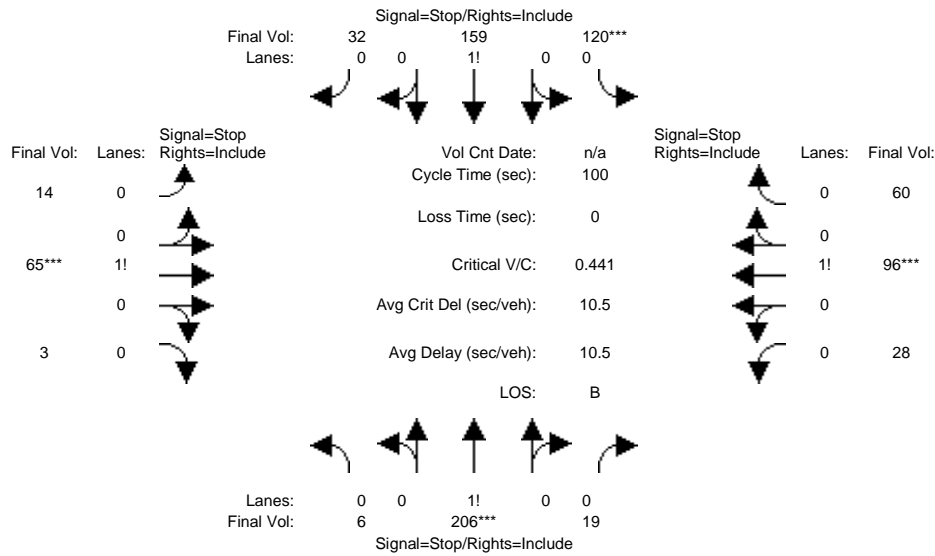
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Bkgd AM

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 6    | 206  | 19   | 120  | 159  | 32   | 14   | 65   | 3    | 28   | 96   | 60   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 6    | 206  | 19   | 120  | 159  | 32   | 14   | 65   | 3    | 28   | 96   | 60   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 6    | 206  | 19   | 120  | 159  | 32   | 14   | 65   | 3    | 28   | 96   | 60   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 6    | 206  | 19   | 120  | 159  | 32   | 14   | 65   | 3    | 28   | 96   | 60   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 6    | 206  | 19   | 120  | 159  | 32   | 14   | 65   | 3    | 28   | 96   | 60   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 6    | 206  | 19   | 120  | 159  | 32   | 14   | 65   | 3    | 28   | 96   | 60   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.03 | 0.89 | 0.08 | 0.39 | 0.51 | 0.10 | 0.17 | 0.79 | 0.04 | 0.15 | 0.52 | 0.33 |
| Final Sat.:             | 18   | 618  | 57   | 272  | 361  | 73   | 101  | 468  | 22   | 98   | 337  | 210  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.33 | 0.33 | 0.33 | 0.44 | 0.44 | 0.44 | 0.14 | 0.14 | 0.14 | 0.29 | 0.29 | 0.29 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Delay/Veh:                | 10.2 | 10.2 | 10.2 | 11.5 | 11.5 | 11.5 | 9.3  | 9.3  | 9.3  | 10.0 | 10.0 | 10.0 |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 10.2 | 10.2 | 10.2 | 11.5 | 11.5 | 11.5 | 9.3  | 9.3  | 9.3  | 10.0 | 10.0 | 10.0 |
| LOS by Move:              | B    | B    | B    | B    | B    | B    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              |      | 10.2 |      |      | 11.5 |      |      | 9.3  |      |      | 10.0 |      |
| Delay Adj:                |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               |      | 10.2 |      |      | 11.5 |      |      | 9.3  |      |      | 10.0 |      |
| LOS by Appr:              |      | B    |      |      | B    |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.4  | 0.4  | 0.4  | 0.7  | 0.7  | 0.7  | 0.1  | 0.1  | 0.1  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #14 Morse Ave & Duane Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |     |    |    | South Bound |     |     |    | East Bound |   |    |    | West Bound |   |   |    |    |    |    |   |
|----------------------------------|-------------|-----|----|----|-------------|-----|-----|----|------------|---|----|----|------------|---|---|----|----|----|----|---|
| Movement:                        | L           | -   | T  | -  | R           | L   | -   | T  | -          | R | L  | -  | T          | - | R | L  | -  | T  | -  | R |
| Control:                         | Stop Sign   |     |    |    | Stop Sign   |     |     |    | Stop Sign  |   |    |    | Stop Sign  |   |   |    |    |    |    |   |
| Lanes:                           | 0           | 0   | 1! | 0  | 0           | 0   | 0   | 1! | 0          | 0 | 0  | 0  | 1!         | 0 | 0 | 0  | 0  | 1! | 0  | 0 |
| Initial Vol:                     | 6           | 206 |    | 19 |             | 120 | 159 |    | 32         |   | 14 | 65 |            | 3 |   | 28 | 96 |    | 60 |   |
| Major Street Volume:             |             |     |    |    | 542         |     |     |    |            |   |    |    |            |   |   |    |    |    |    |   |
| Minor Approach Volume:           |             |     |    |    | 184         |     |     |    |            |   |    |    |            |   |   |    |    |    |    |   |
| Minor Approach Volume Threshold: |             |     |    |    | 383         |     |     |    |            |   |    |    |            |   |   |    |    |    |    |   |

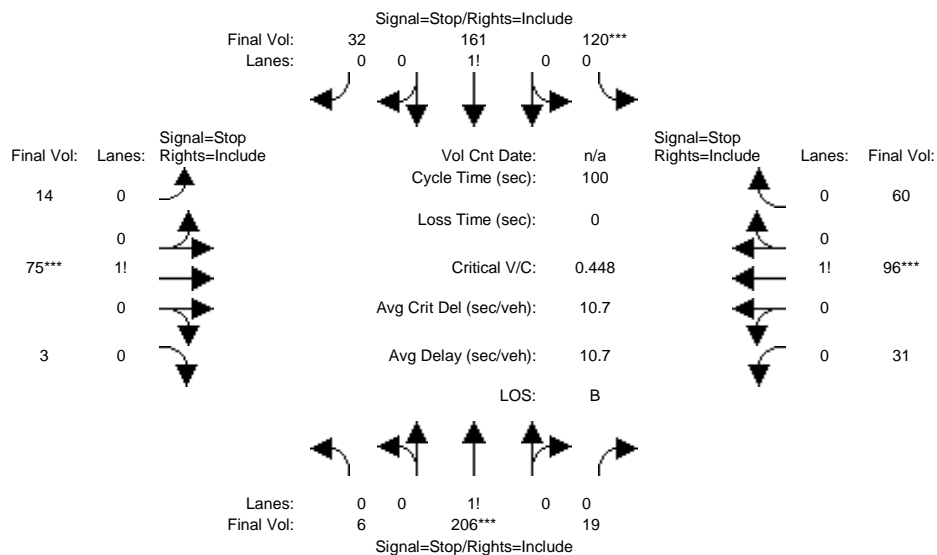
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Bkgd+P AM

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 6    | 206  | 19   | 120  | 159  | 32   | 14   | 65   | 3    | 28   | 96   | 60   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 6    | 206  | 19   | 120  | 159  | 32   | 14   | 65   | 3    | 28   | 96   | 60   |
| Added Vol:     | 0    | 0    | 0    | 0    | 2    | 0    | 0    | 10   | 0    | 3    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 6    | 206  | 19   | 120  | 161  | 32   | 14   | 75   | 3    | 31   | 96   | 60   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 6    | 206  | 19   | 120  | 161  | 32   | 14   | 75   | 3    | 31   | 96   | 60   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 6    | 206  | 19   | 120  | 161  | 32   | 14   | 75   | 3    | 31   | 96   | 60   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 6    | 206  | 19   | 120  | 161  | 32   | 14   | 75   | 3    | 31   | 96   | 60   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.03 | 0.89 | 0.08 | 0.38 | 0.52 | 0.10 | 0.15 | 0.82 | 0.03 | 0.17 | 0.51 | 0.32 |
| Final Sat.:             | 18   | 610  | 56   | 268  | 359  | 71   | 90   | 480  | 19   | 106  | 329  | 206  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.34 | 0.34 | 0.34 | 0.45 | 0.45 | 0.45 | 0.16 | 0.16 | 0.16 | 0.29 | 0.29 | 0.29 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Delay/Veh:                | 10.3 | 10.3 | 10.3 | 11.6 | 11.6 | 11.6 | 9.4  | 9.4  | 9.4  | 10.1 | 10.1 | 10.1 |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 10.3 | 10.3 | 10.3 | 11.6 | 11.6 | 11.6 | 9.4  | 9.4  | 9.4  | 10.1 | 10.1 | 10.1 |
| LOS by Move:              | B    | B    | B    | B    | B    | B    | A    | A    | A    | B    | B    | B    |
| ApproachDel:              |      | 10.3 |      |      | 11.6 |      |      | 9.4  |      |      | 10.1 |      |
| Delay Adj:                |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               |      | 10.3 |      |      | 11.6 |      |      | 9.4  |      |      | 10.1 |      |
| LOS by Appr:              |      | B    |      |      | B    |      |      | A    |      |      | B    |      |
| AllWayAvgQ:               | 0.4  | 0.4  | 0.4  | 0.7  | 0.7  | 0.7  | 0.1  | 0.1  | 0.1  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #14 Morse Ave & Duane Ave

\*\*\*\*\*

Future 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 | L  | -  | T  | -  | R |
| Control:                         | Stop Sign   |     |    |    | Stop Sign   |     |     |    | Stop Sign  |   |    |    | Stop Sign  |   |   |    |    |    |    |   |
| Lanes:                           | 0           | 0   | 1! | 0  | 0           | 0   | 0   | 1! | 0          | 0 | 0  | 0  | 1!         | 0 | 0 | 0  | 0  | 1! | 0  | 0 |
| Initial Vol:                     | 6           | 206 |    | 19 |             | 120 | 161 |    | 32         |   | 14 | 75 |            | 3 |   | 31 | 96 |    | 60 |   |
| Major Street Volume:             |             |     |    |    | 544         |     |     |    |            |   |    |    |            |   |   |    |    |    |    |   |
| Minor Approach Volume:           |             |     |    |    | 187         |     |     |    |            |   |    |    |            |   |   |    |    |    |    |   |
| Minor Approach Volume Threshold: |             |     |    |    | 382         |     |     |    |            |   |    |    |            |   |   |    |    |    |    |   |

SIGNAL WARRANT DISCLAIMER

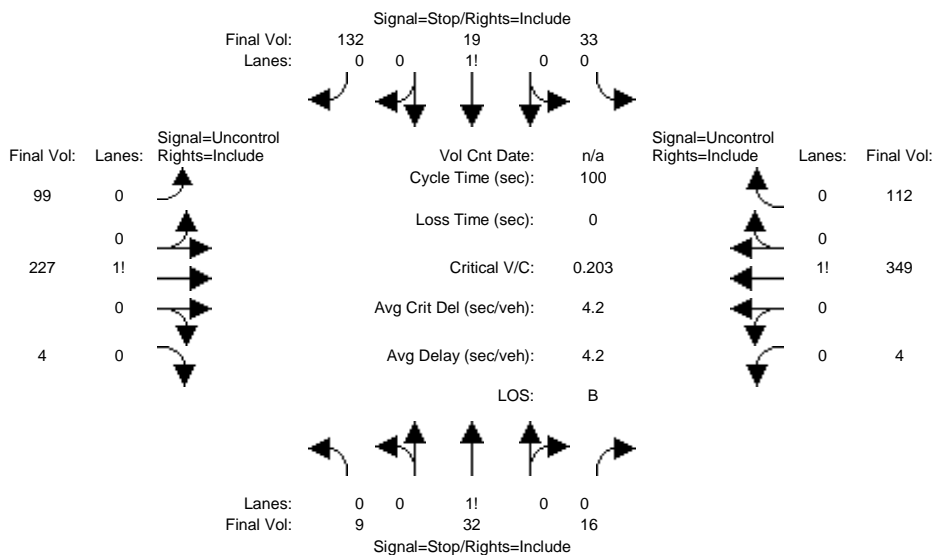
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Existing AM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

|              |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:    | 9    | 32   | 16   | 33   | 19   | 132  | 99   | 227  | 4    | 4    | 349  | 112  |
| Growth Adj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 9    | 32   | 16   | 33   | 19   | 132  | 99   | 227  | 4    | 4    | 349  | 112  |
| Added Vol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol: | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut: | 9    | 32   | 16   | 33   | 19   | 132  | 99   | 227  | 4    | 4    | 349  | 112  |
| User Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:  | 9    | 32   | 16   | 33   | 19   | 132  | 99   | 227  | 4    | 4    | 349  | 112  |
| Reduct Vol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume: | 9    | 32   | 16   | 33   | 19   | 132  | 99   | 227  | 4    | 4    | 349  | 112  |

Critical Gap Module:

|              |     |     |     |     |     |     |     |      |       |     |      |       |
|--------------|-----|-----|-----|-----|-----|-----|-----|------|-------|-----|------|-------|
| Critical Gp: | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |

Capacity Module:

|              |      |      |       |      |      |       |      |      |       |      |      |       |
|--------------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Cnflct Vol:  | 916  | 896  | 229   | 864  | 842  | 405   | 461  | xxxx | xxxxx | 231  | xxxx | xxxxx |
| Potent Cap.: | 255  | 282  | 815   | 277  | 303  | 650   | 1111 | xxxx | xxxxx | 1349 | xxxx | xxxxx |
| Move Cap.:   | 179  | 255  | 815   | 227  | 274  | 650   | 1111 | xxxx | xxxxx | 1349 | xxxx | xxxxx |
| Total Cap:   | 302  | 392  | xxxxx | 412  | 439  | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap:  | 0.03 | 0.08 | 0.02  | 0.08 | 0.04 | 0.20  | 0.09 | xxxx | xxxx  | 0.00 | xxxx | xxxx  |

Level Of Service Module:

|              |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:   | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | 0.3           | xxxx          | xxxxx         | 0.0           | xxxx          | xxxxx         |
| Control Del: | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 8.6           | xxxx          | xxxxx         | 7.7           | xxxx          | xxxxx         |
| LOS by Move: | *             | *             | *             | *             | *             | *             | A             | *             | *             | A             | *             | *             |
| Movement:    | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.: | xxxx          | 435           | xxxxx         | xxxx          | 564           | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         |
| SharedQueue: | xxxxx         | 0.4           | xxxxx         | xxxxx         | 1.4           | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         |
| Shrd ConDel: | xxxxx         | 14.5          | xxxxx         | xxxxx         | 14.5          | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         |
| Shared LOS:  | *             | B             | *             | *             | B             | *             | *             | *             | *             | *             | *             | *             |
| ApproachDel: | 14.5          |               |               | 14.5          |               |               | xxxxxx        |               |               | xxxxxx        |               |               |
| ApproachLOS: | B             |               |               | B             |               |               | *             |               |               | *             |               | *             |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #15 Morse Ave & Maude Ave

\*\*\*\*\*

Future 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    | 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: | 9 32 16     | 33 19 132   | 99 227 4     | 4 349 112    |
| ApproachDel: | 14.5        | 14.5        | 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=57]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1036]  
 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=0.7]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=184]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1036]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 9 32 16     | 33 19 132   | 99 227 4     | 4 349 112    |

Major Street Volume: 795  
 Minor Approach Volume: 184  
 Minor Approach Volume Threshold: 281

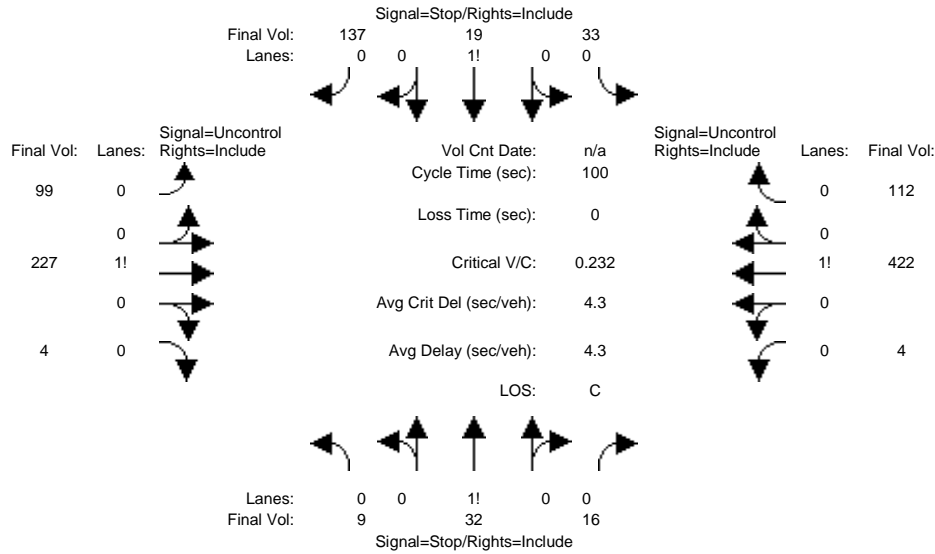
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P AM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing volume modules for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing critical gap modules. Rows include Critical Gap and FollowUpTime for various movements.

Table with 12 columns representing capacity modules. Rows include Conflict Volume, Potent Capacity, Move Capacity, Total Capacity, and Volume/Capacity for various movements.

Table with 12 columns representing level of service modules. Rows include 2Way95thQ, Control Delay, LOS by Move, Movement, Shared Capacity, Shared Queue, Shrd ConDel, Shared LOS, Approach Delay, and Approach LOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #15 Morse Ave & Maude Ave
\*\*\*\*\*
Future 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    | 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: | 9 32 16     | 33 19 137   | 99 227 4     | 4 422 112    |
| ApproachDel: | 15.5        | 15.7        | 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=57]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1114]  
 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=0.8]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=189]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1114]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 9 32 16     | 33 19 137   | 99 227 4     | 4 422 112    |

Major Street Volume: 868  
 Minor Approach Volume: 189  
 Minor Approach Volume Threshold: 257

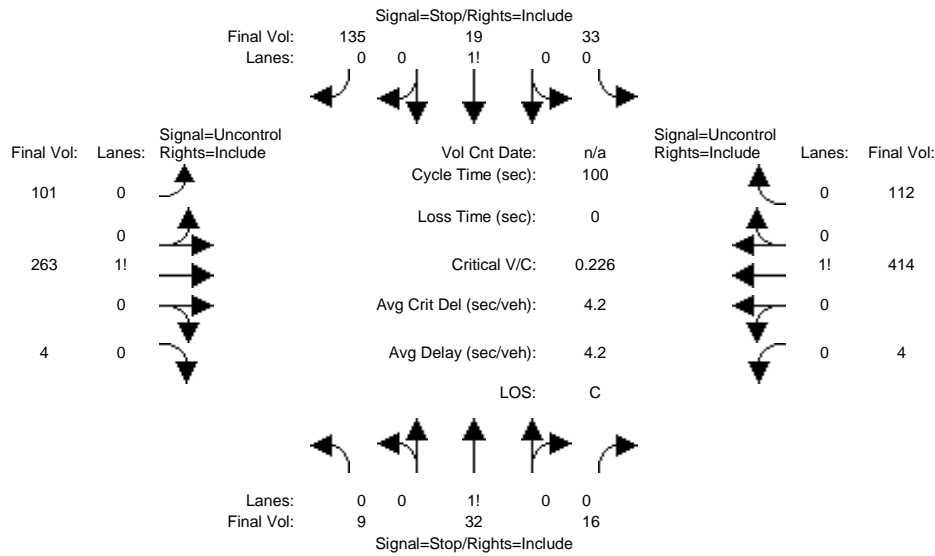
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing traffic movements and 12 rows representing volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume).

Table with 12 columns representing traffic movements and 3 rows representing critical gap and follow-up time metrics.

Table with 12 columns representing traffic movements and 4 rows representing capacity metrics (Conflict Vol, Potent Cap., Move Cap., Total Cap, Volume/Cap).

Table with 12 columns representing traffic movements and 4 rows representing level of service metrics (2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS).

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #15 Morse Ave & Maude Ave
\*\*\*\*\*
Future 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    | 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: | 9 32 16     | 33 19 135   | 101 263 4    | 4 414 112    |
| ApproachDel: | 15.7        | 15.8        | 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=57]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1142]  
 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=0.8]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=187]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1142]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 9 32 16     | 33 19 135   | 101 263 4    | 4 414 112    |

Major Street Volume: 898  
 Minor Approach Volume: 187  
 Minor Approach Volume Threshold: 248

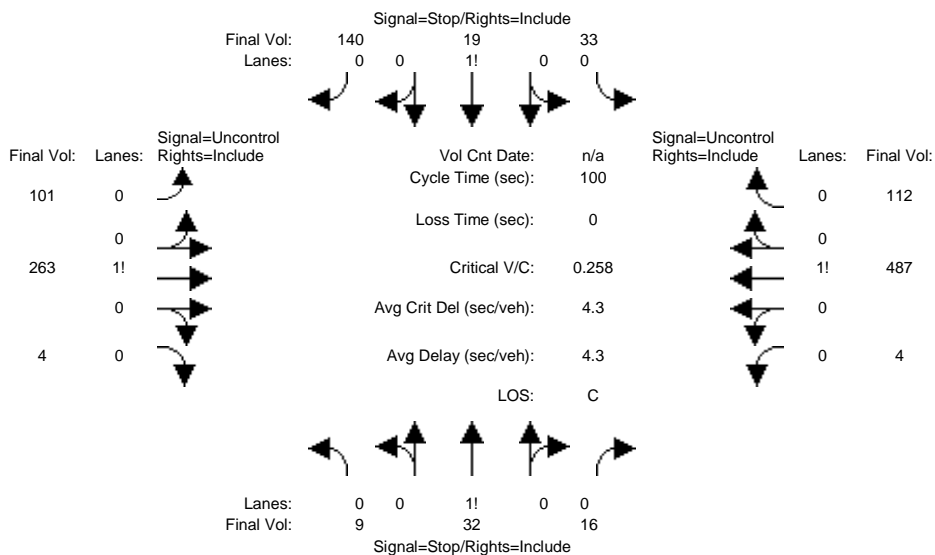
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Bkgd+P AM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

|               |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:     | 9    | 32   | 16   | 33   | 19   | 135  | 101  | 263  | 4    | 4    | 414  | 112  |
| Growth Adj:   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:  | 9    | 32   | 16   | 33   | 19   | 135  | 101  | 263  | 4    | 4    | 414  | 112  |
| Added Vol:    | 0    | 0    | 0    | 0    | 0    | 5    | 0    | 0    | 0    | 0    | 73   | 0    |
| PasserByVol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:  | 9    | 32   | 16   | 33   | 19   | 140  | 101  | 263  | 4    | 4    | 487  | 112  |
| User Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:   | 9    | 32   | 16   | 33   | 19   | 140  | 101  | 263  | 4    | 4    | 487  | 112  |
| Reduct Vol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Final Volume: | 9    | 32   | 16   | 33   | 19   | 140  | 101  | 263  | 4    | 4    | 487  | 112  |

Critical Gap Module:

|              |     |     |     |     |     |     |     |      |        |     |      |        |
|--------------|-----|-----|-----|-----|-----|-----|-----|------|--------|-----|------|--------|
| Critical Gp: | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxxx | 2.2 | xxxx | xxxxxx |

Capacity Module:

|              |      |      |        |      |      |        |      |      |        |      |      |        |
|--------------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|
| Cnflct Vol:  | 1098 | 1074 | 265    | 1042 | 1020 | 543    | 599  | xxxx | xxxxxx | 267  | xxxx | xxxxxx |
| Potent Cap.: | 192  | 222  | 779    | 210  | 239  | 544    | 988  | xxxx | xxxxxx | 1308 | xxxx | xxxxxx |
| Move Cap.:   | 122  | 197  | 779    | 165  | 212  | 544    | 988  | xxxx | xxxxxx | 1308 | xxxx | xxxxxx |
| Total Cap:   | 217  | 333  | xxxxxx | 359  | 388  | xxxxxx | xxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx |
| Volume/Cap:  | 0.04 | 0.10 | 0.02   | 0.09 | 0.05 | 0.26   | 0.10 | xxxx | xxxx   | 0.00 | xxxx | xxxx   |

Level Of Service Module:

|              |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:   | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        | 0.3           | xxxx          | xxxxxx        | 0.0           | xxxx          | xxxxxx        |
| Control Del: | xxxxx         | xxxx          | xxxxxx        | xxxxx         | xxxx          | xxxxxx        | 9.1           | xxxx          | xxxxxx        | 7.8           | xxxx          | xxxxxx        |
| LOS by Move: | *             | *             | *             | *             | *             | *             | A             | *             | *             | A             | *             | *             |
| Movement:    | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.: | xxxx          | 361           | xxxxxx        | xxxx          | 482           | xxxxxx        | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        |
| SharedQueue: | xxxxxx        | 0.6           | xxxxxx        | xxxxxx        | 1.9           | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        |
| Shrd ConDel: | xxxxxx        | 16.9          | xxxxxx        | xxxxxx        | 17.3          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        |
| Shared LOS:  | *             | C             | *             | *             | C             | *             | *             | *             | *             | *             | *             | *             |
| ApproachDel: |               | 16.9          |               |               | 17.3          |               | xxxxxxx       |               | xxxxxxx       |               |               |               |
| ApproachLOS: |               | C             |               |               | C             |               | *             |               | *             |               | *             |               |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #15 Morse Ave & Maude Ave

\*\*\*\*\*

Future 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    | 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: | 9 32 16     | 33 19 140   | 101 263 4    | 4 487 112    |
| ApproachDel: | 16.9        | 17.3        | 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=57]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1220]  
 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=0.9]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=192]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1220]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 9 32 16     | 33 19 140   | 101 263 4    | 4 487 112    |

Major Street Volume: 971  
 Minor Approach Volume: 192  
 Minor Approach Volume Threshold: 227

SIGNAL WARRANT DISCLAIMER

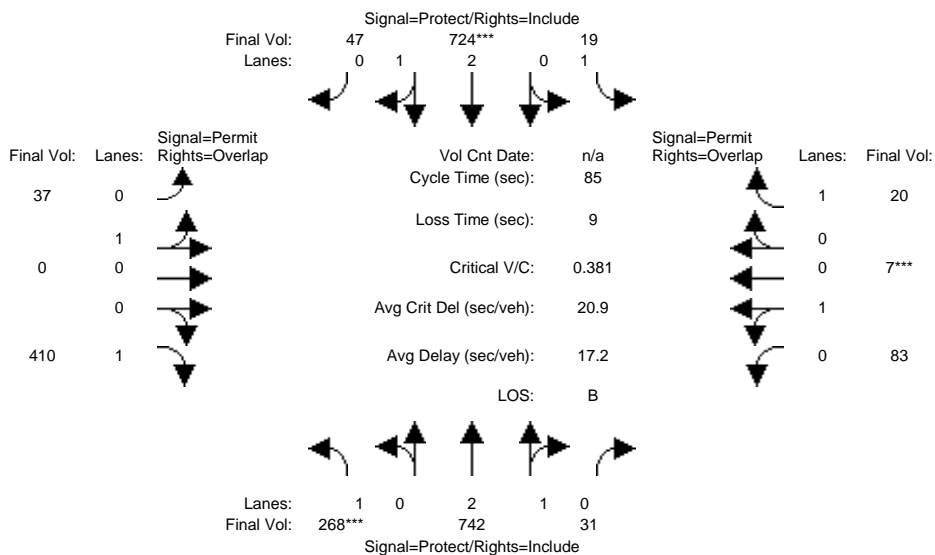
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 268  | 742  | 31   | 19   | 724  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 268  | 742  | 31   | 19   | 724  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 268  | 742  | 31   | 19   | 724  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 268  | 742  | 31   | 19   | 724  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 268  | 742  | 31   | 19   | 724  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 268  | 742  | 31   | 19   | 724  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |

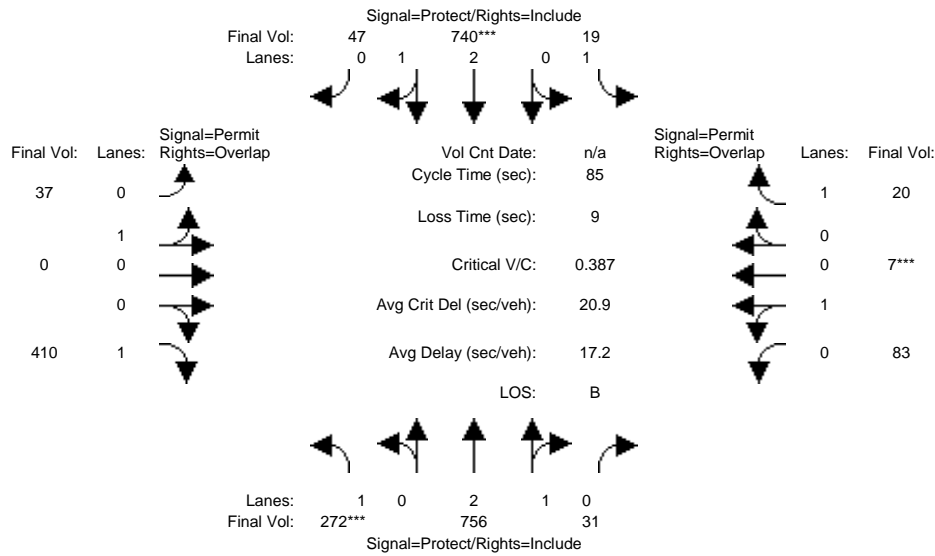
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.88 | 0.12 | 1.00 | 2.81 | 0.19 | 1.00 | 0.00 | 1.00 | 0.92 | 0.08 | 1.00 |
| Final Sat.:             | 1750 | 5375 | 225  | 1750 | 5258 | 341  | 1800 | 0    | 1750 | 1660 | 140  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.15 | 0.14 | 0.14 | 0.01 | 0.14 | 0.14 | 0.02 | 0.00 | 0.23 | 0.05 | 0.05 | 0.01 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 34.1 | 40.6 | 40.6 | 24.2 | 30.7 | 30.7 | 11.1 | 0.0  | 45.3 | 11.1 | 11.1 | 35.4 |
| Volume/Cap:               | 0.38 | 0.29 | 0.29 | 0.04 | 0.38 | 0.38 | 0.16 | 0.00 | 0.44 | 0.38 | 0.38 | 0.03 |
| Uniform Del:              | 18.0 | 13.4 | 13.4 | 22.0 | 20.1 | 20.1 | 32.8 | 0.0  | 12.1 | 33.8 | 33.8 | 14.6 |
| IncrcmntDel:              | 0.3  | 0.1  | 0.1  | 0.0  | 0.1  | 0.1  | 0.3  | 0.0  | 0.3  | 1.0  | 1.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 18.3 | 13.5 | 13.5 | 22.0 | 20.2 | 20.2 | 33.1 | 0.0  | 12.4 | 34.8 | 34.8 | 14.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 18.3 | 13.5 | 13.5 | 22.0 | 20.2 | 20.2 | 33.1 | 0.0  | 12.4 | 34.8 | 34.8 | 14.7 |
| LOS by Move:              | B-   | B    | B    | C+   | C+   | C+   | C-   | A    | B    | C-   | C-   | B    |
| HCM2kAvgQ:                | 5    | 4    | 4    | 0    | 5    | 5    | 1    | 0    | 7    | 3    | 3    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 268  | 742  | 31   | 19   | 724  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 268  | 742  | 31   | 19   | 724  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| Added Vol:     | 4    | 14   | 0    | 0    | 16   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 272  | 756  | 31   | 19   | 740  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 272  | 756  | 31   | 19   | 740  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 272  | 756  | 31   | 19   | 740  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 272  | 756  | 31   | 19   | 740  | 47   | 37   | 0    | 410  | 83   | 7    | 20   |

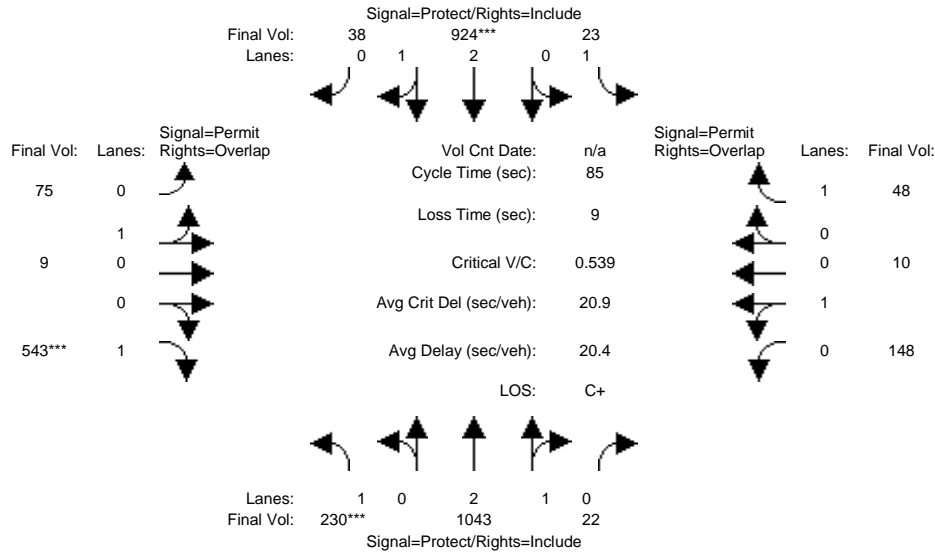
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.88 | 0.12 | 1.00 | 2.81 | 0.19 | 1.00 | 0.00 | 1.00 | 0.92 | 0.08 | 1.00 |
| Final Sat.:             | 1750 | 5379 | 221  | 1750 | 5265 | 334  | 1800 | 0    | 1750 | 1660 | 140  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.16 | 0.14 | 0.14 | 0.01 | 0.14 | 0.14 | 0.02 | 0.00 | 0.23 | 0.05 | 0.05 | 0.01 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 34.1 | 41.0 | 41.0 | 24.0 | 30.9 | 30.9 | 11.0 | 0.0  | 45.1 | 11.0 | 11.0 | 35.0 |
| Volume/Cap:               | 0.39 | 0.29 | 0.29 | 0.04 | 0.39 | 0.39 | 0.16 | 0.00 | 0.44 | 0.39 | 0.39 | 0.03 |
| Uniform Del:              | 18.0 | 13.3 | 13.3 | 22.1 | 20.1 | 20.1 | 32.9 | 0.0  | 12.2 | 33.9 | 33.9 | 14.9 |
| IncrcmntDel:              | 0.4  | 0.1  | 0.1  | 0.0  | 0.1  | 0.1  | 0.3  | 0.0  | 0.3  | 1.1  | 1.1  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 18.4 | 13.3 | 13.3 | 22.1 | 20.2 | 20.2 | 33.2 | 0.0  | 12.6 | 35.0 | 35.0 | 14.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 18.4 | 13.3 | 13.3 | 22.1 | 20.2 | 20.2 | 33.2 | 0.0  | 12.6 | 35.0 | 35.0 | 14.9 |
| LOS by Move:              | B-   | B    | B    | C+   | C+   | C+   | C-   | A    | B    | C-   | C-   | B    |
| HCM2kAvgQ:                | 5    | 4    | 4    | 0    | 5    | 5    | 1    | 0    | 7    | 3    | 3    | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd AM

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|----------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
| Base Vol:      | 230              | 1043 | 22   | 23               | 924  | 38   | 75             | 9    | 543  | 148            | 10   | 48   |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Initial Bse:   | 230              | 1043 | 22   | 23               | 924  | 38   | 75             | 9    | 543  | 148            | 10   | 48   |
| Added Vol:     | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| Initial Fut:   | 230              | 1043 | 22   | 23               | 924  | 38   | 75             | 9    | 543  | 148            | 10   | 48   |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| PHF Volume:    | 230              | 1043 | 22   | 23               | 924  | 38   | 75             | 9    | 543  | 148            | 10   | 48   |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| Reduced Vol:   | 230              | 1043 | 22   | 23               | 924  | 38   | 75             | 9    | 543  | 148            | 10   | 48   |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Final Volume:  | 230              | 1043 | 22   | 23               | 924  | 38   | 75             | 9    | 543  | 148            | 10   | 48   |

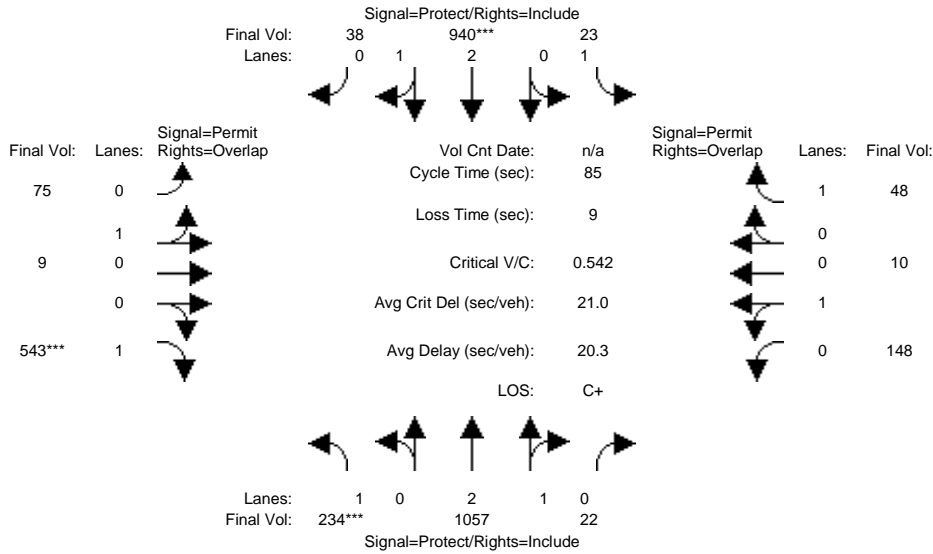
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900           | 1900 | 1900 | 1900           | 1900 | 1900 |
| Adjustment:             | 0.92             | 0.98 | 0.95 | 0.92             | 0.98 | 0.95 | 0.95           | 0.95 | 0.92 | 0.95           | 0.95 | 0.92 |
| Lanes:                  | 1.00             | 2.94 | 0.06 | 1.00             | 2.88 | 0.12 | 0.89           | 0.11 | 1.00 | 0.94           | 0.06 | 1.00 |
| Final Sat.:             | 1750             | 5484 | 116  | 1750             | 5379 | 221  | 1607           | 193  | 1750 | 1686           | 114  | 1750 |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|---------------------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
| Vol/Sat:                  | 0.13             | 0.19 | 0.19 | 0.01             | 0.17 | 0.17 | 0.05           | 0.05 | 0.31 | 0.09           | 0.09 | 0.03 |
| Crit Moves:               | ****             |      |      |                  | **** |      |                |      | **** |                |      |      |
| Green Time:               | 20.7             | 33.4 | 33.4 | 14.4             | 27.1 | 27.1 | 28.2           | 28.2 | 48.9 | 28.2           | 28.2 | 42.6 |
| Volume/Cap:               | 0.54             | 0.48 | 0.48 | 0.08             | 0.54 | 0.54 | 0.14           | 0.14 | 0.54 | 0.26           | 0.26 | 0.05 |
| Uniform Del:              | 28.0             | 19.4 | 19.4 | 29.7             | 23.8 | 23.8 | 19.9           | 19.9 | 11.1 | 20.8           | 20.8 | 10.9 |
| IncrcmntDel:              | 1.4              | 0.2  | 0.2  | 0.1              | 0.3  | 0.3  | 0.1            | 0.1  | 0.6  | 0.2            | 0.2  | 0.0  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0            | 0.0  | 0.0  | 0.0            | 0.0  | 0.0  |
| Delay Adj:                | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Delay/Veh:                | 29.4             | 19.5 | 19.5 | 29.8             | 24.2 | 24.2 | 20.0           | 20.0 | 11.7 | 21.0           | 21.0 | 10.9 |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| AdjDel/Veh:               | 29.4             | 19.5 | 19.5 | 29.8             | 24.2 | 24.2 | 20.0           | 20.0 | 11.7 | 21.0           | 21.0 | 10.9 |
| LOS by Move:              | C                | B-   | B-   | C                | C    | C    | C+             | C+   | B+   | C+             | C+   | B+   |
| HCM2kAvgQ:                | 6                | 7    | 7    | 1                | 7    | 7    | 2              | 2    | 10   | 3              | 3    | 1    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |             |      |      |             |      |      |            |      |      |            |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
|                | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
| Base Vol:      | 230         | 1043 | 22   | 23          | 924  | 38   | 75         | 9    | 543  | 148        | 10   | 48   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 230         | 1043 | 22   | 23          | 924  | 38   | 75         | 9    | 543  | 148        | 10   | 48   |
| Added Vol:     | 4           | 14   | 0    | 0           | 16   | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 234         | 1057 | 22   | 23          | 940  | 38   | 75         | 9    | 543  | 148        | 10   | 48   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 234         | 1057 | 22   | 23          | 940  | 38   | 75         | 9    | 543  | 148        | 10   | 48   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 234         | 1057 | 22   | 23          | 940  | 38   | 75         | 9    | 543  | 148        | 10   | 48   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 234         | 1057 | 22   | 23          | 940  | 38   | 75         | 9    | 543  | 148        | 10   | 48   |

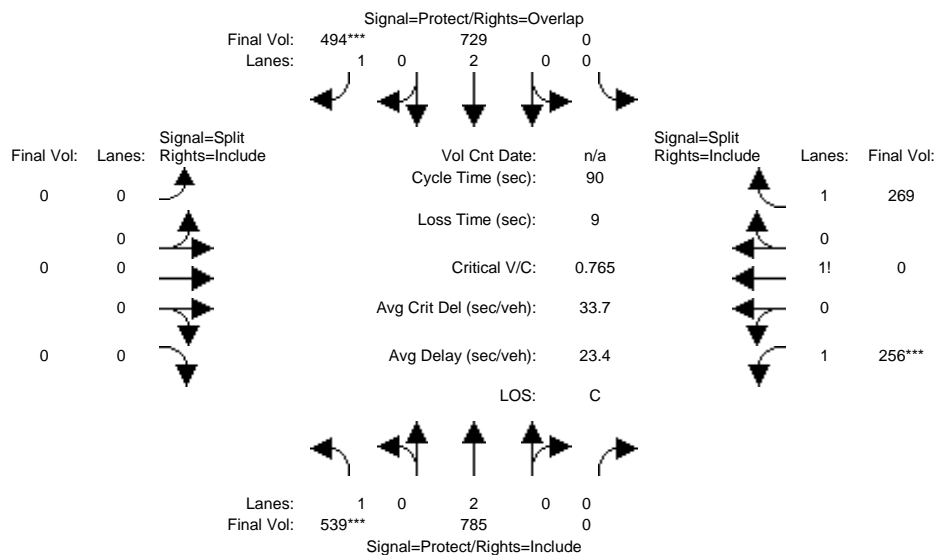
| Saturation Flow Module: |             |      |      |             |      |      |            |      |      |            |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
|                         | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 0.98 | 0.95 | 0.92        | 0.98 | 0.95 | 0.95       | 0.95 | 0.92 | 0.95       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 2.94 | 0.06 | 1.00        | 2.88 | 0.12 | 0.89       | 0.11 | 1.00 | 0.94       | 0.06 | 1.00 |
| Final Sat.:             | 1750        | 5486 | 114  | 1750        | 5382 | 218  | 1607       | 193  | 1750 | 1686       | 114  | 1750 |

| Capacity Analysis Module: |             |      |      |             |      |      |            |      |      |            |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
|                           | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
| Vol/Sat:                  | 0.13        | 0.19 | 0.19 | 0.01        | 0.17 | 0.17 | 0.05       | 0.05 | 0.31 | 0.09       | 0.09 | 0.03 |
| Crit Moves:               | ****        |      |      |             | **** |      |            |      | **** |            |      |      |
| Green Time:               | 21.0        | 33.9 | 33.9 | 14.5        | 27.4 | 27.4 | 27.7       | 27.7 | 48.6 | 27.7       | 27.7 | 42.1 |
| Volume/Cap:               | 0.54        | 0.48 | 0.48 | 0.08        | 0.54 | 0.54 | 0.14       | 0.14 | 0.54 | 0.27       | 0.27 | 0.06 |
| Uniform Del:              | 27.9        | 19.1 | 19.1 | 29.7        | 23.7 | 23.7 | 20.3       | 20.3 | 11.3 | 21.2       | 21.2 | 11.1 |
| IncrcmntDel:              | 1.4         | 0.2  | 0.2  | 0.1         | 0.3  | 0.3  | 0.1        | 0.1  | 0.6  | 0.2        | 0.2  | 0.0  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 29.3        | 19.2 | 19.2 | 29.8        | 24.0 | 24.0 | 20.4       | 20.4 | 11.9 | 21.4       | 21.4 | 11.1 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 29.3        | 19.2 | 19.2 | 29.8        | 24.0 | 24.0 | 20.4       | 20.4 | 11.9 | 21.4       | 21.4 | 11.1 |
| LOS by Move:              | C           | B-   | B-   | C           | C    | C    | C+         | C+   | B+   | C+         | C+   | B+   |
| HCM2kAvgQ:                | 6           | 7    | 7    | 1           | 8    | 8    | 2          | 2    | 10   | 3          | 3    | 1    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 539         | 785  | 0    | 0           | 729  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 539         | 785  | 0    | 0           | 729  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 539         | 785  | 0    | 0           | 729  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 539         | 785  | 0    | 0           | 729  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 539         | 785  | 0    | 0           | 729  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 539         | 785  | 0    | 0           | 729  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |

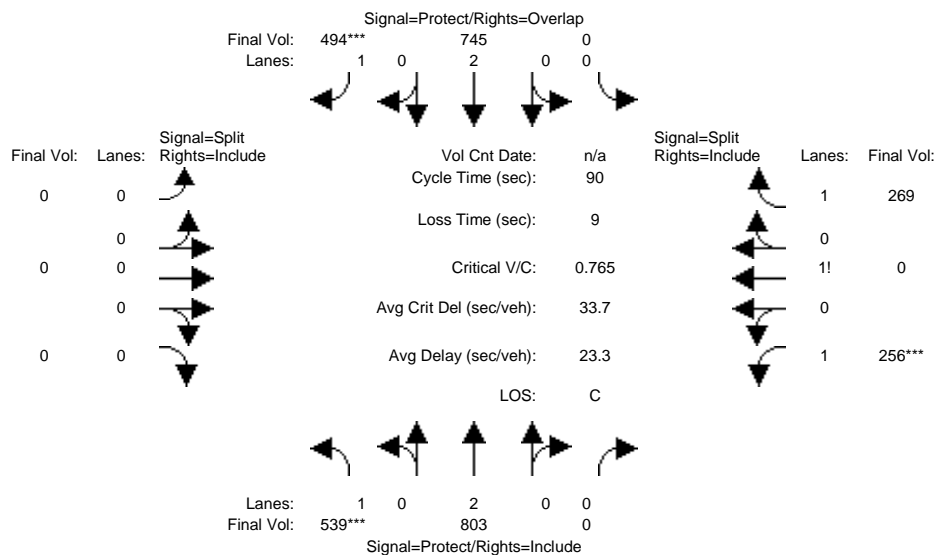
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.49       | 0.00 | 1.51 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 2603       | 0    | 2647 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.31        | 0.21 | 0.00 | 0.00        | 0.19 | 0.28 | 0.00       | 0.00 | 0.00 | 0.10       | 0.00 | 0.10 |
| Crit Moves:               | ****        |      |      |             | **** |      |            |      |      | ****       |      |      |
| Green Time:               | 36.1        | 69.1 | 0.0  | 0.0         | 33.0 | 33.0 | 0.0        | 0.0  | 0.0  | 11.9       | 0.0  | 11.9 |
| Volume/Cap:               | 0.77        | 0.27 | 0.00 | 0.00        | 0.52 | 0.77 | 0.00       | 0.00 | 0.00 | 0.74       | 0.00 | 0.77 |
| Uniform Del:              | 23.4        | 3.1  | 0.0  | 0.0         | 22.3 | 25.1 | 0.0        | 0.0  | 0.0  | 37.6       | 0.0  | 37.7 |
| IncrcmntDel:              | 5.2         | 0.0  | 0.0  | 0.0         | 0.4  | 5.6  | 0.0        | 0.0  | 0.0  | 4.3        | 0.0  | 5.3  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 0.00 | 1.00 |
| Delay/Veh:                | 28.5        | 3.1  | 0.0  | 0.0         | 22.7 | 30.7 | 0.0        | 0.0  | 0.0  | 41.9       | 0.0  | 43.0 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.5        | 3.1  | 0.0  | 0.0         | 22.7 | 30.7 | 0.0        | 0.0  | 0.0  | 41.9       | 0.0  | 43.0 |
| LOS by Move:              | C           | A    | A    | A           | C+   | C    | A          | A    | A    | D          | A    | D    |
| HCM2kAvgQ:                | 16          | 3    | 0    | 0           | 8    | 13   | 0          | 0    | 0    | 7          | 0    | 7    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 539         | 785  | 0    | 0           | 729  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 539         | 785  | 0    | 0           | 729  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| Added Vol:     | 0           | 18   | 0    | 0           | 16   | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 539         | 803  | 0    | 0           | 745  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 539         | 803  | 0    | 0           | 745  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 539         | 803  | 0    | 0           | 745  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 539         | 803  | 0    | 0           | 745  | 494  | 0          | 0    | 0    | 256        | 0    | 269  |

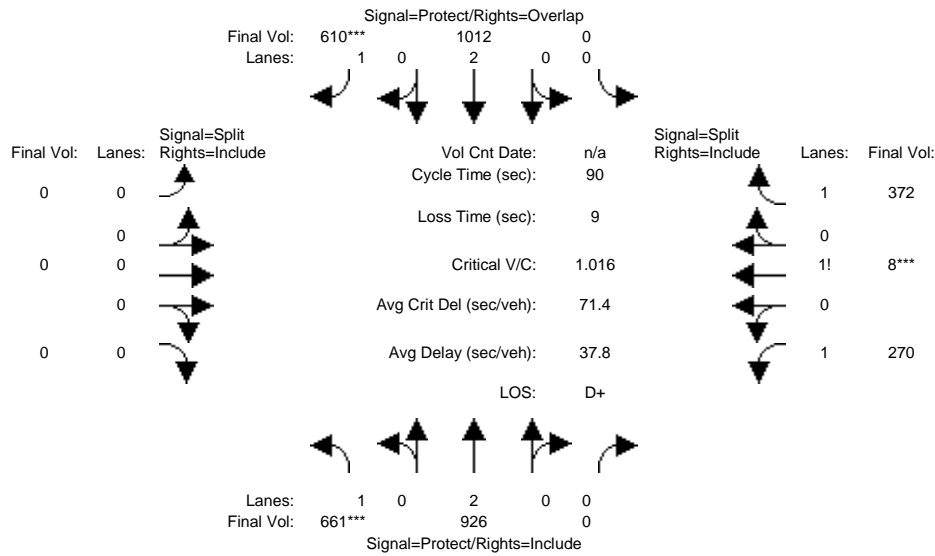
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.49       | 0.00 | 1.51 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 2603       | 0    | 2647 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.31        | 0.21 | 0.00 | 0.00        | 0.20 | 0.28 | 0.00       | 0.00 | 0.00 | 0.10       | 0.00 | 0.10 |
| Crit Moves:               | ****        |      |      |             | **** |      |            |      |      | ****       |      |      |
| Green Time:               | 36.1        | 69.1 | 0.0  | 0.0         | 33.0 | 33.0 | 0.0        | 0.0  | 0.0  | 11.9       | 0.0  | 11.9 |
| Volume/Cap:               | 0.77        | 0.28 | 0.00 | 0.00        | 0.53 | 0.77 | 0.00       | 0.00 | 0.00 | 0.74       | 0.00 | 0.77 |
| Uniform Del:              | 23.4        | 3.1  | 0.0  | 0.0         | 22.4 | 25.1 | 0.0        | 0.0  | 0.0  | 37.6       | 0.0  | 37.7 |
| IncrementDel:             | 5.2         | 0.1  | 0.0  | 0.0         | 0.4  | 5.6  | 0.0        | 0.0  | 0.0  | 4.3        | 0.0  | 5.3  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 0.00 | 1.00 |
| Delay/Veh:                | 28.5        | 3.1  | 0.0  | 0.0         | 22.8 | 30.7 | 0.0        | 0.0  | 0.0  | 41.9       | 0.0  | 43.0 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.5        | 3.1  | 0.0  | 0.0         | 22.8 | 30.7 | 0.0        | 0.0  | 0.0  | 41.9       | 0.0  | 43.0 |
| LOS by Move:              | C           | A    | A    | A           | C+   | C    | A          | A    | A    | D          | A    | D    |
| HCM2kAvgQ:                | 16          | 3    | 0    | 0           | 8    | 13   | 0          | 0    | 0    | 7          | 0    | 7    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd AM

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 661         | 926  | 0    | 0           | 1012 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 661         | 926  | 0    | 0           | 1012 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 661         | 926  | 0    | 0           | 1012 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 661         | 926  | 0    | 0           | 1012 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 661         | 926  | 0    | 0           | 1012 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 661         | 926  | 0    | 0           | 1012 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |

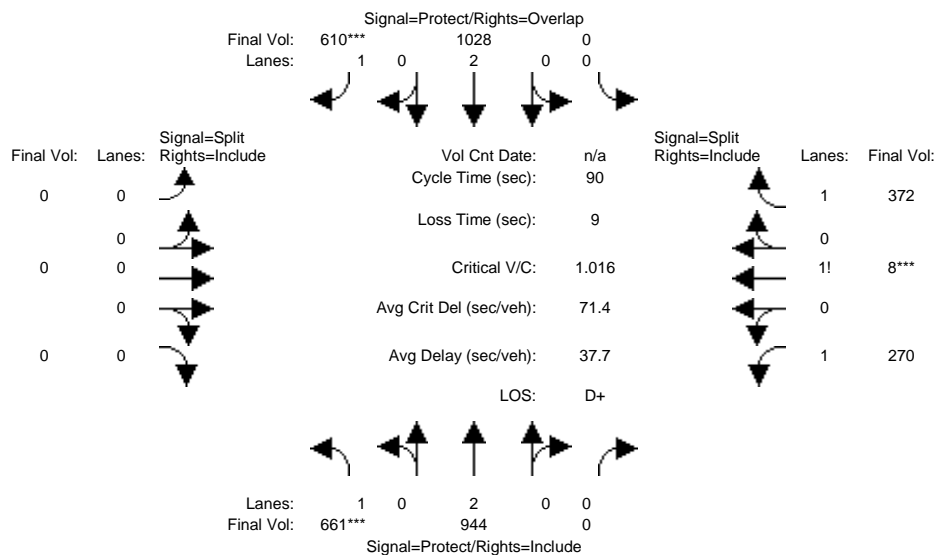
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.41       | 0.02 | 1.57 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 2468       | 43   | 2739 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.38        | 0.24 | 0.00 | 0.00        | 0.27 | 0.35 | 0.00       | 0.00 | 0.00 | 0.11       | 0.19 | 0.14 |
| Crit Moves:               | ****        |      |      |             |      | **** |            |      |      |            | **** |      |
| Green Time:               | 33.5        | 64.3 | 0.0  | 0.0         | 30.9 | 30.9 | 0.0        | 0.0  | 0.0  | 16.7       | 16.7 | 16.7 |
| Volume/Cap:               | 1.02        | 0.34 | 0.00 | 0.00        | 0.78 | 1.02 | 0.00       | 0.00 | 0.00 | 0.59       | 1.02 | 0.73 |
| Uniform Del:              | 28.3        | 4.8  | 0.0  | 0.0         | 26.5 | 29.6 | 0.0        | 0.0  | 0.0  | 33.6       | 36.7 | 34.6 |
| IncrcmntDel:              | 39.3        | 0.1  | 0.0  | 0.0         | 3.0  | 40.8 | 0.0        | 0.0  | 0.0  | 0.9        | 39.6 | 3.2  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 67.6        | 4.9  | 0.0  | 0.0         | 29.5 | 70.3 | 0.0        | 0.0  | 0.0  | 34.4       | 76.3 | 37.8 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 67.6        | 4.9  | 0.0  | 0.0         | 29.5 | 70.3 | 0.0        | 0.0  | 0.0  | 34.4       | 76.3 | 37.8 |
| LOS by Move:              | E           | A    | A    | A           | C    | E    | A          | A    | A    | C-         | E-   | D+   |
| HCM2kAvgQ:                | 28          | 5    | 0    | 0           | 13   | 23   | 0          | 0    | 0    | 6          | 16   | 8    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 661         | 926  | 0    | 0           | 1012 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 661         | 926  | 0    | 0           | 1012 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| Added Vol:     | 0           | 18   | 0    | 0           | 16   | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 661         | 944  | 0    | 0           | 1028 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 661         | 944  | 0    | 0           | 1028 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 661         | 944  | 0    | 0           | 1028 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 661         | 944  | 0    | 0           | 1028 | 610  | 0          | 0    | 0    | 270        | 8    | 372  |

| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.41       | 0.02 | 1.57 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 2468       | 43   | 2739 |

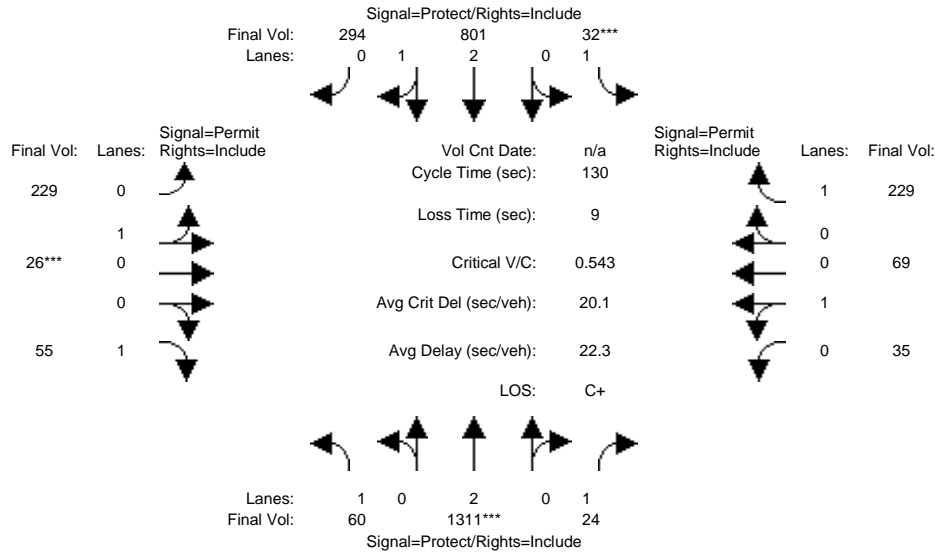
| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.38        | 0.25 | 0.00 | 0.00        | 0.27 | 0.35 | 0.00       | 0.00 | 0.00 | 0.11       | 0.19 | 0.14 |
| Crit Moves:               | ****        |      |      |             |      | **** |            |      |      |            | **** |      |
| Green Time:               | 33.5        | 64.3 | 0.0  | 0.0         | 30.9 | 30.9 | 0.0        | 0.0  | 0.0  | 16.7       | 16.7 | 16.7 |
| Volume/Cap:               | 1.02        | 0.35 | 0.00 | 0.00        | 0.79 | 1.02 | 0.00       | 0.00 | 0.00 | 0.59       | 1.02 | 0.73 |
| Uniform Del:              | 28.3        | 4.9  | 0.0  | 0.0         | 26.6 | 29.6 | 0.0        | 0.0  | 0.0  | 33.6       | 36.7 | 34.6 |
| IncrcmntDel:              | 39.3        | 0.1  | 0.0  | 0.0         | 3.3  | 40.8 | 0.0        | 0.0  | 0.0  | 0.9        | 39.6 | 3.2  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 67.6        | 4.9  | 0.0  | 0.0         | 29.9 | 70.3 | 0.0        | 0.0  | 0.0  | 34.4       | 76.3 | 37.8 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 67.6        | 4.9  | 0.0  | 0.0         | 29.9 | 70.3 | 0.0        | 0.0  | 0.0  | 34.4       | 76.3 | 37.8 |
| LOS by Move:              | E           | A    | A    | A           | C    | E    | A          | A    | A    | C-         | E-   | D+   |
| HCM2kAvgQ:                | 28          | 5    | 0    | 0           | 13   | 23   | 0          | 0    | 0    | 6          | 16   | 8    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 60   | 1311 | 24   | 32   | 801  | 294  | 229  | 26   | 55   | 35   | 69   | 229  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 60   | 1311 | 24   | 32   | 801  | 294  | 229  | 26   | 55   | 35   | 69   | 229  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 60   | 1311 | 24   | 32   | 801  | 294  | 229  | 26   | 55   | 35   | 69   | 229  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 60   | 1311 | 24   | 32   | 801  | 294  | 229  | 26   | 55   | 35   | 69   | 229  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 60   | 1311 | 24   | 32   | 801  | 294  | 229  | 26   | 55   | 35   | 69   | 229  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 60   | 1311 | 24   | 32   | 801  | 294  | 229  | 26   | 55   | 35   | 69   | 229  |

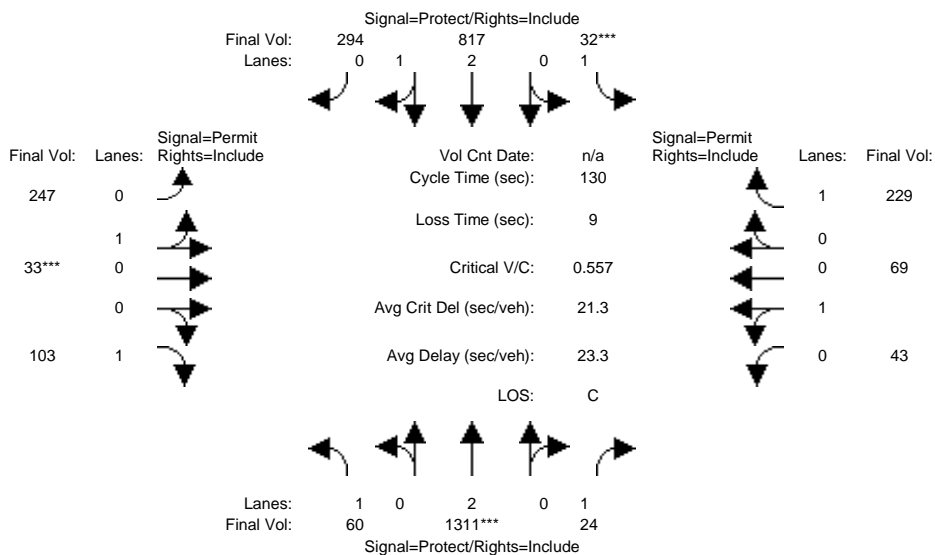
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.17 | 0.83 | 0.90 | 0.10 | 1.00 | 0.34 | 0.66 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 4094 | 1503 | 1616 | 184  | 1750 | 606  | 1194 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.34 | 0.01 | 0.02 | 0.20 | 0.20 | 0.14 | 0.14 | 0.03 | 0.06 | 0.06 | 0.13 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 19.0 | 80.8 | 80.8 | 7.0  | 68.9 | 68.9 | 33.2 | 33.2 | 33.2 | 33.2 | 33.2 | 33.2 |
| Volume/Cap:               | 0.24 | 0.55 | 0.02 | 0.34 | 0.37 | 0.37 | 0.55 | 0.55 | 0.12 | 0.23 | 0.23 | 0.51 |
| Uniform Del:              | 49.1 | 14.2 | 9.4  | 59.3 | 17.9 | 17.9 | 42.0 | 42.0 | 37.2 | 38.3 | 38.3 | 41.5 |
| IncrcmntDel:              | 0.5  | 0.3  | 0.0  | 2.1  | 0.1  | 0.1  | 1.5  | 1.5  | 0.1  | 0.3  | 0.3  | 1.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 49.6 | 14.5 | 9.4  | 61.4 | 18.0 | 18.0 | 43.5 | 43.5 | 37.3 | 38.5 | 38.5 | 42.5 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 49.6 | 14.5 | 9.4  | 61.4 | 18.0 | 18.0 | 43.5 | 43.5 | 37.3 | 38.5 | 38.5 | 42.5 |
| LOS by Move:              | D    | B    | A    | E    | B    | B    | D    | D    | D+   | D+   | D+   | D    |
| HCM2kAvgQ:                | 2    | 15   | 0    | 2    | 8    | 8    | 10   | 10   | 2    | 3    | 3    | 9    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 60   | 1311 | 24   | 32   | 801  | 294  | 229  | 26   | 55   | 35   | 69   | 229  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 60   | 1311 | 24   | 32   | 801  | 294  | 229  | 26   | 55   | 35   | 69   | 229  |
| Added Vol:     | 0    | 0    | 0    | 0    | 16   | 0    | 18   | 7    | 48   | 8    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 60   | 1311 | 24   | 32   | 817  | 294  | 247  | 33   | 103  | 43   | 69   | 229  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 60   | 1311 | 24   | 32   | 817  | 294  | 247  | 33   | 103  | 43   | 69   | 229  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 60   | 1311 | 24   | 32   | 817  | 294  | 247  | 33   | 103  | 43   | 69   | 229  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 60   | 1311 | 24   | 32   | 817  | 294  | 247  | 33   | 103  | 43   | 69   | 229  |

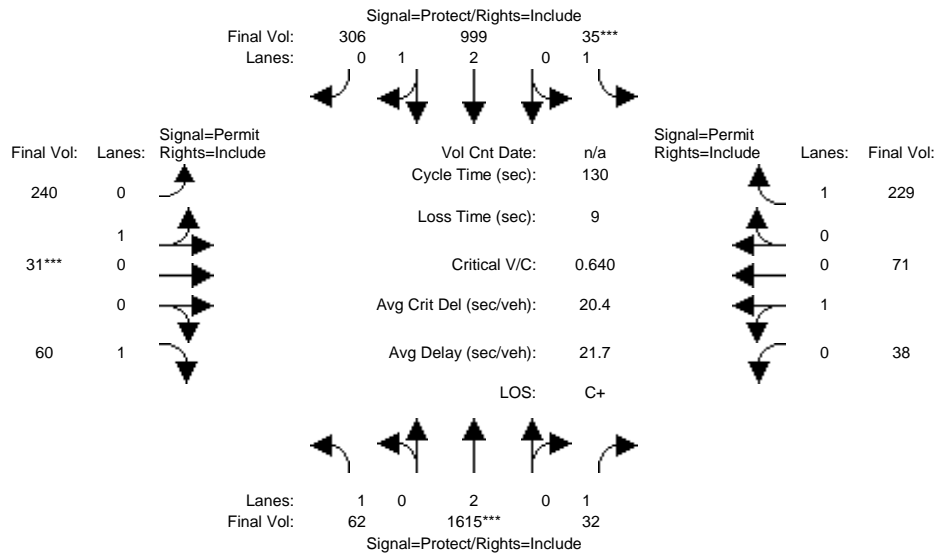
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.18 | 0.82 | 0.88 | 0.12 | 1.00 | 0.38 | 0.62 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 4116 | 1481 | 1588 | 212  | 1750 | 691  | 1109 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.34 | 0.01 | 0.02 | 0.20 | 0.20 | 0.16 | 0.16 | 0.06 | 0.06 | 0.06 | 0.13 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 18.3 | 78.6 | 78.6 | 7.0  | 67.3 | 67.3 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 |
| Volume/Cap:               | 0.24 | 0.57 | 0.02 | 0.34 | 0.38 | 0.38 | 0.57 | 0.57 | 0.22 | 0.23 | 0.23 | 0.48 |
| Uniform Del:              | 49.7 | 15.5 | 10.3 | 59.3 | 18.9 | 18.9 | 40.7 | 40.7 | 36.6 | 36.7 | 36.7 | 39.6 |
| IncrcmntDel:              | 0.5  | 0.3  | 0.0  | 2.1  | 0.1  | 0.1  | 1.6  | 1.6  | 0.2  | 0.2  | 0.2  | 0.8  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 50.2 | 15.9 | 10.3 | 61.4 | 18.9 | 18.9 | 42.3 | 42.3 | 36.8 | 36.9 | 36.9 | 40.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 50.2 | 15.9 | 10.3 | 61.4 | 18.9 | 18.9 | 42.3 | 42.3 | 36.8 | 36.9 | 36.9 | 40.3 |
| LOS by Move:              | D    | B    | B+   | E    | B-   | B-   | D    | D    | D+   | D+   | D+   | D    |
| HCM2kAvgQ:                | 2    | 15   | 0    | 2    | 9    | 9    | 10   | 10   | 3    | 4    | 4    | 8    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd AM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 62   | 1615 | 32   | 35   | 999  | 306  | 240  | 31   | 60   | 38   | 71   | 229  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 62   | 1615 | 32   | 35   | 999  | 306  | 240  | 31   | 60   | 38   | 71   | 229  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 62   | 1615 | 32   | 35   | 999  | 306  | 240  | 31   | 60   | 38   | 71   | 229  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 62   | 1615 | 32   | 35   | 999  | 306  | 240  | 31   | 60   | 38   | 71   | 229  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 62   | 1615 | 32   | 35   | 999  | 306  | 240  | 31   | 60   | 38   | 71   | 229  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 62   | 1615 | 32   | 35   | 999  | 306  | 240  | 31   | 60   | 38   | 71   | 229  |

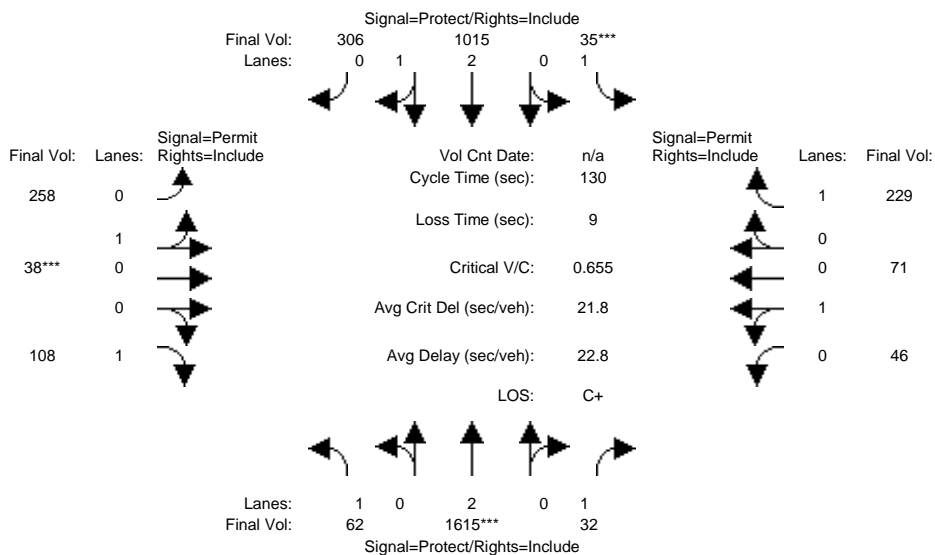
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.27 | 0.73 | 0.89 | 0.11 | 1.00 | 0.35 | 0.65 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 4285 | 1313 | 1594 | 206  | 1750 | 628  | 1172 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.43 | 0.02 | 0.02 | 0.23 | 0.23 | 0.15 | 0.15 | 0.03 | 0.06 | 0.06 | 0.13 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 17.1 | 84.2 | 84.2 | 7.0  | 74.1 | 74.1 | 29.8 | 29.8 | 29.8 | 29.8 | 29.8 | 29.8 |
| Volume/Cap:               | 0.27 | 0.66 | 0.03 | 0.37 | 0.41 | 0.41 | 0.66 | 0.66 | 0.15 | 0.26 | 0.26 | 0.57 |
| Uniform Del:              | 50.8 | 14.0 | 8.2  | 59.4 | 15.7 | 15.7 | 45.4 | 45.4 | 40.0 | 41.1 | 41.1 | 44.4 |
| IncrcmntDel:              | 0.6  | 0.7  | 0.0  | 2.5  | 0.1  | 0.1  | 3.8  | 3.8  | 0.2  | 0.3  | 0.3  | 2.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 51.5 | 14.7 | 8.2  | 61.8 | 15.8 | 15.8 | 49.3 | 49.3 | 40.1 | 41.4 | 41.4 | 46.4 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 51.5 | 14.7 | 8.2  | 61.8 | 15.8 | 15.8 | 49.3 | 49.3 | 40.1 | 41.4 | 41.4 | 46.4 |
| LOS by Move:              | D-   | B    | A    | E    | B    | B    | D    | D    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 2    | 19   | 0    | 2    | 10   | 10   | 11   | 11   | 2    | 4    | 4    | 9    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 62   | 1615 | 32   | 35   | 999  | 306  | 240  | 31   | 60   | 38   | 71   | 229  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 62   | 1615 | 32   | 35   | 999  | 306  | 240  | 31   | 60   | 38   | 71   | 229  |
| Added Vol:     | 0    | 0    | 0    | 0    | 16   | 0    | 18   | 7    | 48   | 8    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 62   | 1615 | 32   | 35   | 1015 | 306  | 258  | 38   | 108  | 46   | 71   | 229  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 62   | 1615 | 32   | 35   | 1015 | 306  | 258  | 38   | 108  | 46   | 71   | 229  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 62   | 1615 | 32   | 35   | 1015 | 306  | 258  | 38   | 108  | 46   | 71   | 229  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 62   | 1615 | 32   | 35   | 1015 | 306  | 258  | 38   | 108  | 46   | 71   | 229  |

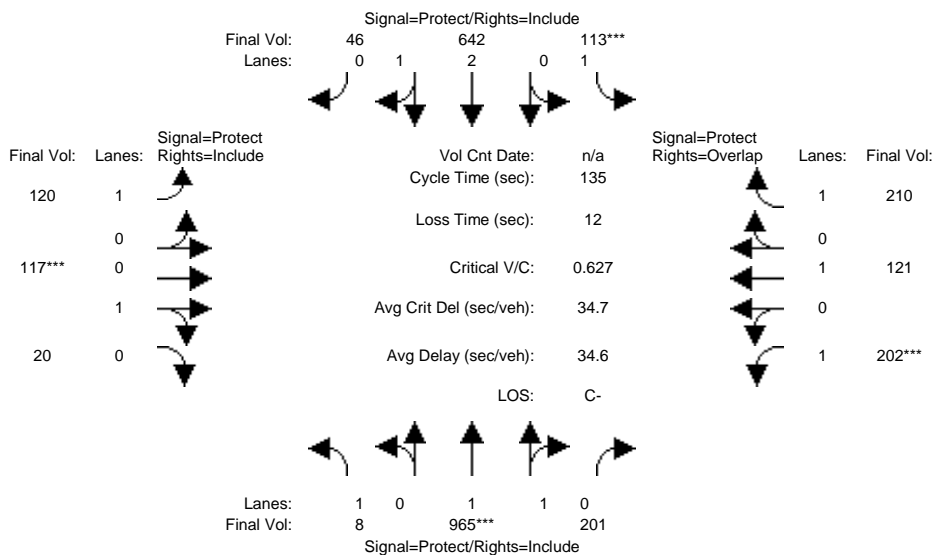
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.28 | 0.72 | 0.87 | 0.13 | 1.00 | 0.39 | 0.61 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 4301 | 1297 | 1569 | 231  | 1750 | 708  | 1092 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.43 | 0.02 | 0.02 | 0.24 | 0.24 | 0.16 | 0.16 | 0.06 | 0.07 | 0.07 | 0.13 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 16.6 | 82.2 | 82.2 | 7.0  | 72.6 | 72.6 | 31.8 | 31.8 | 31.8 | 31.8 | 31.8 | 31.8 |
| Volume/Cap:               | 0.28 | 0.67 | 0.03 | 0.37 | 0.42 | 0.42 | 0.67 | 0.67 | 0.25 | 0.27 | 0.27 | 0.53 |
| Uniform Del:              | 51.3 | 15.3 | 9.0  | 59.4 | 16.6 | 16.6 | 44.4 | 44.4 | 39.5 | 39.7 | 39.7 | 42.7 |
| IncrcmntDel:              | 0.7  | 0.8  | 0.0  | 2.5  | 0.1  | 0.1  | 4.0  | 4.0  | 0.3  | 0.3  | 0.3  | 1.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 52.0 | 16.0 | 9.0  | 61.8 | 16.7 | 16.7 | 48.4 | 48.4 | 39.8 | 40.0 | 40.0 | 44.0 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 52.0 | 16.0 | 9.0  | 61.8 | 16.7 | 16.7 | 48.4 | 48.4 | 39.8 | 40.0 | 40.0 | 44.0 |
| LOS by Move:              | D-   | B    | A    | E    | B    | B    | D    | D    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 2    | 20   | 0    | 2    | 10   | 10   | 12   | 12   | 4    | 4    | 4    | 9    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 8    | 965  | 201  | 113  | 642  | 46   | 120  | 117  | 20   | 202  | 121  | 210  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 8    | 965  | 201  | 113  | 642  | 46   | 120  | 117  | 20   | 202  | 121  | 210  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 8    | 965  | 201  | 113  | 642  | 46   | 120  | 117  | 20   | 202  | 121  | 210  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 8    | 965  | 201  | 113  | 642  | 46   | 120  | 117  | 20   | 202  | 121  | 210  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 8    | 965  | 201  | 113  | 642  | 46   | 120  | 117  | 20   | 202  | 121  | 210  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 8    | 965  | 201  | 113  | 642  | 46   | 120  | 117  | 20   | 202  | 121  | 210  |

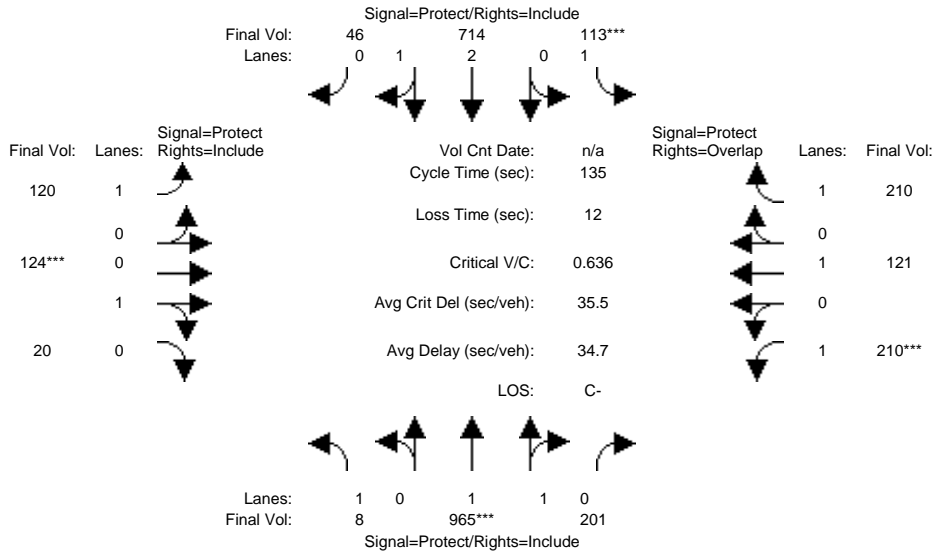
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.65 | 0.35 | 1.00 | 2.79 | 0.21 | 1.00 | 0.85 | 0.15 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 3062 | 638  | 1750 | 5225 | 374  | 1750 | 1537 | 263  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.32 | 0.32 | 0.06 | 0.12 | 0.12 | 0.07 | 0.08 | 0.08 | 0.12 | 0.06 | 0.12 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 24.3 | 67.9 | 67.9 | 13.9 | 57.5 | 57.5 | 19.8 | 16.4 | 16.4 | 24.9 | 21.4 | 35.3 |
| Volume/Cap:               | 0.03 | 0.63 | 0.63 | 0.63 | 0.29 | 0.29 | 0.47 | 0.63 | 0.63 | 0.63 | 0.40 | 0.46 |
| Uniform Del:              | 45.6 | 24.4 | 24.4 | 58.1 | 25.4 | 25.4 | 52.7 | 56.4 | 56.4 | 50.8 | 51.0 | 41.8 |
| IncrcmntDel:              | 0.0  | 0.7  | 0.7  | 6.8  | 0.1  | 0.1  | 1.3  | 5.7  | 5.7  | 3.9  | 0.9  | 0.7  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 45.7 | 25.1 | 25.1 | 64.9 | 25.4 | 25.4 | 54.1 | 62.1 | 62.1 | 54.7 | 51.9 | 42.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 45.7 | 25.1 | 25.1 | 64.9 | 25.4 | 25.4 | 54.1 | 62.1 | 62.1 | 54.7 | 51.9 | 42.6 |
| LOS by Move:              | D    | C    | C    | E    | C    | C    | D-   | E    | E    | D-   | D-   | D    |
| HCM2kAvgQ:                | 0    | 18   | 18   | 5    | 6    | 6    | 5    | 7    | 7    | 9    | 5    | 8    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 8    | 965  | 201  | 113  | 642  | 46   | 120  | 117  | 20   | 202  | 121  | 210  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 8    | 965  | 201  | 113  | 642  | 46   | 120  | 117  | 20   | 202  | 121  | 210  |
| Added Vol:     | 0    | 0    | 0    | 0    | 72   | 0    | 0    | 7    | 0    | 8    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 8    | 965  | 201  | 113  | 714  | 46   | 120  | 124  | 20   | 210  | 121  | 210  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 8    | 965  | 201  | 113  | 714  | 46   | 120  | 124  | 20   | 210  | 121  | 210  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 8    | 965  | 201  | 113  | 714  | 46   | 120  | 124  | 20   | 210  | 121  | 210  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 8    | 965  | 201  | 113  | 714  | 46   | 120  | 124  | 20   | 210  | 121  | 210  |

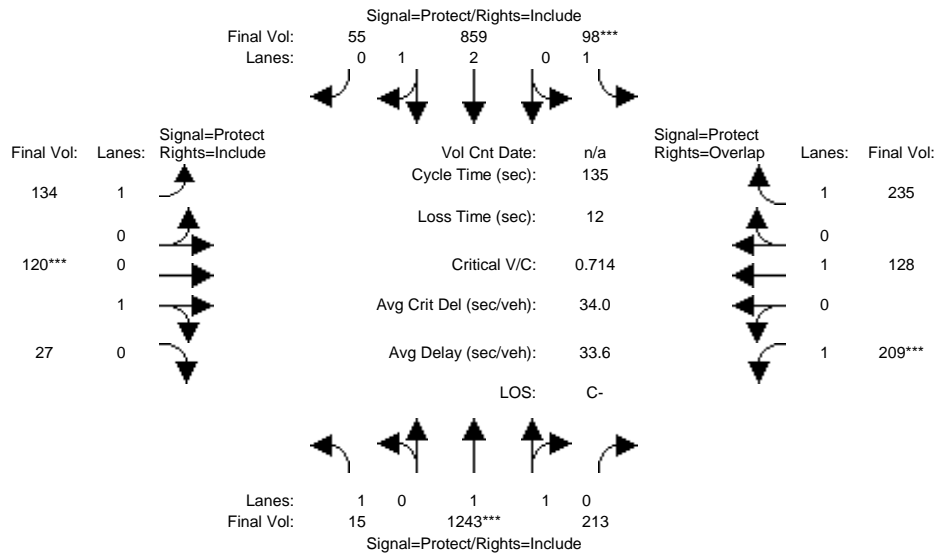
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.65 | 0.35 | 1.00 | 2.81 | 0.19 | 1.00 | 0.86 | 0.14 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 3062 | 638  | 1750 | 5261 | 339  | 1750 | 1550 | 250  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.32 | 0.32 | 0.06 | 0.14 | 0.14 | 0.07 | 0.08 | 0.08 | 0.12 | 0.06 | 0.12 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 22.3 | 66.9 | 66.9 | 13.7 | 58.3 | 58.3 | 20.4 | 17.0 | 17.0 | 25.5 | 22.0 | 35.7 |
| Volume/Cap:               | 0.03 | 0.64 | 0.64 | 0.64 | 0.31 | 0.31 | 0.45 | 0.64 | 0.64 | 0.64 | 0.39 | 0.45 |
| Uniform Del:              | 47.3 | 25.1 | 25.1 | 58.3 | 25.2 | 25.2 | 52.2 | 56.1 | 56.1 | 50.5 | 50.5 | 41.5 |
| IncrcmntDel:              | 0.0  | 0.7  | 0.7  | 7.4  | 0.1  | 0.1  | 1.2  | 5.9  | 5.9  | 4.1  | 0.8  | 0.7  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 47.3 | 25.9 | 25.9 | 65.7 | 25.3 | 25.3 | 53.5 | 62.0 | 62.0 | 54.6 | 51.3 | 42.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 47.3 | 25.9 | 25.9 | 65.7 | 25.3 | 25.3 | 53.5 | 62.0 | 62.0 | 54.6 | 51.3 | 42.2 |
| LOS by Move:              | D    | C    | C    | E    | C    | C    | D-   | E    | E    | D-   | D-   | D    |
| HCM2kAvgQ:                | 0    | 18   | 18   | 5    | 7    | 7    | 5    | 7    | 7    | 9    | 5    | 8    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 15   | 1243 | 213  | 98   | 859  | 55   | 134  | 120  | 27   | 209  | 128  | 235  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 15   | 1243 | 213  | 98   | 859  | 55   | 134  | 120  | 27   | 209  | 128  | 235  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 15   | 1243 | 213  | 98   | 859  | 55   | 134  | 120  | 27   | 209  | 128  | 235  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 15   | 1243 | 213  | 98   | 859  | 55   | 134  | 120  | 27   | 209  | 128  | 235  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 15   | 1243 | 213  | 98   | 859  | 55   | 134  | 120  | 27   | 209  | 128  | 235  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 15   | 1243 | 213  | 98   | 859  | 55   | 134  | 120  | 27   | 209  | 128  | 235  |

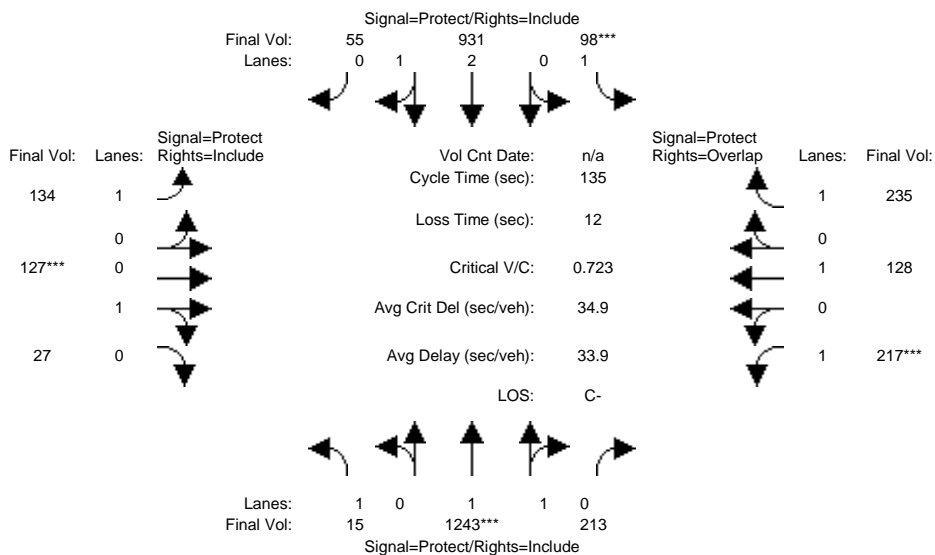
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.70 | 0.30 | 1.00 | 2.81 | 0.19 | 1.00 | 0.82 | 0.18 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 3158 | 541  | 1750 | 5263 | 337  | 1750 | 1469 | 331  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.39 | 0.39 | 0.06 | 0.16 | 0.16 | 0.08 | 0.08 | 0.08 | 0.12 | 0.07 | 0.13 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 20.5 | 74.4 | 74.4 | 10.6 | 64.5 | 64.5 | 18.8 | 15.4 | 15.4 | 22.6 | 19.2 | 29.8 |
| Volume/Cap:               | 0.06 | 0.71 | 0.71 | 0.71 | 0.34 | 0.34 | 0.55 | 0.71 | 0.71 | 0.71 | 0.47 | 0.61 |
| Uniform Del:              | 49.0 | 22.4 | 22.4 | 60.7 | 22.0 | 22.0 | 54.2 | 57.7 | 57.7 | 53.2 | 53.2 | 47.3 |
| IncrcmntDel:              | 0.1  | 1.2  | 1.2  | 16.3 | 0.1  | 0.1  | 2.7  | 11.2 | 11.2 | 8.1  | 1.3  | 2.8  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 49.1 | 23.7 | 23.7 | 77.0 | 22.1 | 22.1 | 56.8 | 68.9 | 68.9 | 61.3 | 54.5 | 50.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 49.1 | 23.7 | 23.7 | 77.0 | 22.1 | 22.1 | 56.8 | 68.9 | 68.9 | 61.3 | 54.5 | 50.1 |
| LOS by Move:              | D    | C    | C    | E-   | C+   | C+   | E+   | E    | E    | E    | D-   | D    |
| HCM2kAvgQ:                | 1    | 23   | 23   | 4    | 8    | 8    | 6    | 8    | 8    | 10   | 5    | 10   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 15   | 1243 | 213  | 98   | 859  | 55   | 134  | 120  | 27   | 209  | 128  | 235  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 15   | 1243 | 213  | 98   | 859  | 55   | 134  | 120  | 27   | 209  | 128  | 235  |
| Added Vol:     | 0    | 0    | 0    | 0    | 72   | 0    | 0    | 7    | 0    | 8    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 15   | 1243 | 213  | 98   | 931  | 55   | 134  | 127  | 27   | 217  | 128  | 235  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 15   | 1243 | 213  | 98   | 931  | 55   | 134  | 127  | 27   | 217  | 128  | 235  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 15   | 1243 | 213  | 98   | 931  | 55   | 134  | 127  | 27   | 217  | 128  | 235  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 15   | 1243 | 213  | 98   | 931  | 55   | 134  | 127  | 27   | 217  | 128  | 235  |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.70 | 0.30 | 1.00 | 2.83 | 0.17 | 1.00 | 0.82 | 0.18 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 3158 | 541  | 1750 | 5287 | 312  | 1750 | 1484 | 316  | 1750 | 1900 | 1750 |

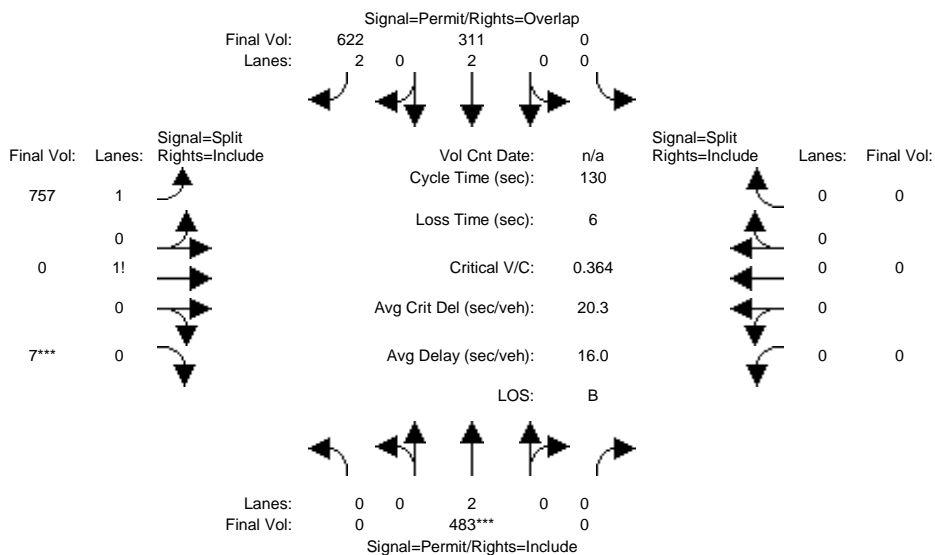
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.39 | 0.39 | 0.06 | 0.18 | 0.18 | 0.08 | 0.09 | 0.09 | 0.12 | 0.07 | 0.13 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 19.1 | 73.4 | 73.4 | 10.5 | 64.8 | 64.8 | 19.3 | 16.0 | 16.0 | 23.1 | 19.8 | 30.2 |
| Volume/Cap:               | 0.06 | 0.72 | 0.72 | 0.72 | 0.37 | 0.37 | 0.53 | 0.72 | 0.72 | 0.72 | 0.46 | 0.60 |
| Uniform Del:              | 50.2 | 23.1 | 23.1 | 60.9 | 22.1 | 22.1 | 53.7 | 57.4 | 57.4 | 52.9 | 52.7 | 47.0 |
| IncrcmntDel:              | 0.1  | 1.3  | 1.3  | 17.5 | 0.1  | 0.1  | 2.2  | 11.6 | 11.6 | 8.4  | 1.2  | 2.6  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 50.3 | 24.5 | 24.5 | 78.3 | 22.2 | 22.2 | 55.9 | 69.0 | 69.0 | 61.3 | 53.9 | 49.5 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 50.3 | 24.5 | 24.5 | 78.3 | 22.2 | 22.2 | 55.9 | 69.0 | 69.0 | 61.3 | 53.9 | 49.5 |
| LOS by Move:              | D    | C    | C    | E-   | C+   | C+   | E+   | E    | E    | E    | D-   | D    |
| HCM2kAvgQ:                | 1    | 23   | 23   | 4    | 8    | 8    | 6    | 8    | 8    | 11   | 5    | 10   |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 483  | 0    | 0    | 311  | 622  | 757  | 0    | 7    | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 483  | 0    | 0    | 311  | 622  | 757  | 0    | 7    | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 483  | 0    | 0    | 311  | 622  | 757  | 0    | 7    | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 483  | 0    | 0    | 311  | 622  | 757  | 0    | 7    | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 483  | 0    | 0    | 311  | 622  | 757  | 0    | 7    | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 483  | 0    | 0    | 311  | 622  | 757  | 0    | 7    | 0    | 0    | 0    |

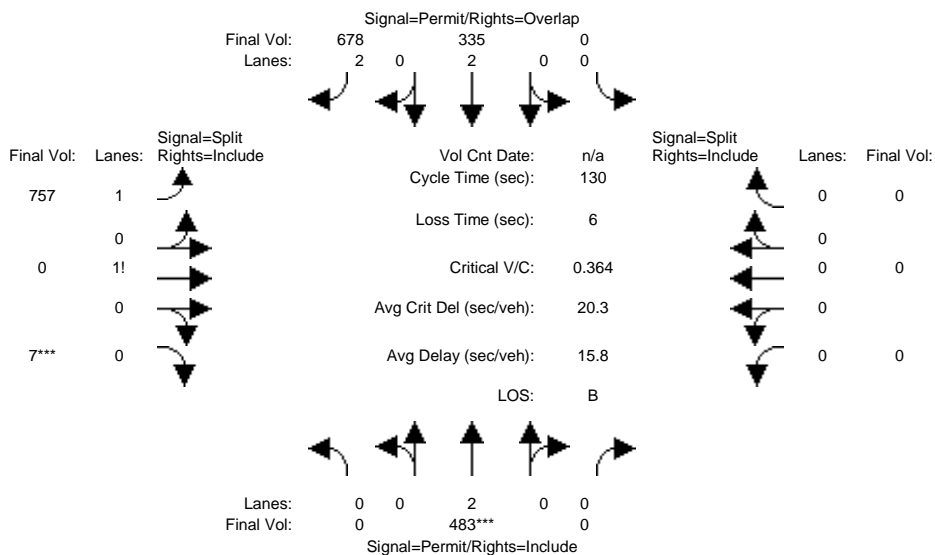
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 1.98 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 3800 | 0    | 0    | 3800 | 3150 | 3468 | 0    | 32   | 0    | 0    | 0    |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.13 | 0.00 | 0.00 | 0.08 | 0.20  | 0.22 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               | **** |      |      |      |      |       | **** |      |      |      |      |      |
| Green Time:               | 0.0  | 45.4 | 0.0  | 0.0  | 45.4 | 124.0 | 78.6 | 0.0  | 78.6 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.36 | 0.00 | 0.00 | 0.23 | 0.21  | 0.36 | 0.00 | 0.36 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 31.6 | 0.0  | 0.0  | 30.0 | 0.2   | 13.0 | 0.0  | 13.0 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.2  | 0.0  | 0.0  | 0.1  | 0.0   | 0.1  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 31.7 | 0.0  | 0.0  | 30.1 | 0.2   | 13.1 | 0.0  | 13.1 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 31.7 | 0.0  | 0.0  | 30.1 | 0.2   | 13.1 | 0.0  | 13.1 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | C    | A    | A    | C    | A     | B    | A    | B    | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 7    | 0    | 0    | 4    | 1     | 8    | 0    | 8    | 0    | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 0           | 483  | 0    | 0           | 311  | 622  | 757        | 0    | 7    | 0          | 0    | 0    |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 0           | 483  | 0    | 0           | 311  | 622  | 757        | 0    | 7    | 0          | 0    | 0    |
| Added Vol:     | 0           | 0    | 0    | 0           | 24   | 56   | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 0           | 483  | 0    | 0           | 335  | 678  | 757        | 0    | 7    | 0          | 0    | 0    |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 0           | 483  | 0    | 0           | 335  | 678  | 757        | 0    | 7    | 0          | 0    | 0    |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 0           | 483  | 0    | 0           | 335  | 678  | 757        | 0    | 7    | 0          | 0    | 0    |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 0           | 483  | 0    | 0           | 335  | 678  | 757        | 0    | 7    | 0          | 0    | 0    |

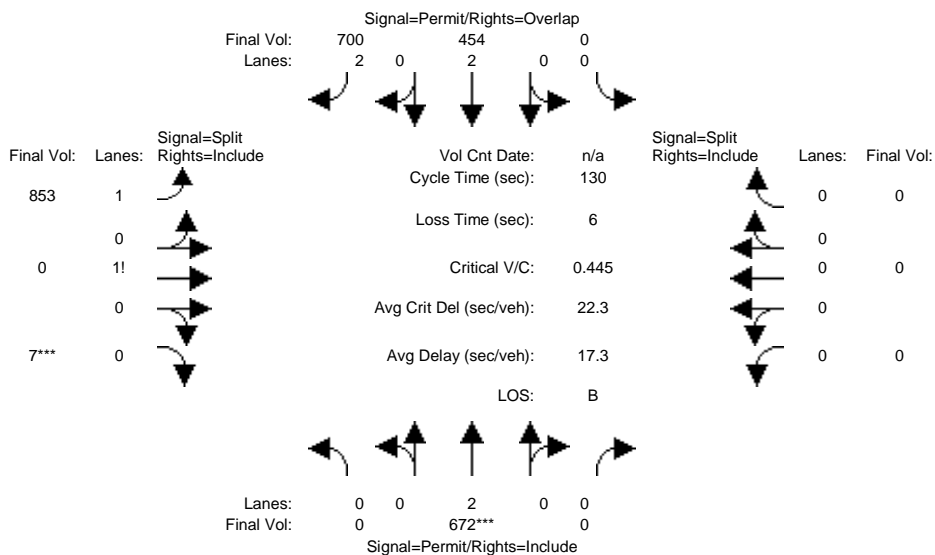
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.83 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 0.00        | 2.00 | 0.00 | 0.00        | 2.00 | 2.00 | 1.98       | 0.00 | 0.02 | 0.00       | 0.00 | 0.00 |
| Final Sat.:             | 0           | 3800 | 0    | 0           | 3800 | 3150 | 3468       | 0    | 32   | 0          | 0    | 0    |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |       | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|-------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.00        | 0.13 | 0.00 | 0.00        | 0.09 | 0.22  | 0.22       | 0.00 | 0.22 | 0.00       | 0.00 | 0.00 |
| Crit Moves:               | ****        |      |      | ****        |      |       | ****       |      |      | ****       |      |      |
| Green Time:               | 0.0         | 45.4 | 0.0  | 0.0         | 45.4 | 124.0 | 78.6       | 0.0  | 78.6 | 0.0        | 0.0  | 0.0  |
| Volume/Cap:               | 0.00        | 0.36 | 0.00 | 0.00        | 0.25 | 0.23  | 0.36       | 0.00 | 0.36 | 0.00       | 0.00 | 0.00 |
| Uniform Del:              | 0.0         | 31.6 | 0.0  | 0.0         | 30.2 | 0.2   | 13.0       | 0.0  | 13.0 | 0.0        | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0         | 0.2  | 0.0  | 0.0         | 0.1  | 0.0   | 0.1        | 0.0  | 0.1  | 0.0        | 0.0  | 0.0  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0   | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 0.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00  | 1.00       | 0.00 | 1.00 | 0.00       | 0.00 | 0.00 |
| Delay/Veh:                | 0.0         | 31.7 | 0.0  | 0.0         | 30.3 | 0.2   | 13.1       | 0.0  | 13.1 | 0.0        | 0.0  | 0.0  |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0         | 31.7 | 0.0  | 0.0         | 30.3 | 0.2   | 13.1       | 0.0  | 13.1 | 0.0        | 0.0  | 0.0  |
| LOS by Move:              | A           | C    | A    | A           | C    | A     | B          | A    | B    | A          | A    | A    |
| HCM2kAvgQ:                | 0           | 7    | 0    | 0           | 5    | 1     | 8          | 0    | 8    | 0          | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 672  | 0    | 0    | 454  | 700  | 853  | 0    | 7    | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 672  | 0    | 0    | 454  | 700  | 853  | 0    | 7    | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 672  | 0    | 0    | 454  | 700  | 853  | 0    | 7    | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 672  | 0    | 0    | 454  | 700  | 853  | 0    | 7    | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 672  | 0    | 0    | 454  | 700  | 853  | 0    | 7    | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 672  | 0    | 0    | 454  | 700  | 853  | 0    | 7    | 0    | 0    | 0    |

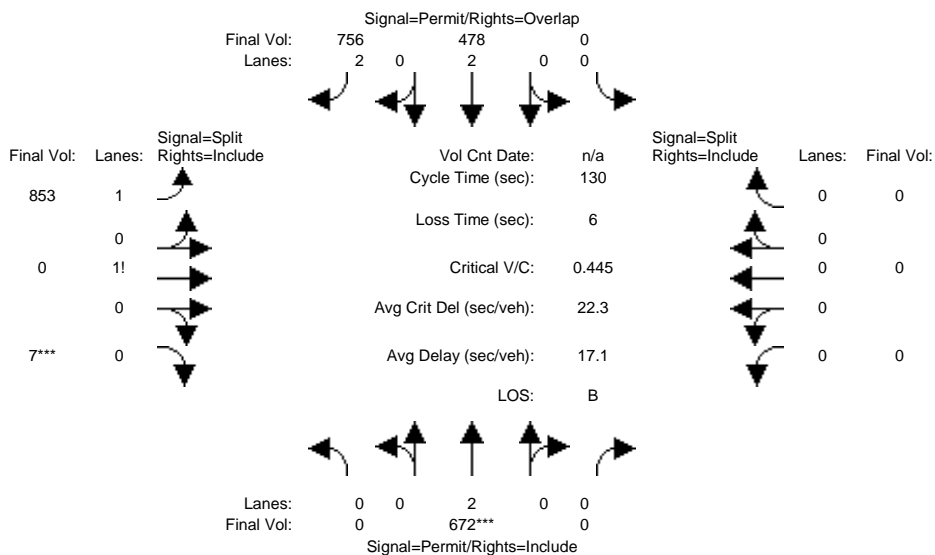
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 1.98 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 3800 | 0    | 0    | 3800 | 3150 | 3472 | 0    | 28   | 0    | 0    | 0    |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.18 | 0.00 | 0.00 | 0.12 | 0.22  | 0.25 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               | **** |      |      | **** |      |       | **** |      |      | **** |      |      |
| Green Time:               | 0.0  | 51.7 | 0.0  | 0.0  | 51.7 | 124.0 | 72.3 | 0.0  | 72.3 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.45 | 0.00 | 0.00 | 0.30 | 0.23  | 0.44 | 0.00 | 0.45 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 28.7 | 0.0  | 0.0  | 26.8 | 0.2   | 16.9 | 0.0  | 17.0 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.2  | 0.0  | 0.0  | 0.1  | 0.0   | 0.2  | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 28.9 | 0.0  | 0.0  | 26.9 | 0.2   | 17.1 | 0.0  | 17.2 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 28.9 | 0.0  | 0.0  | 26.9 | 0.2   | 17.1 | 0.0  | 17.2 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | C    | A    | A    | C    | A     | B    | A    | B    | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 9    | 0    | 0    | 6    | 1     | 11   | 0    | 11   | 0    | 0    | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P AM

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 672  | 0    | 0    | 454  | 700  | 853  | 0    | 7    | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 672  | 0    | 0    | 454  | 700  | 853  | 0    | 7    | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 24   | 56   | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 672  | 0    | 0    | 478  | 756  | 853  | 0    | 7    | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 672  | 0    | 0    | 478  | 756  | 853  | 0    | 7    | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 672  | 0    | 0    | 478  | 756  | 853  | 0    | 7    | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 672  | 0    | 0    | 478  | 756  | 853  | 0    | 7    | 0    | 0    | 0    |

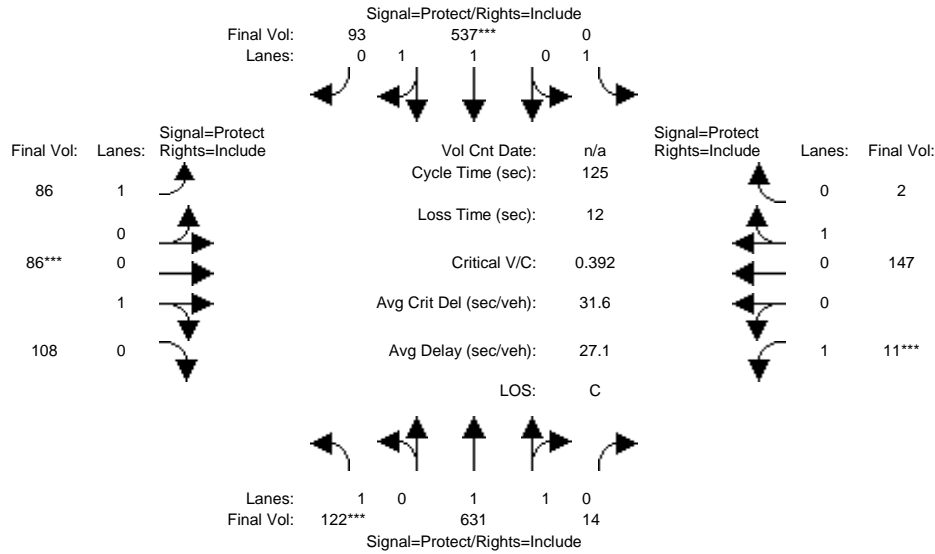
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 1.98 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 3800 | 0    | 0    | 3800 | 3150 | 3472 | 0    | 28   | 0    | 0    | 0    |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.18 | 0.00 | 0.00 | 0.13 | 0.24  | 0.25 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               | **** |      |      | **** |      |       | **** |      |      | **** |      |      |
| Green Time:               | 0.0  | 51.7 | 0.0  | 0.0  | 51.7 | 124.0 | 72.3 | 0.0  | 72.3 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.45 | 0.00 | 0.00 | 0.32 | 0.25  | 0.44 | 0.00 | 0.45 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 28.7 | 0.0  | 0.0  | 27.0 | 0.2   | 16.9 | 0.0  | 17.0 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.2  | 0.0  | 0.0  | 0.1  | 0.0   | 0.2  | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 28.9 | 0.0  | 0.0  | 27.1 | 0.2   | 17.1 | 0.0  | 17.2 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 28.9 | 0.0  | 0.0  | 27.1 | 0.2   | 17.1 | 0.0  | 17.2 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | C    | A    | A    | C    | A     | B    | A    | B    | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 9    | 0    | 0    | 6    | 1     | 11   | 0    | 11   | 0    | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Maude Ave EB |      |      | Maude Ave WB |      |      |
|----------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Base Vol:      | 122              | 631  | 14   | 0                | 537  | 93   | 86           | 86   | 108  | 11           | 147  | 2    |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Initial Bse:   | 122              | 631  | 14   | 0                | 537  | 93   | 86           | 86   | 108  | 11           | 147  | 2    |
| Added Vol:     | 0                | 0    | 0    | 0                | 0    | 0    | 0            | 0    | 0    | 0            | 0    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0            | 0    | 0    | 0            | 0    | 0    |
| Initial Fut:   | 122              | 631  | 14   | 0                | 537  | 93   | 86           | 86   | 108  | 11           | 147  | 2    |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| PHF Volume:    | 122              | 631  | 14   | 0                | 537  | 93   | 86           | 86   | 108  | 11           | 147  | 2    |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0            | 0    | 0    | 0            | 0    | 0    |
| Reduced Vol:   | 122              | 631  | 14   | 0                | 537  | 93   | 86           | 86   | 108  | 11           | 147  | 2    |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Final Volume:  | 122              | 631  | 14   | 0                | 537  | 93   | 86           | 86   | 108  | 11           | 147  | 2    |

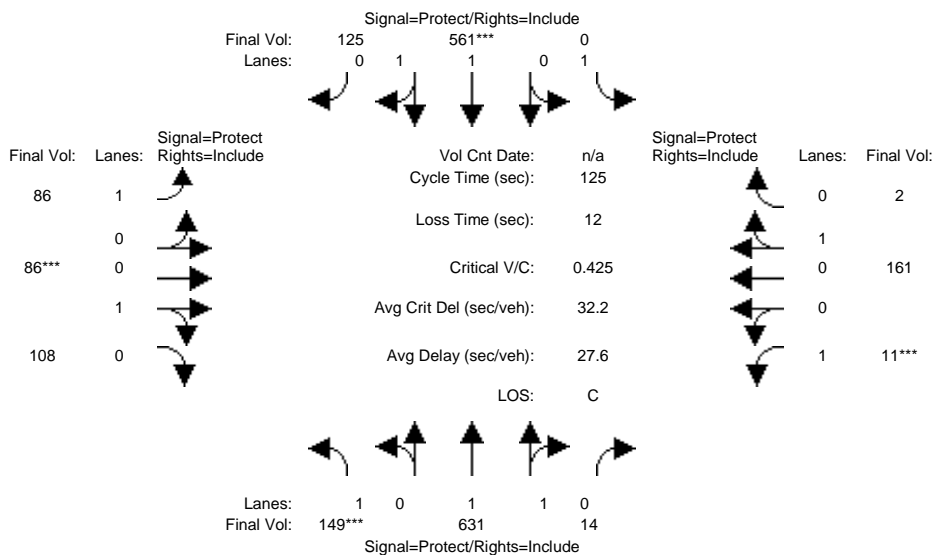
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Maude Ave EB |      |      | Maude Ave WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900         | 1900 | 1900 | 1900         | 1900 | 1900 |
| Adjustment:             | 0.92             | 0.97 | 0.95 | 0.92             | 0.98 | 0.95 | 0.92         | 0.95 | 0.95 | 0.92         | 0.95 | 0.95 |
| Lanes:                  | 1.00             | 1.96 | 0.04 | 1.00             | 1.70 | 0.30 | 1.00         | 0.44 | 0.56 | 1.00         | 0.99 | 0.01 |
| Final Sat.:             | 1750             | 3620 | 80   | 1750             | 3153 | 546  | 1750         | 798  | 1002 | 1750         | 1776 | 24   |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Maude Ave EB |      |      | Maude Ave WB |      |      |
|---------------------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Vol/Sat:                  | 0.07             | 0.17 | 0.17 | 0.00             | 0.17 | 0.17 | 0.05         | 0.11 | 0.11 | 0.01         | 0.08 | 0.08 |
| Crit Moves:               | ***              |      |      | ****             |      |      | ****         |      |      | ****         |      |      |
| Green Time:               | 21.2             | 73.2 | 73.2 | 0.0              | 51.9 | 51.9 | 16.1         | 32.8 | 32.8 | 7.0          | 23.8 | 23.8 |
| Volume/Cap:               | 0.41             | 0.30 | 0.30 | 0.00             | 0.41 | 0.41 | 0.38         | 0.41 | 0.41 | 0.11         | 0.44 | 0.44 |
| Uniform Del:              | 46.3             | 13.0 | 13.0 | 0.0              | 25.8 | 25.8 | 49.9         | 38.1 | 38.1 | 56.0         | 44.7 | 44.7 |
| IncrcmntDel:              | 0.9              | 0.1  | 0.1  | 0.0              | 0.2  | 0.2  | 1.1          | 0.6  | 0.6  | 0.5          | 0.9  | 0.9  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0          | 0.0  | 0.0  | 0.0          | 0.0  | 0.0  |
| Delay Adj:                | 1.00             | 1.00 | 1.00 | 0.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Delay/Veh:                | 47.2             | 13.1 | 13.1 | 0.0              | 25.9 | 25.9 | 51.0         | 38.7 | 38.7 | 56.6         | 45.6 | 45.6 |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| AdjDel/Veh:               | 47.2             | 13.1 | 13.1 | 0.0              | 25.9 | 25.9 | 51.0         | 38.7 | 38.7 | 56.6         | 45.6 | 45.6 |
| LOS by Move:              | D                | B    | B    | A                | C    | C    | D            | D+   | D+   | E+           | D    | D    |
| HCM2kAvgQ:                | 5                | 6    | 6    | 0                | 8    | 8    | 4            | 7    | 7    | 1            | 6    | 6    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Maude Ave EB |      |      | Maude Ave WB |      |      |
|----------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Base Vol:      | 122              | 631  | 14   | 0                | 537  | 93   | 86           | 86   | 108  | 11           | 147  | 2    |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Initial Bse:   | 122              | 631  | 14   | 0                | 537  | 93   | 86           | 86   | 108  | 11           | 147  | 2    |
| Added Vol:     | 27               | 0    | 0    | 0                | 24   | 32   | 0            | 0    | 0    | 0            | 14   | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0            | 0    | 0    | 0            | 0    | 0    |
| Initial Fut:   | 149              | 631  | 14   | 0                | 561  | 125  | 86           | 86   | 108  | 11           | 161  | 2    |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| PHF Volume:    | 149              | 631  | 14   | 0                | 561  | 125  | 86           | 86   | 108  | 11           | 161  | 2    |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0            | 0    | 0    | 0            | 0    | 0    |
| Reduced Vol:   | 149              | 631  | 14   | 0                | 561  | 125  | 86           | 86   | 108  | 11           | 161  | 2    |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Final Volume:  | 149              | 631  | 14   | 0                | 561  | 125  | 86           | 86   | 108  | 11           | 161  | 2    |

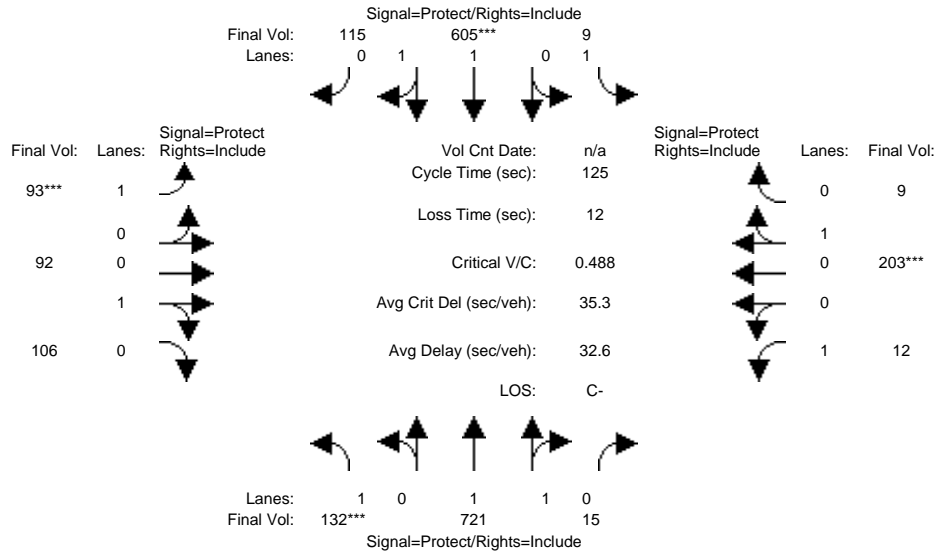
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Maude Ave EB |      |      | Maude Ave WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900         | 1900 | 1900 | 1900         | 1900 | 1900 |
| Adjustment:             | 0.92             | 0.97 | 0.95 | 0.92             | 0.98 | 0.95 | 0.92         | 0.95 | 0.95 | 0.92         | 0.95 | 0.95 |
| Lanes:                  | 1.00             | 1.96 | 0.04 | 1.00             | 1.63 | 0.37 | 1.00         | 0.44 | 0.56 | 1.00         | 0.99 | 0.01 |
| Final Sat.:             | 1750             | 3620 | 80   | 1750             | 3025 | 674  | 1750         | 798  | 1002 | 1750         | 1778 | 22   |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Maude Ave EB |      |      | Maude Ave WB |      |      |
|---------------------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Vol/Sat:                  | 0.09             | 0.17 | 0.17 | 0.00             | 0.19 | 0.19 | 0.05         | 0.11 | 0.11 | 0.01         | 0.09 | 0.09 |
| Crit Moves:               | ***              |      |      | ****             |      |      | ****         |      |      | ****         |      |      |
| Green Time:               | 23.9             | 75.8 | 75.8 | 0.0              | 52.0 | 52.0 | 14.2         | 30.2 | 30.2 | 7.0          | 23.0 | 23.0 |
| Volume/Cap:               | 0.45             | 0.29 | 0.29 | 0.00             | 0.45 | 0.45 | 0.43         | 0.45 | 0.45 | 0.11         | 0.49 | 0.49 |
| Uniform Del:              | 44.7             | 11.7 | 11.7 | 0.0              | 26.2 | 26.2 | 51.6         | 40.3 | 40.3 | 56.0         | 45.8 | 45.8 |
| IncrcmntDel:              | 1.0              | 0.1  | 0.1  | 0.0              | 0.2  | 0.2  | 1.5          | 0.7  | 0.7  | 0.5          | 1.2  | 1.2  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0          | 0.0  | 0.0  | 0.0          | 0.0  | 0.0  |
| Delay Adj:                | 1.00             | 1.00 | 1.00 | 0.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Delay/Veh:                | 45.7             | 11.8 | 11.8 | 0.0              | 26.4 | 26.4 | 53.1         | 41.0 | 41.0 | 56.6         | 46.9 | 46.9 |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| AdjDel/Veh:               | 45.7             | 11.8 | 11.8 | 0.0              | 26.4 | 26.4 | 53.1         | 41.0 | 41.0 | 56.6         | 46.9 | 46.9 |
| LOS by Move:              | D                | B+   | B+   | A                | C    | C    | D-           | D    | D    | E+           | D    | D    |
| HCM2kAvgQ:                | 6                | 6    | 6    | 0                | 9    | 9    | 4            | 7    | 7    | 1            | 6    | 6    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 132  | 721  | 15   | 9    | 605  | 115  | 93   | 92   | 106  | 12   | 203  | 9    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 132  | 721  | 15   | 9    | 605  | 115  | 93   | 92   | 106  | 12   | 203  | 9    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 132  | 721  | 15   | 9    | 605  | 115  | 93   | 92   | 106  | 12   | 203  | 9    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 132  | 721  | 15   | 9    | 605  | 115  | 93   | 92   | 106  | 12   | 203  | 9    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 132  | 721  | 15   | 9    | 605  | 115  | 93   | 92   | 106  | 12   | 203  | 9    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 132  | 721  | 15   | 9    | 605  | 115  | 93   | 92   | 106  | 12   | 203  | 9    |

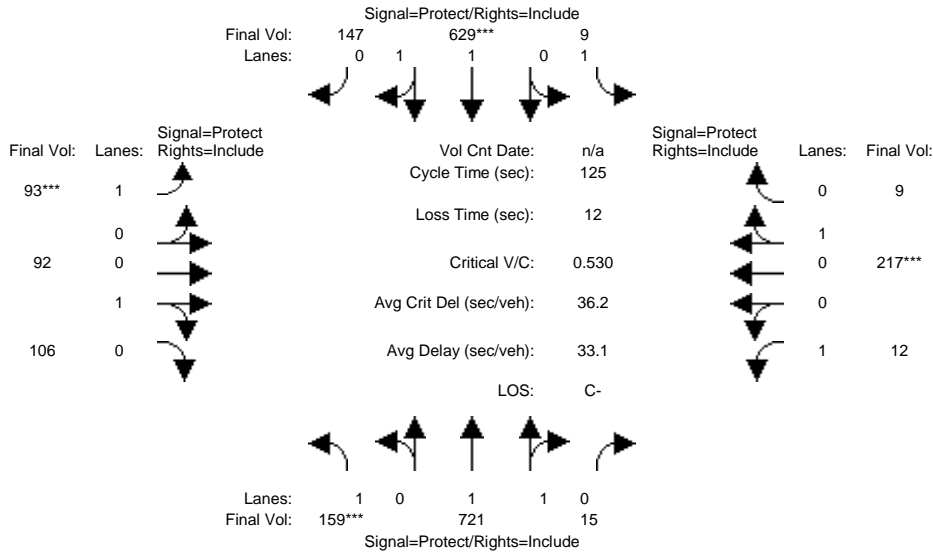
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes:                  | 1.00 | 1.96 | 0.04 | 1.00 | 1.67 | 0.33 | 1.00 | 0.46 | 0.54 | 1.00 | 0.96 | 0.04 |
| Final Sat.:             | 1750 | 3625 | 75   | 1750 | 3109 | 591  | 1750 | 836  | 964  | 1750 | 1724 | 76   |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.08 | 0.20 | 0.20 | 0.01 | 0.19 | 0.19 | 0.05 | 0.11 | 0.11 | 0.01 | 0.12 | 0.12 |
| Crit Moves:               | ***  |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 19.3 | 54.0 | 54.0 | 15.2 | 49.9 | 49.9 | 13.6 | 29.0 | 29.0 | 14.8 | 30.2 | 30.2 |
| Volume/Cap:               | 0.49 | 0.46 | 0.46 | 0.04 | 0.49 | 0.49 | 0.49 | 0.47 | 0.47 | 0.06 | 0.49 | 0.49 |
| Uniform Del:              | 48.3 | 25.2 | 25.2 | 48.5 | 28.0 | 28.0 | 52.4 | 41.4 | 41.4 | 48.9 | 40.8 | 40.8 |
| IncrcmntDel:              | 1.4  | 0.2  | 0.2  | 0.1  | 0.3  | 0.3  | 2.0  | 0.8  | 0.8  | 0.1  | 0.9  | 0.9  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 49.7 | 25.4 | 25.4 | 48.6 | 28.3 | 28.3 | 54.4 | 42.3 | 42.3 | 49.1 | 41.6 | 41.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 49.7 | 25.4 | 25.4 | 48.6 | 28.3 | 28.3 | 54.4 | 42.3 | 42.3 | 49.1 | 41.6 | 41.6 |
| LOS by Move:              | D    | C    | C    | D    | C    | C    | D-   | D    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 5    | 10   | 10   | 0    | 10   | 10   | 4    | 7    | 7    | 0    | 8    | 8    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P AM

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 132  | 721  | 15   | 9    | 605  | 115  | 93   | 92   | 106  | 12   | 203  | 9    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 132  | 721  | 15   | 9    | 605  | 115  | 93   | 92   | 106  | 12   | 203  | 9    |
| Added Vol:     | 27   | 0    | 0    | 0    | 24   | 32   | 0    | 0    | 0    | 0    | 14   | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 159  | 721  | 15   | 9    | 629  | 147  | 93   | 92   | 106  | 12   | 217  | 9    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 159  | 721  | 15   | 9    | 629  | 147  | 93   | 92   | 106  | 12   | 217  | 9    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 159  | 721  | 15   | 9    | 629  | 147  | 93   | 92   | 106  | 12   | 217  | 9    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 159  | 721  | 15   | 9    | 629  | 147  | 93   | 92   | 106  | 12   | 217  | 9    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes:                  | 1.00 | 1.96 | 0.04 | 1.00 | 1.61 | 0.39 | 1.00 | 0.46 | 0.54 | 1.00 | 0.96 | 0.04 |
| Final Sat.:             | 1750 | 3625 | 75   | 1750 | 2999 | 701  | 1750 | 836  | 964  | 1750 | 1728 | 72   |

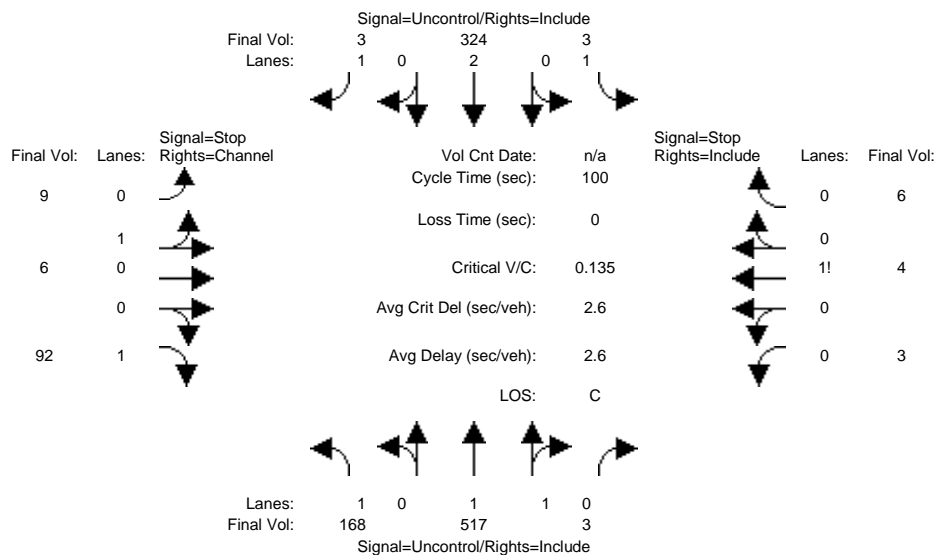
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.09 | 0.20 | 0.20 | 0.01 | 0.21 | 0.21 | 0.05 | 0.11 | 0.11 | 0.01 | 0.13 | 0.13 |
| Crit Moves:               | ***  |      |      |      | ***  |      | ***  |      |      |      | ***  |      |
| Green Time:               | 21.4 | 55.3 | 55.3 | 15.6 | 49.5 | 49.5 | 12.5 | 27.9 | 27.9 | 14.2 | 29.6 | 29.6 |
| Volume/Cap:               | 0.53 | 0.45 | 0.45 | 0.04 | 0.53 | 0.53 | 0.53 | 0.49 | 0.49 | 0.06 | 0.53 | 0.53 |
| Uniform Del:              | 47.2 | 24.3 | 24.3 | 48.1 | 28.9 | 28.9 | 53.4 | 42.4 | 42.4 | 49.4 | 41.6 | 41.6 |
| IncrcmntDel:              | 1.8  | 0.2  | 0.2  | 0.1  | 0.4  | 0.4  | 3.1  | 1.0  | 1.0  | 0.1  | 1.3  | 1.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 49.0 | 24.5 | 24.5 | 48.2 | 29.3 | 29.3 | 56.5 | 43.3 | 43.3 | 49.6 | 42.9 | 42.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 49.0 | 24.5 | 24.5 | 48.2 | 29.3 | 29.3 | 56.5 | 43.3 | 43.3 | 49.6 | 42.9 | 42.9 |
| LOS by Move:              | D    | C    | C    | D    | C    | C    | E+   | D    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 7    | 10   | 10   | 0    | 11   | 11   | 4    | 7    | 7    | 0    | 8    | 8    |

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



Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Existing AM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

|              |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:    | 168  | 517  | 3    | 3    | 324  | 3    | 9    | 6    | 92   | 3    | 4    | 6    |
| Growth Adj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 168  | 517  | 3    | 3    | 324  | 3    | 9    | 6    | 92   | 3    | 4    | 6    |
| Added Vol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol: | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut: | 168  | 517  | 3    | 3    | 324  | 3    | 9    | 6    | 92   | 3    | 4    | 6    |
| User Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:  | 168  | 517  | 3    | 3    | 324  | 3    | 9    | 6    | 92   | 3    | 4    | 6    |
| Reduct Vol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume: | 168  | 517  | 3    | 3    | 324  | 3    | 9    | 6    | 92   | 3    | 4    | 6    |

Critical Gap Module:

|              |     |      |        |     |      |        |     |     |     |     |     |     |
|--------------|-----|------|--------|-----|------|--------|-----|-----|-----|-----|-----|-----|
| Critical Gp: | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxxx | 2.2 | xxxx | xxxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |

Capacity Module:

|              |      |      |        |      |      |        |      |      |      |      |      |      |
|--------------|------|------|--------|------|------|--------|------|------|------|------|------|------|
| Cnflct Vol:  | 327  | xxxx | xxxxxx | 520  | xxxx | xxxxxx | 927  | 1186 | 162  | 1026 | 1188 | 260  |
| Potent Cap.: | 1244 | xxxx | xxxxxx | 1056 | xxxx | xxxxxx | 226  | 190  | 861  | 192  | 190  | 745  |
| Move Cap.:   | 1244 | xxxx | xxxxxx | 1056 | xxxx | xxxxxx | 197  | 164  | 861  | 149  | 164  | 745  |
| Volume/Cap:  | 0.14 | xxxx | xxxx   | 0.00 | xxxx | xxxx   | 0.05 | 0.04 | 0.11 | 0.02 | 0.02 | 0.01 |

Level Of Service Module:

|              |               |      |        |               |      |        |               |      |        |               |      |        |
|--------------|---------------|------|--------|---------------|------|--------|---------------|------|--------|---------------|------|--------|
| 2Way95thQ:   | 0.5           | xxxx | xxxxxx | 0.0           | xxxx | xxxxxx | xxxx          | xxxx | 0.4    | xxxx          | xxxx | xxxxxx |
| Control Del: | 8.3           | xxxx | xxxxxx | 8.4           | xxxx | xxxxxx | xxxxxx        | xxxx | 9.7    | xxxxxx        | xxxx | xxxxxx |
| LOS by Move: | A             | *    | *      | A             | *    | *      | *             | *    | A      | *             | *    | *      |
| Movement:    | LT - LTR - RT |      |        | LT - LTR - RT |      |        | LT - LTR - RT |      |        | LT - LTR - RT |      |        |
| Shared Cap.: | xxxx          | xxxx | xxxxxx | xxxx          | xxxx | xxxxxx | 183           | xxxx | xxxxxx | xxxx          | 247  | xxxxxx |
| SharedQueue: | xxxxxx        | xxxx | xxxxxx | xxxxxx        | xxxx | xxxxxx | 0.3           | xxxx | xxxxxx | xxxxxx        | 0.2  | xxxxxx |
| Shrd ConDel: | xxxxxx        | xxxx | xxxxxx | xxxxxx        | xxxx | xxxxxx | 26.5          | xxxx | xxxxxx | xxxxxx        | 20.4 | xxxxxx |
| Shared LOS:  | *             | *    | *      | *             | *    | *      | D             | *    | *      | *             | C    | *      |
| ApproachDel: | xxxxxxx       |      |        | xxxxxxx       |      |        | 12.0          |      |        | 20.4          |      |        |
| ApproachLOS: | *             |      |        | *             |      |        | B             |      |        | C             |      |        |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 168 517 3    | 3 324 3      | 9 6 92     | 3 4 6      |
| ApproachDel: | xxxxxx       | xxxxxx       | 12.0       | 20.4       |

-----|-----|-----|-----|-----|  
 Approach[eastbound][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=107]  
 FAIL - Approach volume less than 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1138]  
 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=0.1]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=13]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1138]  
 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).

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  
 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 168 517 3    | 3 324 3      | 9 6 92     | 3 4 6      |

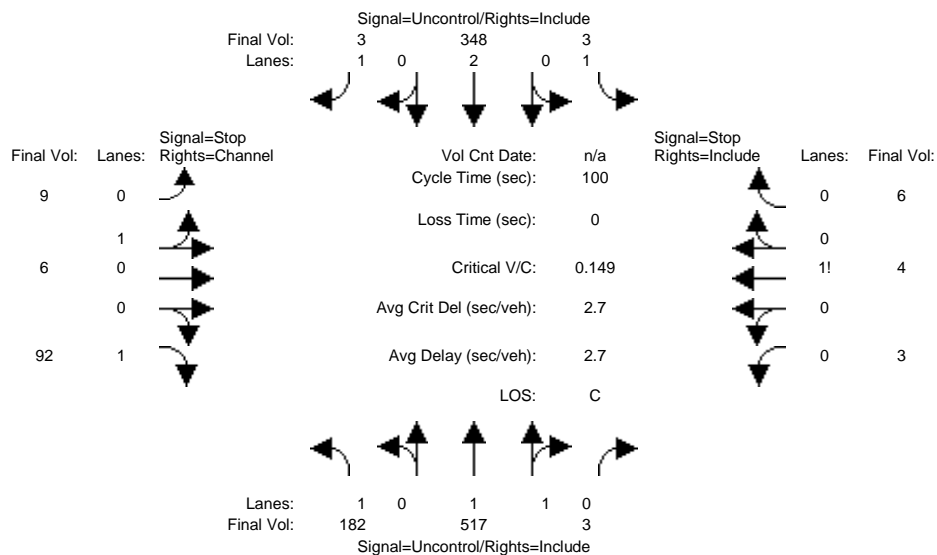
-----|-----|-----|-----|-----|  
 Major Street Volume: 1018  
 Minor Approach Volume: 107  
 Minor Approach Volume Threshold: 366

-----|-----|-----|-----|-----|  
 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).

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  
 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P AM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUpTime.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #22 Wolfe Rd & Maude Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 182 517 3    | 3 348 3      | 9 6 92     | 3 4 6      |
| ApproachDel: | xxxxxx       | xxxxxx       | 12.4       | 21.6       |

-----|-----|-----|-----|-----|  
 Approach[eastbound][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=107]  
 FAIL - Approach volume less than 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1176]  
 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=0.1]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=13]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1176]  
 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).  
 -----|-----|-----|-----|-----|

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  
 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 182 517 3    | 3 348 3      | 9 6 92     | 3 4 6      |

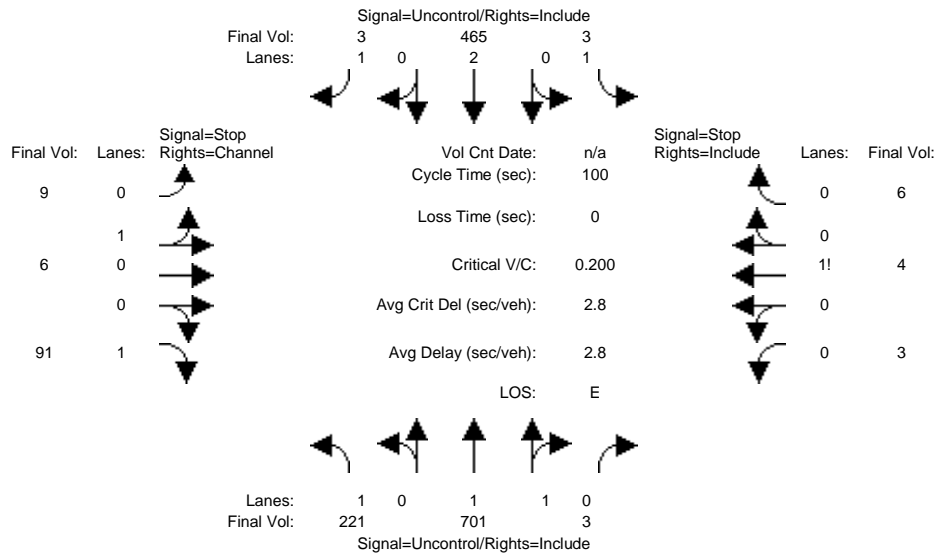
-----|-----|-----|-----|-----|  
 Major Street Volume: 1056  
 Minor Approach Volume: 107  
 Minor Approach Volume Threshold: 351  
 -----|-----|-----|-----|-----|

-----|-----|-----|-----|-----|  
 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).  
 -----|-----|-----|-----|-----|

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  
 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUpTime.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #22 Wolfe Rd & Maude Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 221 701 3    | 3 465 3      | 9 6 91     | 3 4 6      |
| ApproachDel: | xxxxxx       | xxxxxx       | 15.9       | 35.1       |

Approach[eastbound][lanes=2][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.5]  
 FAIL - Vehicle-hours less than 5 for two or more lane approach.  
 Signal Warrant Rule #2: [approach volume=106]  
 FAIL - Approach volume less than 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1515]  
 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=0.1]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=13]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1515]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 221 701 3    | 3 465 3      | 9 6 91     | 3 4 6      |

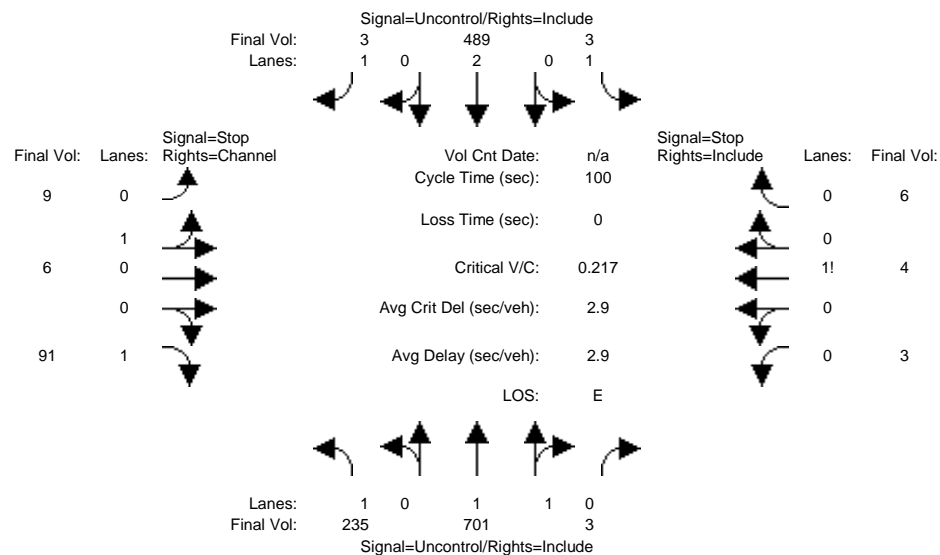
Major Street Volume: 1396  
 Minor Approach Volume: 106  
 Minor Approach Volume Threshold: 231

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P AM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for each approach and movement. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing critical gap modules. Rows include Critical Gap and FollowUpTime for each approach and movement.

Table with 13 columns representing capacity modules. Rows include Conflict Vol, Potent Cap., Move Cap., and Volume/Cap for each approach and movement.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach and movement.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #22 Wolfe Rd & Maude Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 235 701 3    | 3 489 3      | 9 6 91     | 3 4 6      |
| ApproachDel: | xxxxxx       | xxxxxx       | 16.8       | 38.1       |

Approach[eastbound][lanes=2][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.5]  
 FAIL - Vehicle-hours less than 5 for two or more lane approach.  
 Signal Warrant Rule #2: [approach volume=106]  
 FAIL - Approach volume less than 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1553]  
 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=0.1]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=13]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1553]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 235 701 3    | 3 489 3      | 9 6 91     | 3 4 6      |

Major Street Volume: 1434  
 Minor Approach Volume: 106  
 Minor Approach Volume Threshold: 219

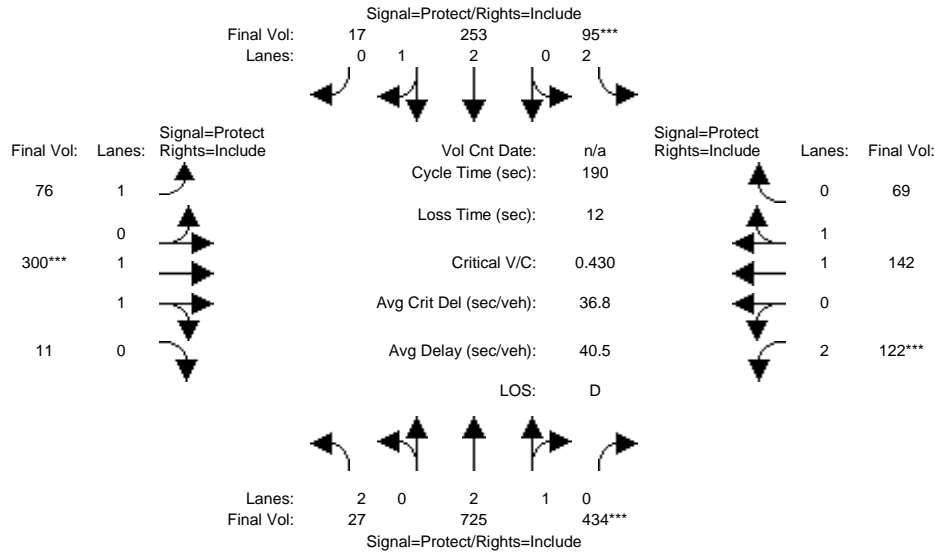
SIGNAL WARRANT DISCLAIMER  
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 27   | 725  | 434  | 95   | 253  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 27   | 725  | 434  | 95   | 253  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 27   | 725  | 434  | 95   | 253  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 27   | 725  | 434  | 95   | 253  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 27   | 725  | 434  | 95   | 253  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 27   | 725  | 434  | 95   | 253  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |

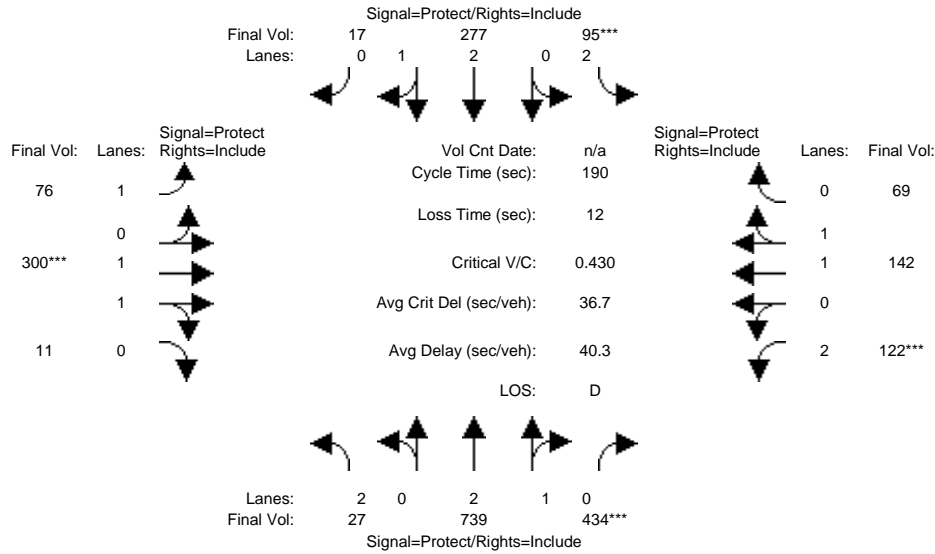
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.92 | 0.97 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.00 | 1.00 | 2.00 | 2.80 | 0.20 | 1.00 | 1.93 | 0.07 | 2.00 | 1.33 | 0.67 |
| Final Sat.:             | 3150 | 3800 | 1750 | 3150 | 5247 | 353  | 1750 | 3569 | 131  | 3150 | 2489 | 1210 |

| Capacity Analysis Module: |      |      |       |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.19 | 0.25  | 0.03 | 0.05 | 0.05 | 0.04 | 0.08 | 0.08 | 0.04 | 0.06 | 0.06 |
| Crit Moves:               |      |      | ****  | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 50.7 | 110  | 109.7 | 13.3 | 72.4 | 72.4 | 23.5 | 37.2 | 37.2 | 17.1 | 30.8 | 30.8 |
| Volume/Cap:               | 0.03 | 0.33 | 0.43  | 0.43 | 0.13 | 0.13 | 0.35 | 0.43 | 0.43 | 0.43 | 0.35 | 0.35 |
| Uniform Del:              | 48.8 | 19.9 | 21.4  | 80.2 | 36.2 | 36.2 | 72.3 | 63.6 | 63.6 | 77.5 | 67.0 | 67.0 |
| IncrcmntDel:              | 0.0  | 0.1  | 0.1   | 1.3  | 0.0  | 0.0  | 1.0  | 0.4  | 0.4  | 1.0  | 0.4  | 0.4  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 48.8 | 19.9 | 21.5  | 81.6 | 36.3 | 36.3 | 73.3 | 64.0 | 64.0 | 78.6 | 67.3 | 67.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 48.8 | 19.9 | 21.5  | 81.6 | 36.3 | 36.3 | 73.3 | 64.0 | 64.0 | 78.6 | 67.3 | 67.3 |
| LOS by Move:              | D    | B-   | C+    | F    | D+   | D+   | E    | E    | E    | E-   | E    | E    |
| HCM2kAvgQ:                | 1    | 10   | 14    | 3    | 3    | 3    | 4    | 8    | 8    | 4    | 5    | 5    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P AM

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 27   | 725  | 434  | 95   | 253  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 27   | 725  | 434  | 95   | 253  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| Added Vol:     | 0    | 14   | 0    | 0    | 24   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 27   | 739  | 434  | 95   | 277  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 27   | 739  | 434  | 95   | 277  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 27   | 739  | 434  | 95   | 277  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 27   | 739  | 434  | 95   | 277  | 17   | 76   | 300  | 11   | 122  | 142  | 69   |

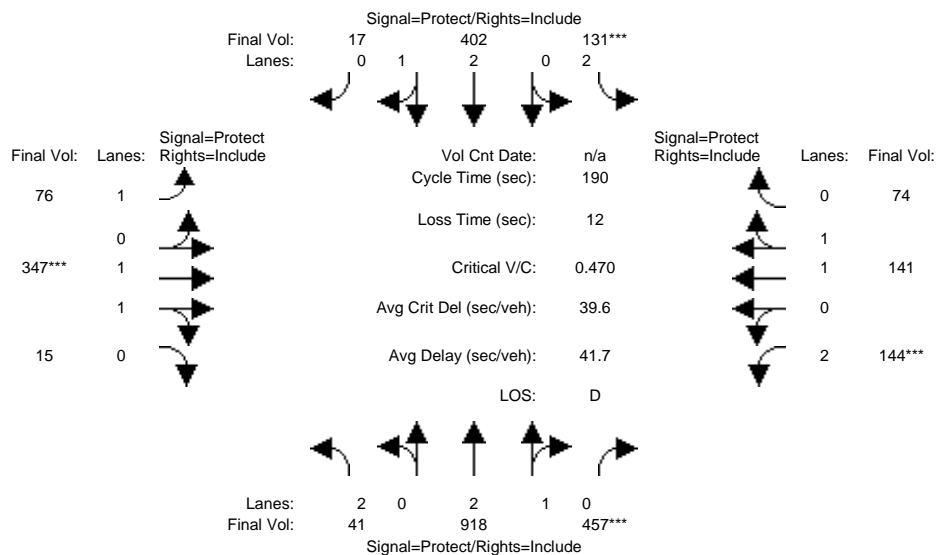
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.92 | 0.97 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.00 | 1.00 | 2.00 | 2.82 | 0.18 | 1.00 | 1.93 | 0.07 | 2.00 | 1.33 | 0.67 |
| Final Sat.:             | 3150 | 3800 | 1750 | 3150 | 5276 | 324  | 1750 | 3569 | 131  | 3150 | 2489 | 1210 |

| Capacity Analysis Module: |      |      |       |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.19 | 0.25  | 0.03 | 0.05 | 0.05 | 0.04 | 0.08 | 0.08 | 0.04 | 0.06 | 0.06 |
| Crit Moves:               |      |      | ****  | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 50.7 | 110  | 109.7 | 13.3 | 72.4 | 72.4 | 23.5 | 37.2 | 37.2 | 17.1 | 30.8 | 30.8 |
| Volume/Cap:               | 0.03 | 0.34 | 0.43  | 0.43 | 0.14 | 0.14 | 0.35 | 0.43 | 0.43 | 0.43 | 0.35 | 0.35 |
| Uniform Del:              | 48.8 | 20.0 | 21.4  | 80.2 | 36.4 | 36.4 | 72.3 | 63.6 | 63.6 | 77.5 | 67.0 | 67.0 |
| IncrcmntDel:              | 0.0  | 0.1  | 0.1   | 1.3  | 0.0  | 0.0  | 1.0  | 0.4  | 0.4  | 1.0  | 0.4  | 0.4  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 48.8 | 20.0 | 21.5  | 81.6 | 36.4 | 36.4 | 73.3 | 64.0 | 64.0 | 78.6 | 67.3 | 67.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 48.8 | 20.0 | 21.5  | 81.6 | 36.4 | 36.4 | 73.3 | 64.0 | 64.0 | 78.6 | 67.3 | 67.3 |
| LOS by Move:              | D    | C+   | C+    | F    | D+   | D+   | E    | E    | E    | E-   | E    | E    |
| HCM2kAvgQ:                | 1    | 10   | 14    | 3    | 3    | 3    | 4    | 8    | 8    | 4    | 5    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 41   | 918  | 457  | 131  | 402  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 41   | 918  | 457  | 131  | 402  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 41   | 918  | 457  | 131  | 402  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 41   | 918  | 457  | 131  | 402  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 41   | 918  | 457  | 131  | 402  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 41   | 918  | 457  | 131  | 402  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |

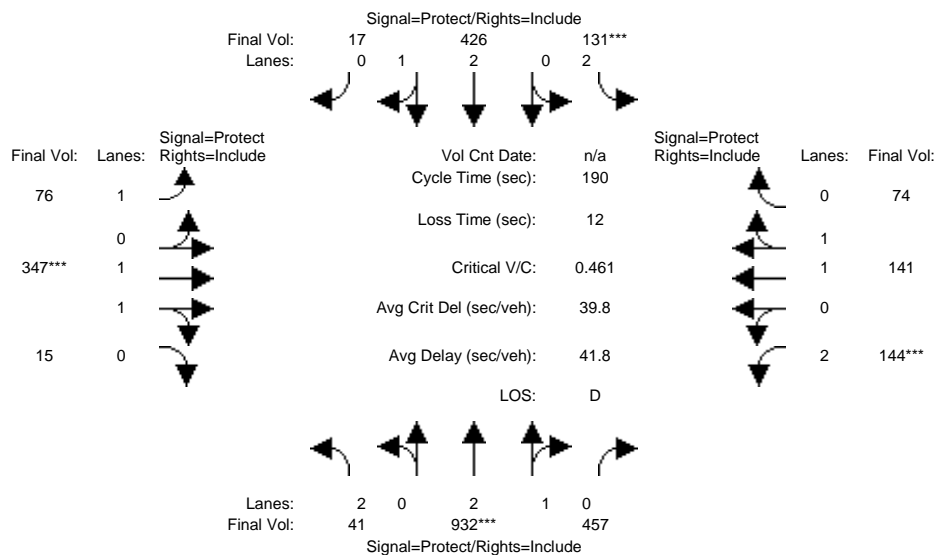
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 1.00 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.97 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.00 | 1.00 | 2.00 | 2.87 | 0.13 | 1.00 | 1.91 | 0.09 | 2.00 | 1.29 | 0.71 |
| Final Sat.:             | 3150 | 3800 | 1800 | 3150 | 5372 | 227  | 1750 | 3547 | 153  | 3150 | 2426 | 1273 |

| Capacity Analysis Module: |      |      |       |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.24 | 0.25  | 0.04 | 0.07 | 0.07 | 0.04 | 0.10 | 0.10 | 0.05 | 0.06 | 0.06 |
| Crit Moves:               |      |      | ****  | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 40.8 | 103  | 102.6 | 16.8 | 78.5 | 78.5 | 24.8 | 39.5 | 39.5 | 18.5 | 33.2 | 33.2 |
| Volume/Cap:               | 0.06 | 0.45 | 0.47  | 0.47 | 0.18 | 0.18 | 0.33 | 0.47 | 0.47 | 0.47 | 0.33 | 0.33 |
| Uniform Del:              | 56.2 | 25.1 | 25.6  | 78.0 | 33.5 | 33.5 | 71.1 | 62.6 | 62.6 | 76.9 | 65.1 | 65.1 |
| IncrcmntDel:              | 0.0  | 0.1  | 0.1   | 1.3  | 0.0  | 0.0  | 0.9  | 0.5  | 0.5  | 1.1  | 0.3  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 56.3 | 25.2 | 25.7  | 79.3 | 33.5 | 33.5 | 72.0 | 63.0 | 63.0 | 78.0 | 65.4 | 65.4 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 56.3 | 25.2 | 25.7  | 79.3 | 33.5 | 33.5 | 72.0 | 63.0 | 63.0 | 78.0 | 65.4 | 65.4 |
| LOS by Move:              | E+   | C    | C     | E-   | C-   | C-   | E    | E    | E    | E-   | E    | E    |
| HCM2kAvgQ:                | 1    | 15   | 16    | 4    | 5    | 5    | 4    | 9    | 9    | 5    | 5    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 41   | 918  | 457  | 131  | 402  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 41   | 918  | 457  | 131  | 402  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| Added Vol:     | 0    | 14   | 0    | 0    | 24   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 41   | 932  | 457  | 131  | 426  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 41   | 932  | 457  | 131  | 426  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 41   | 932  | 457  | 131  | 426  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 41   | 932  | 457  | 131  | 426  | 17   | 76   | 347  | 15   | 144  | 141  | 74   |

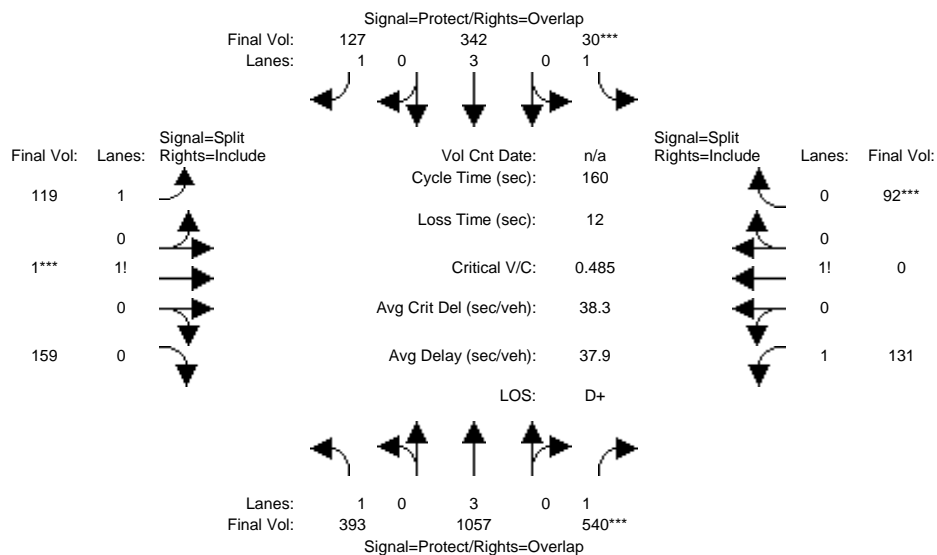
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 1.00 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.97 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.00 | 1.00 | 2.00 | 2.88 | 0.12 | 1.00 | 1.91 | 0.09 | 2.00 | 1.29 | 0.71 |
| Final Sat.:             | 3150 | 3799 | 1800 | 3150 | 5385 | 215  | 1750 | 3547 | 153  | 3150 | 2426 | 1273 |

| Capacity Analysis Module: |      |      |       |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.25 | 0.25  | 0.04 | 0.08 | 0.08 | 0.04 | 0.10 | 0.10 | 0.05 | 0.06 | 0.06 |
| Crit Moves:               | **** |      |       | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 39.0 | 101  | 101.1 | 17.1 | 79.2 | 79.2 | 25.3 | 40.3 | 40.3 | 18.8 | 33.8 | 33.8 |
| Volume/Cap:               | 0.06 | 0.46 | 0.48  | 0.46 | 0.19 | 0.19 | 0.33 | 0.46 | 0.46 | 0.46 | 0.33 | 0.33 |
| Uniform Del:              | 57.6 | 26.1 | 26.4  | 77.7 | 33.2 | 33.2 | 70.7 | 61.9 | 61.9 | 76.5 | 64.5 | 64.5 |
| IncrcmntDel:              | 0.0  | 0.1  | 0.1   | 1.2  | 0.0  | 0.0  | 0.8  | 0.4  | 0.4  | 1.1  | 0.3  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 57.7 | 26.2 | 26.6  | 78.9 | 33.2 | 33.2 | 71.5 | 62.4 | 62.4 | 77.6 | 64.8 | 64.8 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 57.7 | 26.2 | 26.6  | 78.9 | 33.2 | 33.2 | 71.5 | 62.4 | 62.4 | 77.6 | 64.8 | 64.8 |
| LOS by Move:              | E+   | C    | C     | E-   | C-   | C-   | E    | E    | E    | E-   | E    | E    |
| HCM2kAvgQ:                | 1    | 15   | 16    | 4    | 5    | 5    | 4    | 9    | 9    | 5    | 5    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing AM

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 393         | 1057 | 540  | 30          | 342  | 127  | 119        | 1    | 159  | 131        | 0    | 92   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 393         | 1057 | 540  | 30          | 342  | 127  | 119        | 1    | 159  | 131        | 0    | 92   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 393         | 1057 | 540  | 30          | 342  | 127  | 119        | 1    | 159  | 131        | 0    | 92   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 393         | 1057 | 540  | 30          | 342  | 127  | 119        | 1    | 159  | 131        | 0    | 92   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 393         | 1057 | 540  | 30          | 342  | 127  | 119        | 1    | 159  | 131        | 0    | 92   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 393         | 1057 | 540  | 30          | 342  | 127  | 119        | 1    | 159  | 131        | 0    | 92   |

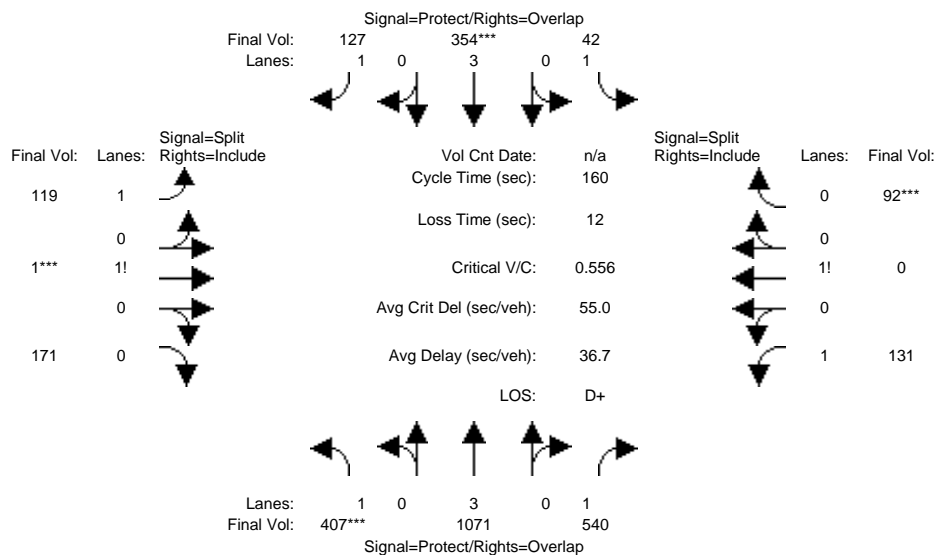
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 0.95 | 0.95 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 1.27       | 0.01 | 0.72 | 1.42       | 0.00 | 0.58 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 2234       | 8    | 1294 | 2478       | 0    | 1022 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.22        | 0.19 | 0.31 | 0.02        | 0.06 | 0.07 | 0.05       | 0.12 | 0.12 | 0.05       | 0.00 | 0.09 |
| Crit Moves:               |             |      | **** | ****        |      |      | ****       |      |      |            |      | **** |
| Green Time:               | 77.0        | 68.2 | 97.9 | 16.0        | 18.3 | 52.4 | 34.1       | 34.1 | 34.1 | 29.7       | 0.0  | 29.7 |
| Volume/Cap:               | 0.47        | 0.43 | 0.50 | 0.17        | 0.52 | 0.22 | 0.25       | 0.58 | 0.58 | 0.28       | 0.00 | 0.48 |
| Uniform Del:              | 27.8        | 32.3 | 17.4 | 65.9        | 66.7 | 39.0 | 52.3       | 56.5 | 56.5 | 56.0       | 0.0  | 58.3 |
| IncrcmntDel:              | 0.4         | 0.1  | 0.4  | 0.5         | 0.8  | 0.2  | 0.1        | 1.7  | 1.7  | 0.2        | 0.0  | 0.8  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 0.00 | 1.00 |
| Delay/Veh:                | 28.2        | 32.4 | 17.8 | 66.4        | 67.5 | 39.2 | 52.5       | 58.2 | 58.2 | 56.2       | 0.0  | 59.1 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.2        | 32.4 | 17.8 | 66.4        | 67.5 | 39.2 | 52.5       | 58.2 | 58.2 | 56.2       | 0.0  | 59.1 |
| LOS by Move:              | C           | C-   | B    | E           | E    | D    | D-         | E+   | E+   | E+         | A    | E+   |
| HCM2kAvgQ:                | 14          | 12   | 16   | 1           | 5    | 5    | 4          | 11   | 11   | 4          | 0    | 8    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P AM

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 393  | 1057 | 540  | 30   | 342  | 127  | 119  | 1    | 159  | 131  | 0    | 92   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 393  | 1057 | 540  | 30   | 342  | 127  | 119  | 1    | 159  | 131  | 0    | 92   |
| Added Vol:     | 14   | 14   | 0    | 12   | 12   | 0    | 0    | 0    | 12   | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 407  | 1071 | 540  | 42   | 354  | 127  | 119  | 1    | 171  | 131  | 0    | 92   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 407  | 1071 | 540  | 42   | 354  | 127  | 119  | 1    | 171  | 131  | 0    | 92   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 407  | 1071 | 540  | 42   | 354  | 127  | 119  | 1    | 171  | 131  | 0    | 92   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 407  | 1071 | 540  | 42   | 354  | 127  | 119  | 1    | 171  | 131  | 0    | 92   |

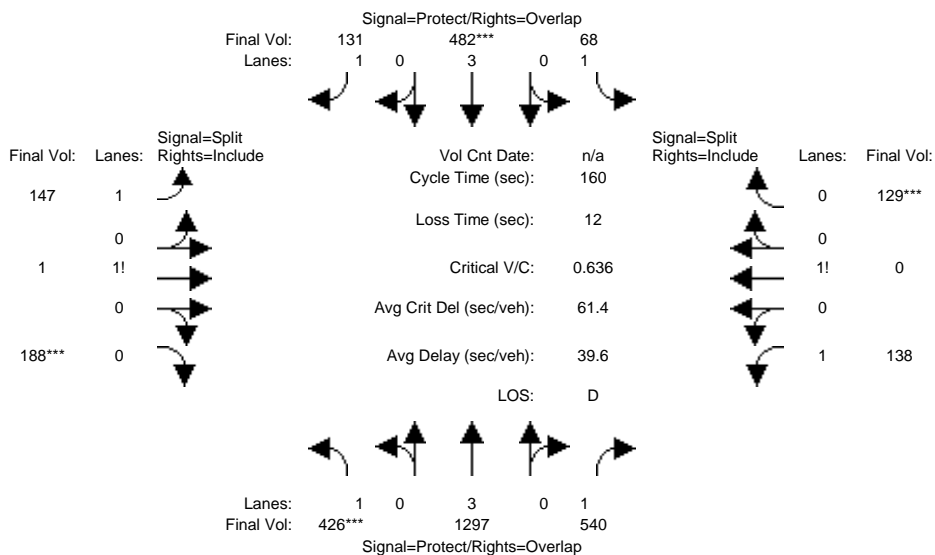
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.26 | 0.01 | 0.73 | 1.42 | 0.00 | 0.58 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2209 | 8    | 1320 | 2478 | 0    | 1022 |

| Capacity Analysis Module: |      |      |       |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.23 | 0.19 | 0.31  | 0.02 | 0.06 | 0.07 | 0.05 | 0.13 | 0.13 | 0.05 | 0.00 | 0.09 |
| Crit Moves:               | ***  |      |       |      | ***  |      |      | ***  |      |      |      | ***  |
| Green Time:               | 77.0 | 79.1 | 101.8 | 16.0 | 15.7 | 48.3 | 32.7 | 32.7 | 32.7 | 22.7 | 0.0  | 22.7 |
| Volume/Cap:               | 0.48 | 0.38 | 0.48  | 0.24 | 0.63 | 0.24 | 0.26 | 0.63 | 0.63 | 0.37 | 0.00 | 0.63 |
| Uniform Del:              | 28.0 | 25.2 | 15.3  | 66.4 | 69.4 | 42.0 | 53.6 | 58.2 | 58.2 | 62.2 | 0.0  | 64.8 |
| IncrcmntDel:              | 0.4  | 0.1  | 0.3   | 0.7  | 2.4  | 0.2  | 0.1  | 2.9  | 2.9  | 0.4  | 0.0  | 3.8  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 28.5 | 25.3 | 15.6  | 67.1 | 71.8 | 42.3 | 53.7 | 61.1 | 61.1 | 62.6 | 0.0  | 68.5 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.5 | 25.3 | 15.6  | 67.1 | 71.8 | 42.3 | 53.7 | 61.1 | 61.1 | 62.6 | 0.0  | 68.5 |
| LOS by Move:              | C    | C    | B     | E    | E    | D    | D-   | E    | E    | E    | A    | E    |
| HCM2kAvgQ:                | 14   | 10   | 15    | 2    | 6    | 5    | 4    | 12   | 12   | 5    | 0    | 9    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd AM

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 426         | 1297 | 540  | 68          | 482  | 131  | 147        | 1    | 188  | 138        | 0    | 129  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 426         | 1297 | 540  | 68          | 482  | 131  | 147        | 1    | 188  | 138        | 0    | 129  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 426         | 1297 | 540  | 68          | 482  | 131  | 147        | 1    | 188  | 138        | 0    | 129  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 426         | 1297 | 540  | 68          | 482  | 131  | 147        | 1    | 188  | 138        | 0    | 129  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 426         | 1297 | 540  | 68          | 482  | 131  | 147        | 1    | 188  | 138        | 0    | 129  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 426         | 1297 | 540  | 68          | 482  | 131  | 147        | 1    | 188  | 138        | 0    | 129  |

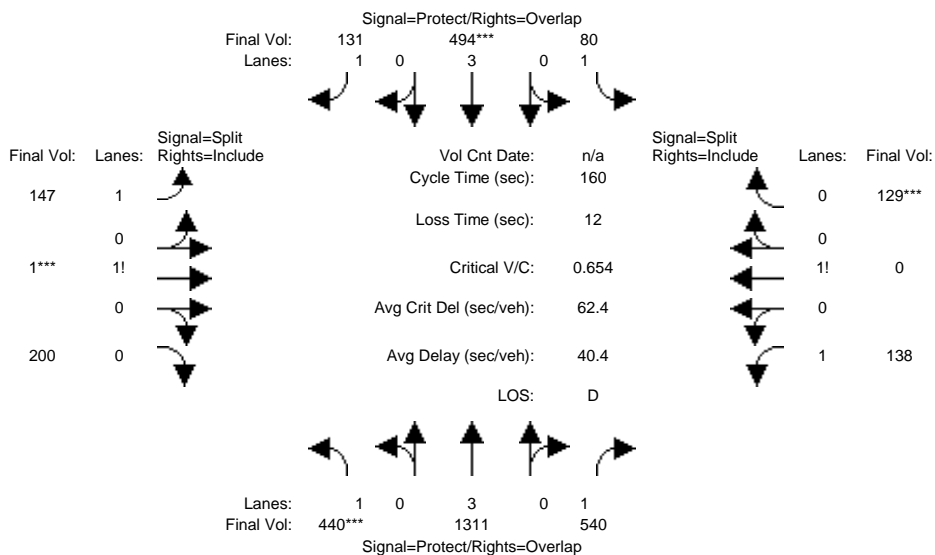
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 0.95 | 0.95 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 1.28       | 0.01 | 0.71 | 1.35       | 0.00 | 0.65 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 2250       | 7    | 1279 | 2360       | 0    | 1140 |

| Capacity Analysis Module: | North Bound |      |       | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|-------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.24        | 0.23 | 0.31  | 0.04        | 0.08 | 0.07 | 0.07       | 0.15 | 0.15 | 0.06       | 0.00 | 0.11 |
| Crit Moves:               | ***         |      |       | ****        |      |      |            |      | **** |            |      | **** |
| Green Time:               | 77.0        | 80.4 | 103.7 | 16.0        | 17.4 | 47.7 | 30.3       | 30.3 | 30.3 | 23.3       | 0.0  | 23.3 |
| Volume/Cap:               | 0.51        | 0.45 | 0.48  | 0.39        | 0.78 | 0.25 | 0.35       | 0.78 | 0.78 | 0.40       | 0.00 | 0.78 |
| Uniform Del:              | 28.4        | 25.7 | 14.3  | 67.4        | 69.4 | 42.6 | 56.3       | 61.7 | 61.7 | 62.0       | 0.0  | 65.8 |
| IncrcmntDel:              | 0.5         | 0.1  | 0.3   | 1.4         | 6.2  | 0.3  | 0.2        | 8.6  | 8.6  | 0.4        | 0.0  | 10.7 |
| InitQueueDel:             | 0.0         | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 0.00 | 1.00 |
| Delay/Veh:                | 28.9        | 25.8 | 14.7  | 68.9        | 75.6 | 42.9 | 56.5       | 70.3 | 70.3 | 62.4       | 0.0  | 76.5 |
| User DelAdj:              | 1.00        | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.9        | 25.8 | 14.7  | 68.9        | 75.6 | 42.9 | 56.5       | 70.3 | 70.3 | 62.4       | 0.0  | 76.5 |
| LOS by Move:              | C           | C    | B     | E           | E-   | D    | E+         | E    | E    | E          | A    | E-   |
| HCM2kAvgQ:                | 15          | 13   | 14    | 3           | 8    | 5    | 5          | 15   | 15   | 5          | 0    | 12   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P AM

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 426  | 1297 | 540  | 68   | 482  | 131  | 147  | 1    | 188  | 138  | 0    | 129  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 426  | 1297 | 540  | 68   | 482  | 131  | 147  | 1    | 188  | 138  | 0    | 129  |
| Added Vol:     | 14   | 14   | 0    | 12   | 12   | 0    | 0    | 0    | 12   | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 440  | 1311 | 540  | 80   | 494  | 131  | 147  | 1    | 200  | 138  | 0    | 129  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 440  | 1311 | 540  | 80   | 494  | 131  | 147  | 1    | 200  | 138  | 0    | 129  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 440  | 1311 | 540  | 80   | 494  | 131  | 147  | 1    | 200  | 138  | 0    | 129  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 440  | 1311 | 540  | 80   | 494  | 131  | 147  | 1    | 200  | 138  | 0    | 129  |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.27 | 0.01 | 0.72 | 1.35 | 0.00 | 0.65 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2228 | 7    | 1302 | 2360 | 0    | 1140 |

| Capacity Analysis Module: |      |      |       |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|-------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.25 | 0.23 | 0.31  | 0.05 | 0.09 | 0.07 | 0.07 | 0.15 | 0.15 | 0.06 | 0.00 | 0.11 |
| Crit Moves:               | ***  |      |       |      | ***  |      |      | ***  |      |      |      | ***  |
| Green Time:               | 77.0 | 79.8 | 102.5 | 16.0 | 17.4 | 48.3 | 30.9 | 30.9 | 30.9 | 22.7 | 0.0  | 22.7 |
| Volume/Cap:               | 0.52 | 0.46 | 0.48  | 0.46 | 0.80 | 0.25 | 0.34 | 0.80 | 0.80 | 0.41 | 0.00 | 0.80 |
| Uniform Del:              | 28.8 | 26.1 | 14.9  | 67.9 | 69.6 | 42.2 | 55.8 | 61.6 | 61.6 | 62.5 | 0.0  | 66.4 |
| IncrcmntDel:              | 0.6  | 0.1  | 0.3   | 1.9  | 7.1  | 0.2  | 0.2  | 9.8  | 9.8  | 0.4  | 0.0  | 12.5 |
| InitQueueDel:             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 29.3 | 26.2 | 15.2  | 69.8 | 76.7 | 42.4 | 56.0 | 71.4 | 71.4 | 63.0 | 0.0  | 78.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 29.3 | 26.2 | 15.2  | 69.8 | 76.7 | 42.4 | 56.0 | 71.4 | 71.4 | 63.0 | 0.0  | 78.9 |
| LOS by Move:              | C    | C    | B     | E    | E-   | D    | E+   | E    | E    | E    | A    | E-   |
| HCM2kAvgQ:                | 16   | 13   | 14    | 4    | 8    | 5    | 5    | 15   | 15   | 5    | 0    | 12   |

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

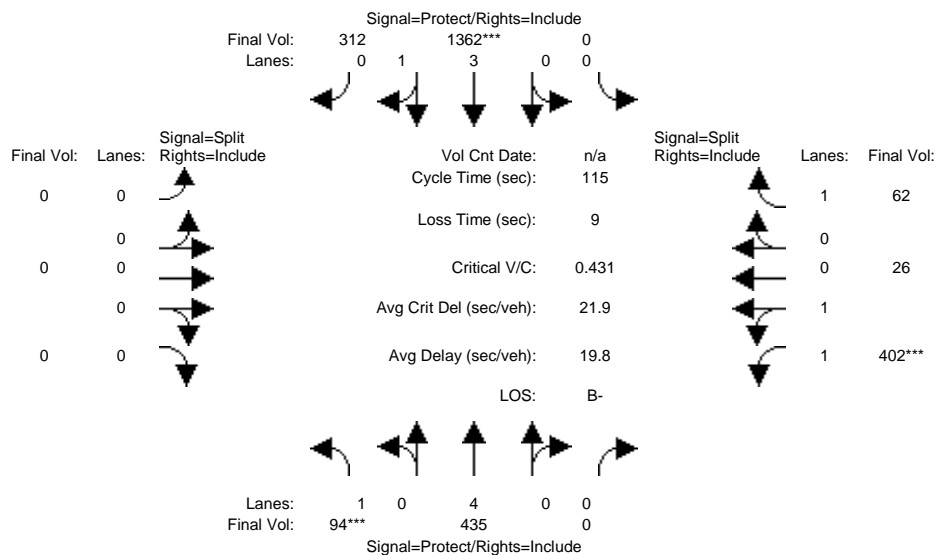


Summary Scenario Comparison Report (With Average Critical Delay)  
Future Volume Alternative

| Intersection                               | Existing MD |               |          |                    | Existing+P MD |               |          |                    | Bkgd MD |               |          |             |                    | Bkgd+P MD           |     |               |          |                    |
|--|-------------|---------------|----------|--------------------|---------------|---------------|----------|--------------------|---------|---------------|----------|-------------|--------------------|---------------------|-----|---------------|----------|--------------------|
|  | LOS         | Avg Del (sec) | Crit V/C | Avg Crit Del (sec) | LOS           | Avg Del (sec) | Crit V/C | Avg Crit Del (sec) | LOS     | Avg Del (sec) | Crit V/C | Crit Change | Avg Crit Del (sec) | Avg Crit Del Change | LOS | Avg Del (sec) | Crit V/C | Avg Crit Del (sec) |
| #1 Mathilda Ave & SR 237 WB                | B-          | 19.8          | 0.431    | 21.9               | B-            | 20.0          | 0.434    | 22.1               | B       | 17.0          | 0.650    | + 0.216     | 19.2               | - 2.9               | B   | 17.2          | 0.653    | 19.3               |
| #2 Mathilda Ave & SR 237 EB                | B           | 17.7          | 0.650    | 35.0               | B             | 17.7          | 0.655    | 35.1               | C       | 25.1          | 0.925    | + 0.270     | 57.2               | + 22.1              | C   | 25.3          | 0.929    | 58.0               |
| #3 Mathilda Ave & Ross Dr                  | B           | 16.7          | 0.339    | 10.9               | B             | 16.9          | 0.343    | 11.2               | B       | 14.3          | 0.462    | + 0.119     | 9.5                | - 1.8               | B   | 14.5          | 0.467    | 9.7                |
| #4 Mathilda Ave & Almanor Ave              | C+          | 21.9          | 0.321    | 16.9               | C+            | 20.9          | 0.337    | 13.5               | C       | 30.9          | 0.558    | + 0.221     | 28.6               | + 15.1              | C   | 30.9          | 0.566    | 28.5               |
| #5 Mathilda Ave & San Aleso Ave            | A           | 9.8           | 0.275    | 7.1                | B+            | 10.0          | 0.282    | 7.1                | A       | 9.8           | 0.360    | + 0.078     | 7.6                | + 0.6               | B+  | 10.2          | 0.366    | 7.7                |
| #6 Mathilda Ave & Maude Ave                | C           | 30.2          | 0.440    | 29.2               | C             | 29.6          | 0.439    | 28.5               | C-      | 34.0          | 0.700    | + 0.261     | 34.7               | + 6.2               | C-  | 34.1          | 0.706    | 34.7               |
| #7 Mathilda Ave & Indio Ave                | B+          | 10.4          | 0.380    | 7.4                | B+            | 10.4          | 0.388    | 7.4                | B+      | 10.6          | 0.521    | + 0.133     | 8.8                | + 1.4               | B+  | 10.7          | 0.530    | 8.9                |
| #8 Mathilda Ave & California Ave           | B           | 17.6          | 0.391    | 14.5               | B             | 17.4          | 0.396    | 14.4               | B-      | 19.1          | 0.510    | + 0.114     | 16.5               | + 2.1               | B-  | 19.0          | 0.515    | 16.4               |
| #9 San Aleso Ave & Ahwanee Ave             | A           | 2.4           | 0.048    | 2.4                | B             | 5.6           | 0.145    | 5.6                | A       | 2.5           | 0.054    | - 0.091     | 2.5                | - 3.1               | B   | 5.6           | 0.149    | 5.6                |
| #10 Borregas Ave & Ahwanee Ave             | A           | 7.9           | 0.169    | 7.9                | A             | 8.2           | 0.247    | 8.2                | A       | 7.9           | 0.182    | - 0.065     | 7.9                | - 0.3               | A   | 8.3           | 0.260    | 8.3                |
| #11 Borregas Ave & Duane Ave               | B           | 2.3           | 0.049    | 2.3                | B             | 2.4           | 0.051    | 2.4                | B       | 2.2           | 0.050    | - 0.000     | 2.2                | - 0.2               | B   | 2.3           | 0.052    | 2.3                |
| #12 Borregas Ave/Sunnyvale Ave & Maude Ave | C-          | 32.7          | 0.381    | 34.4               | C-            | 32.9          | 0.388    | 34.8               | C-      | 32.4          | 0.416    | + 0.029     | 33.7               | - 1.1               | C-  | 32.6          | 0.422    | 34.1               |
| #13 Morse Ave & Ahwanee Ave                | B           | 5.9           | 0.146    | 5.9                | B             | 5.7           | 0.156    | 5.7                | B       | 5.8           | 0.147    | - 0.008     | 5.8                | + 0.2               | B   | 5.6           | 0.158    | 5.6                |
| #14 Morse Ave & Duane Ave                  | A           | 8.8           | 0.295    | 8.8                | A             | 8.9           | 0.299    | 8.9                | A       | 9.0           | 0.314    | + 0.014     | 9.0                | + 0.1               | A   | 9.1           | 0.319    | 9.1                |
| #15 Morse Ave & Maude Ave                  | B           | 4.3           | 0.150    | 4.3                | B             | 4.2           | 0.152    | 4.2                | B       | 4.3           | 0.165    | + 0.013     | 4.3                | + 0.1               | B   | 4.2           | 0.168    | 4.2                |
| #16 Fair Oaks Ave & Weddell Ave            | C+          | 20.0          | 0.239    | 22.8               | B-            | 19.9          | 0.242    | 22.8               | B-      | 19.5          | 0.338    | + 0.095     | 23.5               | + 0.7               | B-  | 19.4          | 0.341    | 23.5               |
| #17 Fair Oaks Ave & US 101 NB              | C+          | 20.0          | 0.581    | 25.1               | B-            | 19.9          | 0.584    | 25.1               | C+      | 22.2          | 0.766    | + 0.182     | 29.5               | + 4.4               | C+  | 22.1          | 0.768    | 29.6               |
| #18 Fair Oaks Ave & Ahwanee Ave            | B-          | 18.2          | 0.384    | 16.6               | B-            | 19.2          | 0.396    | 17.4               | B       | 17.4          | 0.441    | + 0.045     | 16.0               | - 1.4               | B-  | 18.4          | 0.453    | 16.8               |
| #19 Fair Oaks Ave & Duane Ave              | C           | 30.5          | 0.550    | 33.6               | C             | 30.7          | 0.556    | 34.0               | C       | 29.9          | 0.635    | + 0.079     | 34.3               | + 0.3               | C   | 30.2          | 0.641    | 34.8               |
| #20 Fair Oaks Ave & Wolfe Rd               | B           | 13.4          | 0.286    | 18.8               | B             | 13.1          | 0.290    | 19.0               | B       | 14.0          | 0.351    | + 0.061     | 19.8               | + 0.8               | B   | 13.8          | 0.355    | 19.9               |
| #21 Fair Oaks Ave & Maude Ave              | C           | 29.0          | 0.413    | 27.9               | C             | 29.3          | 0.434    | 28.6               | C       | 29.1          | 0.477    | + 0.043     | 28.2               | - 0.4               | C   | 29.5          | 0.499    | 29.0               |
| #22 Wolfe Rd & Maude Ave                   | C           | 2.7           | 0.178    | 2.7                | C             | 2.7           | 0.180    | 2.7                | C       | 2.7           | 0.231    | + 0.051     | 2.7                | - 0.0               | C   | 2.7           | 0.234    | 2.7                |
| #23 Wolfe Rd & Arques Ave                  | D           | 39.3          | 0.291    | 38.9               | D             | 39.1          | 0.291    | 38.9               | D+      | 38.8          | 0.310    | + 0.019     | 38.5               | - 0.4               | D+  | 38.6          | 0.312    | 38.4               |
| #24 Wolfe Rd & Central Expwy Ramps         | D           | 41.3          | 0.371    | 46.3               | D             | 41.7          | 0.382    | 46.4               | D       | 42.8          | 0.423    | + 0.041     | 47.0               | + 0.6               | D   | 41.0          | 0.433    | 43.6               |

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing MD

Intersection #1: Mathilda Ave & SR 237 WB



| Street Name: | Mathilda Ave |     |     |             |     |     | SR 237 WB  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 0   | 7           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 402        | 26   | 62   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 402        | 26   | 62   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 402        | 26   | 62   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 402        | 26   | 62   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 402        | 26   | 62   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 402        | 26   | 62   |

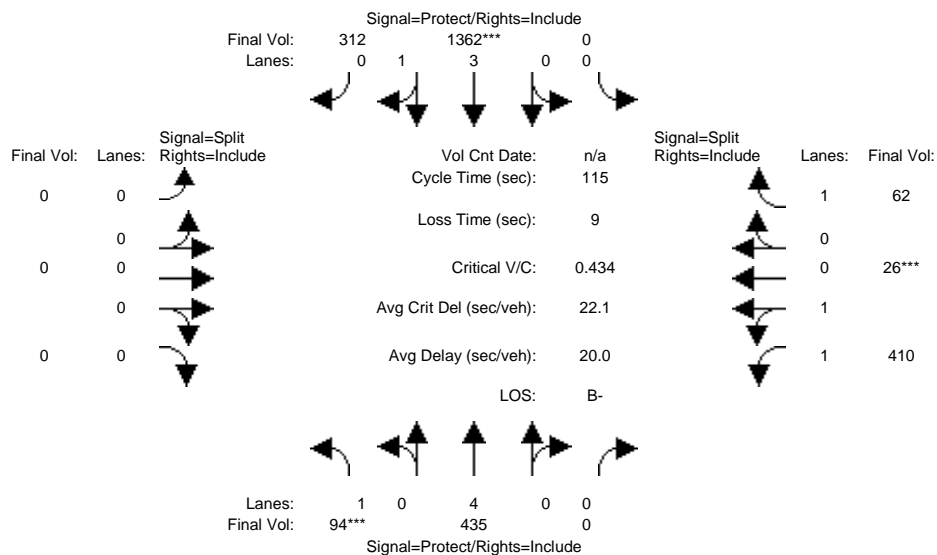
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.95 | 0.92       | 1.00 | 0.92 | 0.93       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 4.00 | 0.00 | 0.00        | 3.22 | 0.78 | 0.00       | 0.00 | 0.00 | 1.88       | 0.12 | 1.00 |
| Final Sat.:             | 1750        | 7600 | 0    | 0           | 6100 | 1397 | 0          | 0    | 0    | 3334       | 216  | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.05        | 0.06 | 0.00 | 0.00        | 0.22 | 0.22 | 0.00       | 0.00 | 0.00 | 0.12       | 0.12 | 0.04 |
| Crit Moves:               | ***         |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 14.3        | 73.9 | 0.0  | 0.0         | 59.5 | 59.5 | 0.0        | 0.0  | 0.0  | 32.1       | 32.1 | 32.1 |
| Volume/Cap:               | 0.43        | 0.09 | 0.00 | 0.00        | 0.43 | 0.43 | 0.00       | 0.00 | 0.00 | 0.43       | 0.43 | 0.13 |
| Uniform Del:              | 46.6        | 7.8  | 0.0  | 0.0         | 17.2 | 17.2 | 0.0        | 0.0  | 0.0  | 33.9       | 33.9 | 30.9 |
| IncrcmntDel:              | 1.4         | 0.0  | 0.0  | 0.0         | 0.1  | 0.1  | 0.0        | 0.0  | 0.0  | 0.3        | 0.3  | 0.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 47.9        | 7.8  | 0.0  | 0.0         | 17.3 | 17.3 | 0.0        | 0.0  | 0.0  | 34.2       | 34.2 | 31.1 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 47.9        | 7.8  | 0.0  | 0.0         | 17.3 | 17.3 | 0.0        | 0.0  | 0.0  | 34.2       | 34.2 | 31.1 |
| LOS by Move:              | D           | A    | A    | A           | B    | B    | A          | A    | A    | C-         | C-   | C    |
| HCM2kAvgQ:                | 3           | 1    | 0    | 0           | 9    | 9    | 0          | 0    | 0    | 7          | 7    | 2    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #1: Mathilda Ave & SR 237 WB



| Street Name: | Mathilda Ave |     |     |             |     |     | SR 237 WB  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 0   | 7           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 402        | 26   | 62   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 402        | 26   | 62   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 8          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 410        | 26   | 62   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 410        | 26   | 62   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 410        | 26   | 62   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 94          | 435  | 0    | 0           | 1362 | 312  | 0          | 0    | 0    | 410        | 26   | 62   |

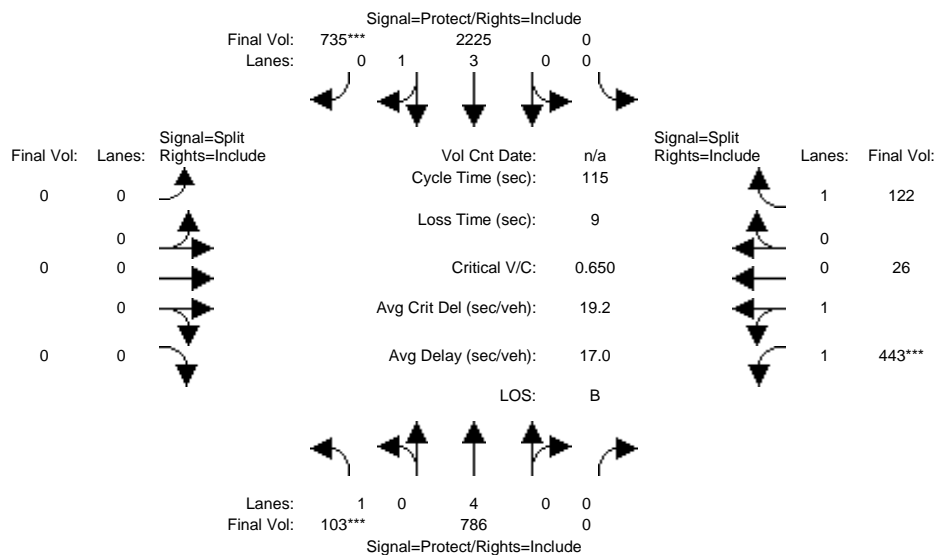
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.95 | 0.92       | 1.00 | 0.92 | 0.93       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 4.00 | 0.00 | 0.00        | 3.22 | 0.78 | 0.00       | 0.00 | 0.00 | 1.88       | 0.12 | 1.00 |
| Final Sat.:             | 1750        | 7600 | 0    | 0           | 6100 | 1397 | 0          | 0    | 0    | 3338       | 212  | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.05        | 0.06 | 0.00 | 0.00        | 0.22 | 0.22 | 0.00       | 0.00 | 0.00 | 0.12       | 0.12 | 0.04 |
| Crit Moves:               | ****        |      |      |             | **** |      |            |      |      | ****       |      |      |
| Green Time:               | 14.2        | 73.4 | 0.0  | 0.0         | 59.2 | 59.2 | 0.0        | 0.0  | 0.0  | 32.6       | 32.6 | 32.6 |
| Volume/Cap:               | 0.43        | 0.09 | 0.00 | 0.00        | 0.43 | 0.43 | 0.00       | 0.00 | 0.00 | 0.43       | 0.43 | 0.13 |
| Uniform Del:              | 46.6        | 8.0  | 0.0  | 0.0         | 17.4 | 17.4 | 0.0        | 0.0  | 0.0  | 33.7       | 33.7 | 30.6 |
| IncrcmntDel:              | 1.4         | 0.0  | 0.0  | 0.0         | 0.1  | 0.1  | 0.0        | 0.0  | 0.0  | 0.3        | 0.3  | 0.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 48.0        | 8.0  | 0.0  | 0.0         | 17.5 | 17.5 | 0.0        | 0.0  | 0.0  | 34.0       | 34.0 | 30.7 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 48.0        | 8.0  | 0.0  | 0.0         | 17.5 | 17.5 | 0.0        | 0.0  | 0.0  | 34.0       | 34.0 | 30.7 |
| LOS by Move:              | D           | A    | A    | A           | B    | B    | A          | A    | A    | C-         | C-   | C    |
| HCM2kAvgQ:                | 3           | 1    | 0    | 0           | 9    | 9    | 0          | 0    | 0    | 7          | 7    | 2    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd MD

Intersection #1: Mathilda Ave & SR 237 WB



| Street Name: | Mathilda Ave |     |     |             |     |     | SR 237 WB  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 0   | 7           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 443        | 26   | 122  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 443        | 26   | 122  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 443        | 26   | 122  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 443        | 26   | 122  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 443        | 26   | 122  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 443        | 26   | 122  |

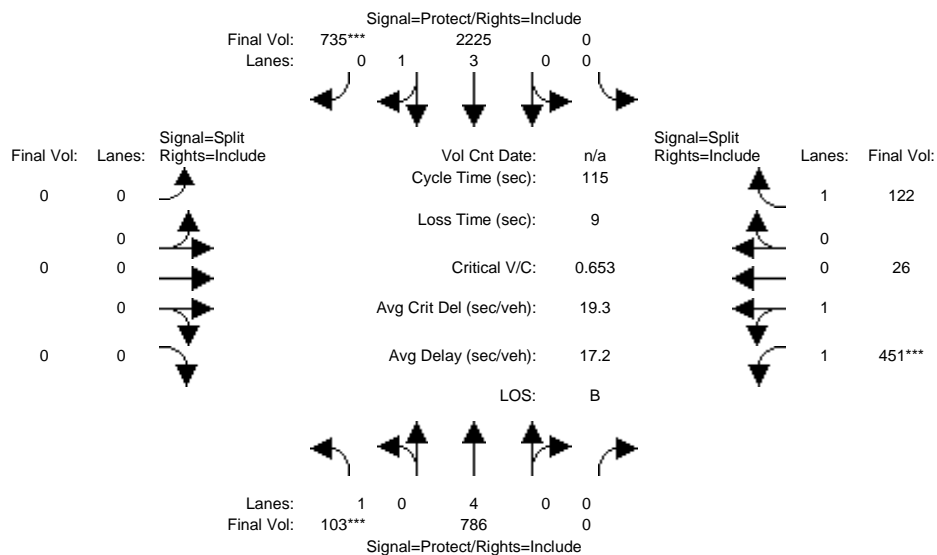
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.95 | 0.92       | 1.00 | 0.92 | 0.93       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 4.00 | 0.00 | 0.00        | 3.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.89       | 0.11 | 1.00 |
| Final Sat.:             | 1750        | 7600 | 0    | 0           | 5699 | 1800 | 0          | 0    | 0    | 3353       | 197  | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.06        | 0.10 | 0.00 | 0.00        | 0.39 | 0.41 | 0.00       | 0.00 | 0.00 | 0.13       | 0.13 | 0.07 |
| Crit Moves:               | ****        |      |      |             |      | **** |            |      |      | ****       |      |      |
| Green Time:               | 10.4        | 82.6 | 0.0  | 0.0         | 72.2 | 72.2 | 0.0        | 0.0  | 0.0  | 23.4       | 23.4 | 23.4 |
| Volume/Cap:               | 0.65        | 0.14 | 0.00 | 0.00        | 0.62 | 0.65 | 0.00       | 0.00 | 0.00 | 0.65       | 0.65 | 0.34 |
| Uniform Del:              | 50.5        | 5.1  | 0.0  | 0.0         | 13.1 | 13.4 | 0.0        | 0.0  | 0.0  | 42.1       | 42.1 | 39.2 |
| IncrcmntDel:              | 9.2         | 0.0  | 0.0  | 0.0         | 0.3  | 0.3  | 0.0        | 0.0  | 0.0  | 2.1        | 2.1  | 0.6  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 59.7        | 5.1  | 0.0  | 0.0         | 13.3 | 13.8 | 0.0        | 0.0  | 0.0  | 44.2       | 44.2 | 39.8 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 59.7        | 5.1  | 0.0  | 0.0         | 13.3 | 13.8 | 0.0        | 0.0  | 0.0  | 44.2       | 44.2 | 39.8 |
| LOS by Move:              | E+          | A    | A    | A           | B    | B    | A          | A    | A    | D          | D    | D    |
| HCM2kAvgQ:                | 4           | 2    | 0    | 0           | 16   | 17   | 0          | 0    | 0    | 9          | 9    | 4    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P MD

Intersection #1: Mathilda Ave & SR 237 WB



| Street Name: | Mathilda Ave |     |     |             |     |     | SR 237 WB  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 0   | 7           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 443        | 26   | 122  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 443        | 26   | 122  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 8          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 451        | 26   | 122  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 451        | 26   | 122  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 451        | 26   | 122  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 103         | 786  | 0    | 0           | 2225 | 735  | 0          | 0    | 0    | 451        | 26   | 122  |

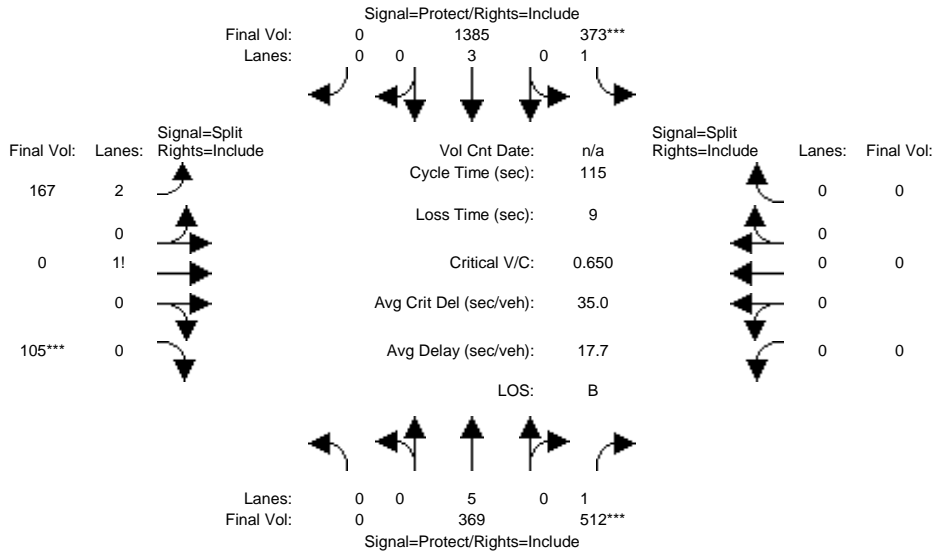
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.95 | 0.92       | 1.00 | 0.92 | 0.93       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 4.00 | 0.00 | 0.00        | 3.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.89       | 0.11 | 1.00 |
| Final Sat.:             | 1750        | 7600 | 0    | 0           | 5699 | 1800 | 0          | 0    | 0    | 3356       | 193  | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.06        | 0.10 | 0.00 | 0.00        | 0.39 | 0.41 | 0.00       | 0.00 | 0.00 | 0.13       | 0.13 | 0.07 |
| Crit Moves:               | ****        |      |      |             |      | **** |            |      |      | ****       |      |      |
| Green Time:               | 10.4        | 82.3 | 0.0  | 0.0         | 72.0 | 72.0 | 0.0        | 0.0  | 0.0  | 23.7       | 23.7 | 23.7 |
| Volume/Cap:               | 0.65        | 0.14 | 0.00 | 0.00        | 0.62 | 0.65 | 0.00       | 0.00 | 0.00 | 0.65       | 0.65 | 0.34 |
| Uniform Del:              | 50.6        | 5.2  | 0.0  | 0.0         | 13.2 | 13.6 | 0.0        | 0.0  | 0.0  | 41.9       | 41.9 | 39.0 |
| IncrementDel:             | 9.4         | 0.0  | 0.0  | 0.0         | 0.3  | 0.3  | 0.0        | 0.0  | 0.0  | 2.1        | 2.1  | 0.6  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 60.0        | 5.2  | 0.0  | 0.0         | 13.5 | 14.0 | 0.0        | 0.0  | 0.0  | 44.0       | 44.0 | 39.5 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 60.0        | 5.2  | 0.0  | 0.0         | 13.5 | 14.0 | 0.0        | 0.0  | 0.0  | 44.0       | 44.0 | 39.5 |
| LOS by Move:              | E+          | A    | A    | A           | B    | B    | A          | A    | A    | D          | D    | D    |
| HCM2kAvgQ:                | 4           | 2    | 0    | 0           | 16   | 17   | 0          | 0    | 0    | 9          | 9    | 4    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing MD

Intersection #2: Mathilda Ave & SR 237 EB



| Street Name: | Mathilda Ave |     |     |             |     |     | SR 237 EB  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0            | 10  | 10  | 7           | 10  | 0   | 10         | 10  | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 0           | 369  | 512  | 373         | 1385 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 0           | 369  | 512  | 373         | 1385 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 0           | 369  | 512  | 373         | 1385 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 0           | 369  | 512  | 373         | 1385 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 0           | 369  | 512  | 373         | 1385 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 0           | 369  | 512  | 373         | 1385 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |

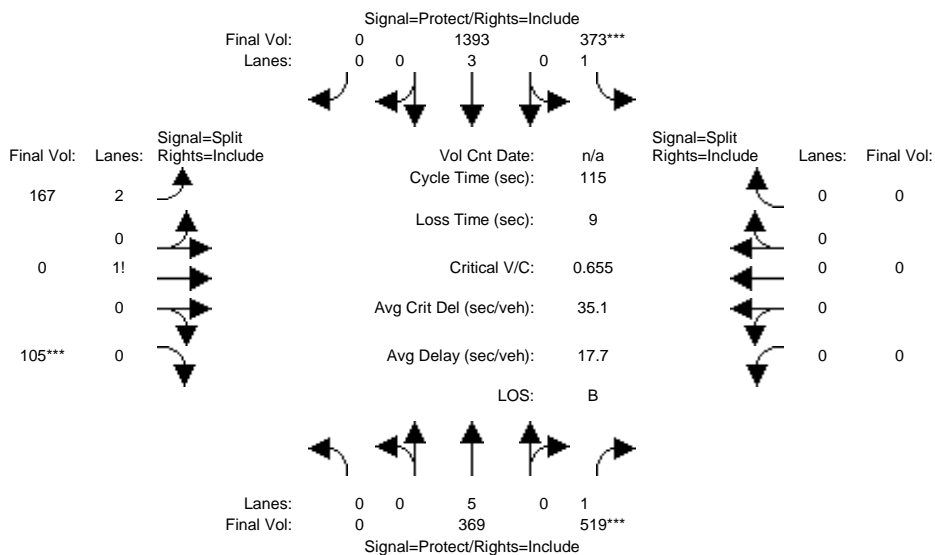
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.83       | 1.00 | 0.95 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 0.00        | 5.00 | 1.00 | 1.00        | 3.00 | 0.00 | 2.38       | 0.00 | 0.62 | 0.00       | 0.00 | 0.00 |
| Final Sat.:             | 0           | 9500 | 1750 | 1750        | 5700 | 0    | 3744       | 0    | 1121 | 0          | 0    | 0    |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.00        | 0.04 | 0.29 | 0.21        | 0.24 | 0.00 | 0.04       | 0.00 | 0.09 | 0.00       | 0.00 | 0.00 |
| Crit Moves:               |             |      | **** | ****        |      |      |            |      | **** |            |      |      |
| Green Time:               | 0.0         | 51.7 | 51.7 | 37.7        | 89.4 | 0.0  | 16.6       | 0.0  | 16.6 | 0.0        | 0.0  | 0.0  |
| Volume/Cap:               | 0.00        | 0.09 | 0.65 | 0.65        | 0.31 | 0.00 | 0.31       | 0.00 | 0.65 | 0.00       | 0.00 | 0.00 |
| Uniform Del:              | 0.0         | 18.1 | 24.6 | 33.0        | 3.8  | 0.0  | 44.1       | 0.0  | 46.5 | 0.0        | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0         | 0.0  | 1.9  | 2.6         | 0.0  | 0.0  | 0.2        | 0.0  | 3.6  | 0.0        | 0.0  | 0.0  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 0.00        | 1.00 | 1.00 | 1.00        | 1.00 | 0.00 | 1.00       | 0.00 | 1.00 | 0.00       | 0.00 | 0.00 |
| Delay/Veh:                | 0.0         | 18.1 | 26.5 | 35.7        | 3.8  | 0.0  | 44.3       | 0.0  | 50.1 | 0.0        | 0.0  | 0.0  |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0         | 18.1 | 26.5 | 35.7        | 3.8  | 0.0  | 44.3       | 0.0  | 50.1 | 0.0        | 0.0  | 0.0  |
| LOS by Move:              | A           | B-   | C    | D+          | A    | A    | D          | A    | D    | A          | A    | A    |
| HCM2kAvgQ:                | 0           | 1    | 15   | 12          | 5    | 0    | 3          | 0    | 7    | 0          | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #2: Mathilda Ave & SR 237 EB



| Street Name: | Mathilda Ave |     |     |             |     |     | SR 237 EB  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0            | 10  | 10  | 7           | 10  | 0   | 10         | 10  | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 0           | 369  | 512  | 373         | 1385 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 0           | 369  | 512  | 373         | 1385 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| Added Vol:     | 0           | 0    | 7    | 0           | 8    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 0           | 369  | 519  | 373         | 1393 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 0           | 369  | 519  | 373         | 1393 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 0           | 369  | 519  | 373         | 1393 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 0           | 369  | 519  | 373         | 1393 | 0    | 167        | 0    | 105  | 0          | 0    | 0    |

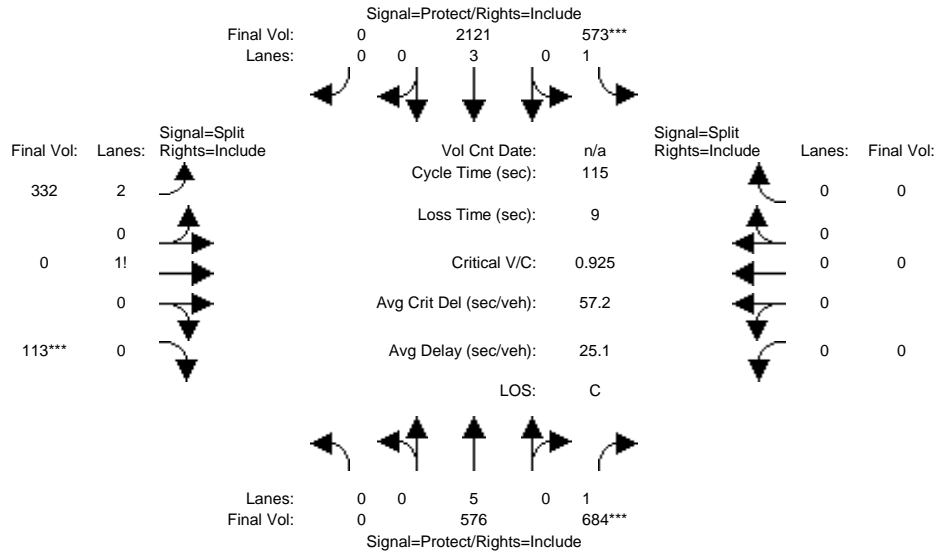
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.83       | 1.00 | 0.95 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 0.00        | 5.00 | 1.00 | 1.00        | 3.00 | 0.00 | 2.38       | 0.00 | 0.62 | 0.00       | 0.00 | 0.00 |
| Final Sat.:             | 0           | 9500 | 1750 | 1750        | 5700 | 0    | 3744       | 0    | 1121 | 0          | 0    | 0    |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.00        | 0.04 | 0.30 | 0.21        | 0.24 | 0.00 | 0.04       | 0.00 | 0.09 | 0.00       | 0.00 | 0.00 |
| Crit Moves:               |             |      | **** | ****        |      |      |            |      | **** |            |      |      |
| Green Time:               | 0.0         | 52.1 | 52.1 | 37.4        | 89.5 | 0.0  | 16.5       | 0.0  | 16.5 | 0.0        | 0.0  | 0.0  |
| Volume/Cap:               | 0.00        | 0.09 | 0.65 | 0.65        | 0.31 | 0.00 | 0.31       | 0.00 | 0.65 | 0.00       | 0.00 | 0.00 |
| Uniform Del:              | 0.0         | 17.9 | 24.5 | 33.2        | 3.7  | 0.0  | 44.2       | 0.0  | 46.6 | 0.0        | 0.0  | 0.0  |
| IncrementDel:             | 0.0         | 0.0  | 2.0  | 2.7         | 0.0  | 0.0  | 0.2        | 0.0  | 3.7  | 0.0        | 0.0  | 0.0  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 0.00        | 1.00 | 1.00 | 1.00        | 1.00 | 0.00 | 1.00       | 0.00 | 1.00 | 0.00       | 0.00 | 0.00 |
| Delay/Veh:                | 0.0         | 17.9 | 26.4 | 36.0        | 3.8  | 0.0  | 44.4       | 0.0  | 50.3 | 0.0        | 0.0  | 0.0  |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0         | 17.9 | 26.4 | 36.0        | 3.8  | 0.0  | 44.4       | 0.0  | 50.3 | 0.0        | 0.0  | 0.0  |
| LOS by Move:              | A           | B    | C    | D+          | A    | A    | D          | A    | D    | A          | A    | A    |
| HCM2kAvgQ:                | 0           | 1    | 15   | 12          | 5    | 0    | 3          | 0    | 7    | 0          | 0    | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd MD

Intersection #2: Mathilda Ave & SR 237 EB



| Street Name: | Mathilda Ave |     |     |             |     |     | SR 237 EB  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0            | 10  | 10  | 7           | 10  | 0   | 10         | 10  | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |

| Saturation Flow Module: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.84 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 5.00 | 1.00 | 1.00 | 3.00 | 0.00 | 2.52 | 0.00 | 0.48 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 9500 | 1750 | 1750 | 5700 | 0    | 4013 | 0    | 843  | 0    | 0    | 0    |

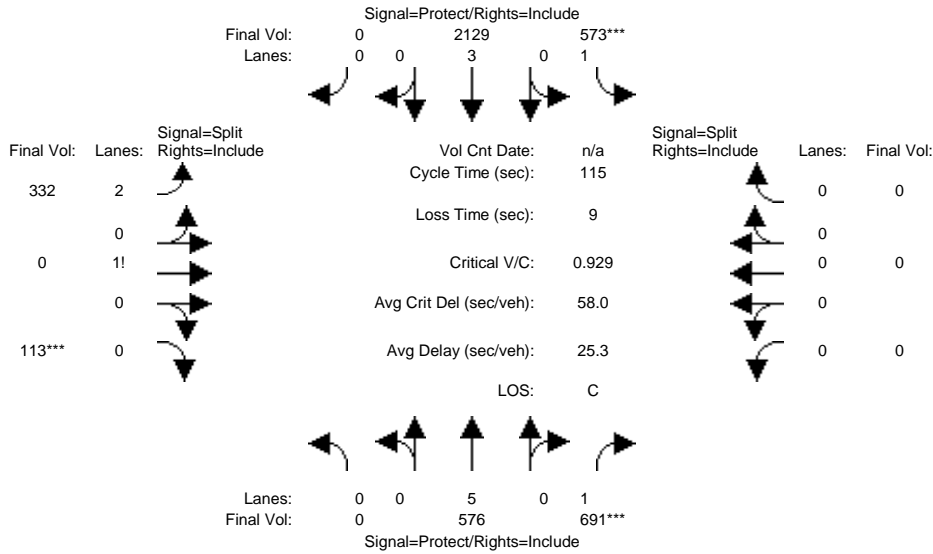
| Capacity Analysis Module: | 0.00 | 0.06 | 0.39 | 0.33 | 0.37 | 0.00 | 0.08 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.06 | 0.39 | 0.33 | 0.37 | 0.00 | 0.08 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               |      |      | **** | **** |      |      |      |      | **** |      |      |      |
| Green Time:               | 0.0  | 48.6 | 48.6 | 40.7 | 89.3 | 0.0  | 16.7 | 0.0  | 16.7 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.14 | 0.92 | 0.92 | 0.48 | 0.00 | 0.57 | 0.00 | 0.92 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 20.4 | 31.5 | 35.7 | 4.6  | 0.0  | 45.8 | 0.0  | 48.5 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.0  | 17.4 | 19.8 | 0.1  | 0.0  | 1.0  | 0.0  | 23.7 | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 20.4 | 48.8 | 55.5 | 4.6  | 0.0  | 46.9 | 0.0  | 72.3 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 20.4 | 48.8 | 55.5 | 4.6  | 0.0  | 46.9 | 0.0  | 72.3 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | C+   | D    | E+   | A    | A    | D    | A    | E    | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 2    | 28   | 23   | 9    | 0    | 6    | 0    | 13   | 0    | 0    | 0    |

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



Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P MD

Intersection #2: Mathilda Ave & SR 237 EB



| Street Name: | Mathilda Ave |     |     |             |     |     | SR 237 EB  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0            | 10  | 10  | 7           | 10  | 0   | 10         | 10  | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 576  | 684  | 573  | 2121 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 7    | 0    | 8    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 576  | 691  | 573  | 2129 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 576  | 691  | 573  | 2129 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 576  | 691  | 573  | 2129 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 576  | 691  | 573  | 2129 | 0    | 332  | 0    | 113  | 0    | 0    | 0    |

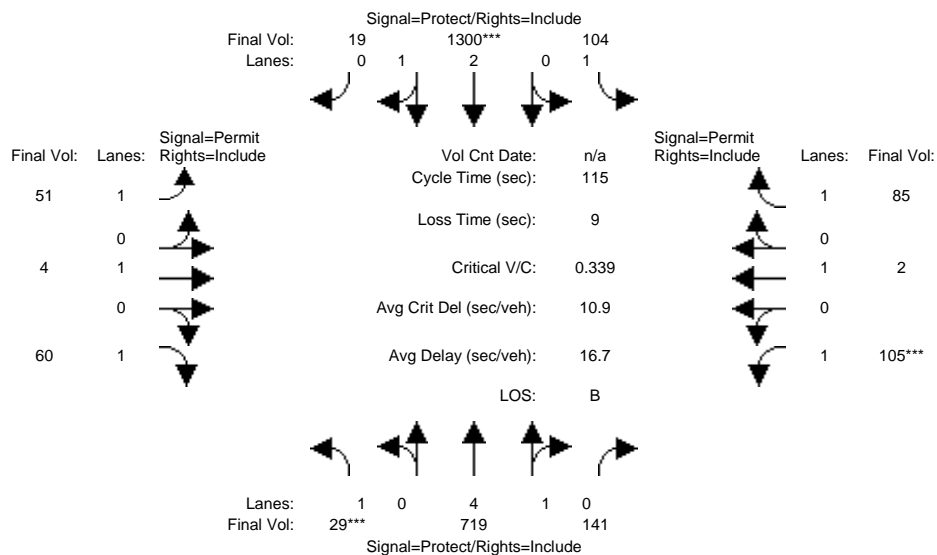
| Saturation Flow Module: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.84 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 5.00 | 1.00 | 1.00 | 3.00 | 0.00 | 2.52 | 0.00 | 0.48 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 9500 | 1750 | 1750 | 5700 | 0    | 4013 | 0    | 843  | 0    | 0    | 0    |

| Capacity Analysis Module: | 0.00 | 0.06 | 0.39 | 0.33 | 0.37 | 0.00 | 0.08 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.06 | 0.39 | 0.33 | 0.37 | 0.00 | 0.08 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               |      |      | **** | **** |      |      |      |      | **** |      |      |      |
| Green Time:               | 0.0  | 48.9 | 48.9 | 40.5 | 89.4 | 0.0  | 16.6 | 0.0  | 16.6 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.14 | 0.93 | 0.93 | 0.48 | 0.00 | 0.57 | 0.00 | 0.93 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 20.2 | 31.4 | 35.8 | 4.5  | 0.0  | 45.9 | 0.0  | 48.6 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.0  | 18.0 | 20.6 | 0.1  | 0.0  | 1.0  | 0.0  | 24.6 | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 20.3 | 49.4 | 56.4 | 4.6  | 0.0  | 47.0 | 0.0  | 73.2 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 20.3 | 49.4 | 56.4 | 4.6  | 0.0  | 47.0 | 0.0  | 73.2 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | C+   | D    | E+   | A    | A    | D    | A    | E    | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 2    | 28   | 23   | 9    | 0    | 6    | 0    | 13   | 0    | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing MD

Intersection #3: Mathilda Ave & Ross Dr



| Street Name: | Mathilda Ave |     |     |             |     |     | Ross Dr    |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 29   | 719  | 141  | 104  | 1300 | 19   | 51   | 4    | 60   | 105  | 2    | 85   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 29   | 719  | 141  | 104  | 1300 | 19   | 51   | 4    | 60   | 105  | 2    | 85   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 29   | 719  | 141  | 104  | 1300 | 19   | 51   | 4    | 60   | 105  | 2    | 85   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 29   | 719  | 141  | 104  | 1300 | 19   | 51   | 4    | 60   | 105  | 2    | 85   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 29   | 719  | 141  | 104  | 1300 | 19   | 51   | 4    | 60   | 105  | 2    | 85   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 29   | 719  | 141  | 104  | 1300 | 19   | 51   | 4    | 60   | 105  | 2    | 85   |

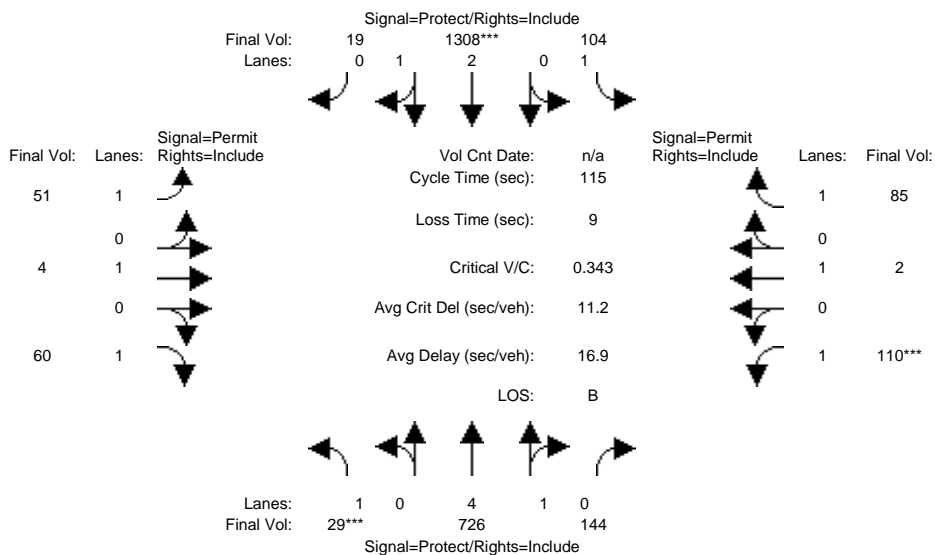
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.14 | 0.86 | 1.00 | 2.96 | 0.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7856 | 1541 | 1750 | 5519 | 81   | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.09 | 0.09 | 0.06 | 0.24 | 0.24 | 0.03 | 0.00 | 0.03 | 0.06 | 0.00 | 0.05 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 7.0  | 51.6 | 51.6 | 34.3 | 78.9 | 78.9 | 20.1 | 20.1 | 20.1 | 20.1 | 20.1 | 20.1 |
| Volume/Cap:               | 0.27 | 0.20 | 0.20 | 0.20 | 0.34 | 0.34 | 0.17 | 0.01 | 0.20 | 0.34 | 0.01 | 0.28 |
| Uniform Del:              | 51.6 | 19.2 | 19.2 | 30.1 | 7.4  | 7.4  | 40.3 | 39.2 | 40.5 | 41.7 | 39.2 | 41.2 |
| IncrcmntDel:              | 1.4  | 0.0  | 0.0  | 0.2  | 0.1  | 0.1  | 0.3  | 0.0  | 0.3  | 0.7  | 0.0  | 0.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 53.0 | 19.3 | 19.3 | 30.3 | 7.5  | 7.5  | 40.6 | 39.3 | 40.9 | 42.3 | 39.2 | 41.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 53.0 | 19.3 | 19.3 | 30.3 | 7.5  | 7.5  | 40.6 | 39.3 | 40.9 | 42.3 | 39.2 | 41.7 |
| LOS by Move:              | D-   | B-   | B-   | C    | A    | A    | D    | D    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 1    | 4    | 4    | 3    | 6    | 6    | 2    | 0    | 2    | 4    | 0    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #3: Mathilda Ave & Ross Dr



| Street Name: | Mathilda Ave |     |     |             |     |     | Ross Dr    |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Mathilda Ave NB |      |      | Mathilda Ave SB |      |      | Ross Dr EB |      |      | Ross Dr WB |      |      |
|----------------|-----------------|------|------|-----------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 29              | 719  | 141  | 104             | 1300 | 19   | 51         | 4    | 60   | 105        | 2    | 85   |
| Growth Adj:    | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 29              | 719  | 141  | 104             | 1300 | 19   | 51         | 4    | 60   | 105        | 2    | 85   |
| Added Vol:     | 0               | 7    | 3    | 0               | 8    | 0    | 0          | 0    | 0    | 5          | 0    | 0    |
| PasserByVol:   | 0               | 0    | 0    | 0               | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 29              | 726  | 144  | 104             | 1308 | 19   | 51         | 4    | 60   | 110        | 2    | 85   |
| User Adj:      | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 29              | 726  | 144  | 104             | 1308 | 19   | 51         | 4    | 60   | 110        | 2    | 85   |
| Reduct Vol:    | 0               | 0    | 0    | 0               | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 29              | 726  | 144  | 104             | 1308 | 19   | 51         | 4    | 60   | 110        | 2    | 85   |
| PCE Adj:       | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 29              | 726  | 144  | 104             | 1308 | 19   | 51         | 4    | 60   | 110        | 2    | 85   |

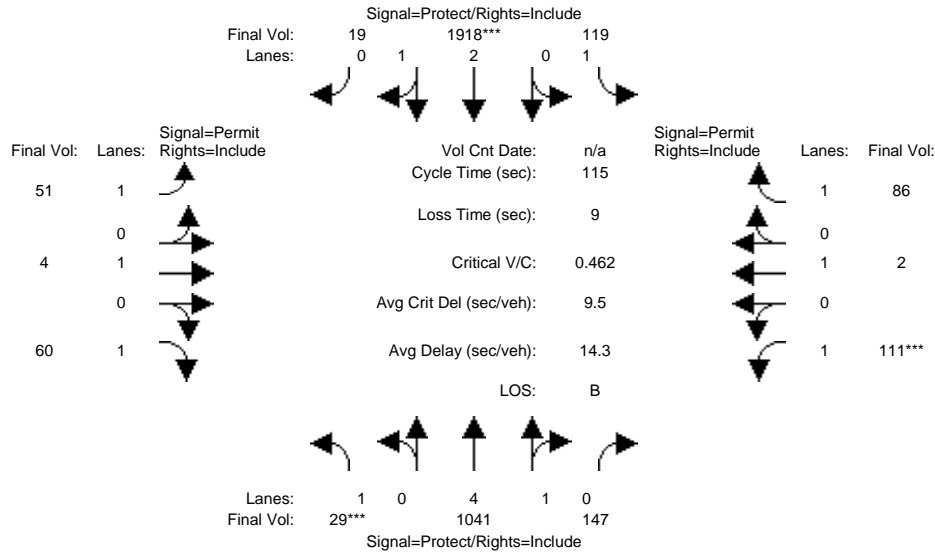
| Saturation Flow Module: | Mathilda Ave NB |      |      | Mathilda Ave SB |      |      | Ross Dr EB |      |      | Ross Dr WB |      |      |
|-------------------------|-----------------|------|------|-----------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900            | 1900 | 1900 | 1900            | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92            | 1.00 | 0.95 | 0.92            | 0.98 | 0.95 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00            | 4.14 | 0.86 | 1.00            | 2.96 | 0.04 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Sat.:             | 1750            | 7841 | 1555 | 1750            | 5520 | 80   | 1750       | 1900 | 1750 | 1750       | 1900 | 1750 |

| Capacity Analysis Module: | Mathilda Ave NB |      |      | Mathilda Ave SB |      |      | Ross Dr EB |      |      | Ross Dr WB |      |      |
|---------------------------|-----------------|------|------|-----------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.02            | 0.09 | 0.09 | 0.06            | 0.24 | 0.24 | 0.03       | 0.00 | 0.03 | 0.06       | 0.00 | 0.05 |
| Crit Moves:               | ****            |      |      |                 | **** |      |            |      |      | ****       |      |      |
| Green Time:               | 7.0             | 51.4 | 51.4 | 33.8            | 78.2 | 78.2 | 20.8       | 20.8 | 20.8 | 20.8       | 20.8 | 20.8 |
| Volume/Cap:               | 0.27            | 0.21 | 0.21 | 0.20            | 0.35 | 0.35 | 0.16       | 0.01 | 0.19 | 0.35       | 0.01 | 0.27 |
| Uniform Del:              | 51.6            | 19.4 | 19.4 | 30.5            | 7.7  | 7.7  | 39.8       | 38.7 | 40.0 | 41.2       | 38.7 | 40.6 |
| IncrcmntDel:              | 1.4             | 0.0  | 0.0  | 0.2             | 0.1  | 0.1  | 0.2        | 0.0  | 0.3  | 0.7        | 0.0  | 0.5  |
| InitQueueDel:             | 0.0             | 0.0  | 0.0  | 0.0             | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 53.0            | 19.4 | 19.4 | 30.7            | 7.8  | 7.8  | 40.0       | 38.7 | 40.3 | 41.9       | 38.7 | 41.1 |
| User DelAdj:              | 1.00            | 1.00 | 1.00 | 1.00            | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 53.0            | 19.4 | 19.4 | 30.7            | 7.8  | 7.8  | 40.0       | 38.7 | 40.3 | 41.9       | 38.7 | 41.1 |
| LOS by Move:              | D-              | B-   | B-   | C               | A    | A    | D          | D+   | D    | D          | D+   | D    |
| HCM2kAvgQ:                | 1               | 4    | 4    | 3               | 7    | 7    | 2          | 0    | 2    | 4          | 0    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #3: Mathilda Ave & Ross Dr



| Street Name: | Mathilda Ave |     |     |             |     |     | Ross Dr    |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 29          | 1041 | 147  | 119         | 1918 | 19   | 51         | 4    | 60   | 111        | 2    | 86   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 29          | 1041 | 147  | 119         | 1918 | 19   | 51         | 4    | 60   | 111        | 2    | 86   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 29          | 1041 | 147  | 119         | 1918 | 19   | 51         | 4    | 60   | 111        | 2    | 86   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 29          | 1041 | 147  | 119         | 1918 | 19   | 51         | 4    | 60   | 111        | 2    | 86   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 29          | 1041 | 147  | 119         | 1918 | 19   | 51         | 4    | 60   | 111        | 2    | 86   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 29          | 1041 | 147  | 119         | 1918 | 19   | 51         | 4    | 60   | 111        | 2    | 86   |

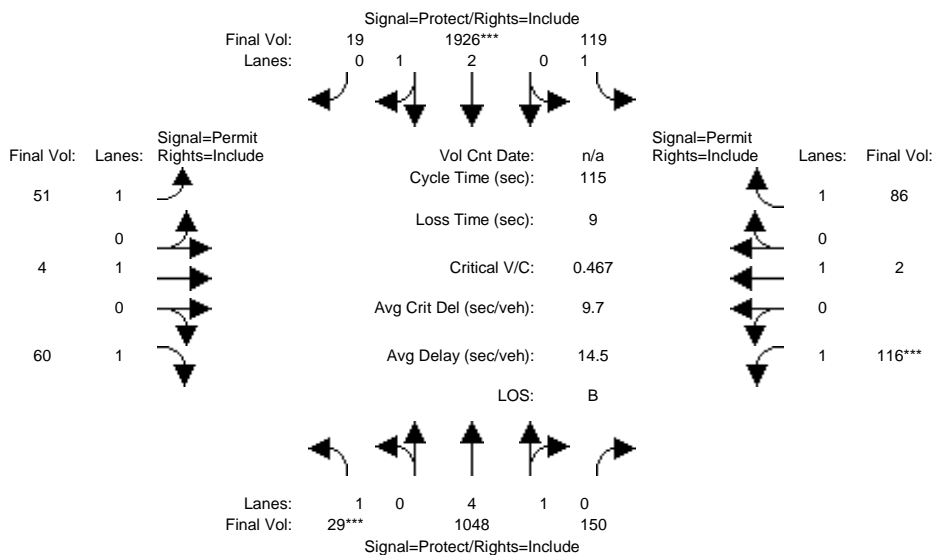
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.95 | 0.92        | 0.98 | 0.95 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 4.35 | 0.65 | 1.00        | 2.97 | 0.03 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Sat.:             | 1750        | 8235 | 1163 | 1750        | 5545 | 55   | 1750       | 1900 | 1750 | 1750       | 1900 | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.02        | 0.13 | 0.13 | 0.07        | 0.35 | 0.35 | 0.03       | 0.00 | 0.03 | 0.06       | 0.00 | 0.05 |
| Crit Moves:               | ****        |      |      |             | **** |      |            |      |      | ****       |      |      |
| Green Time:               | 7.0         | 58.9 | 58.9 | 31.7        | 83.7 | 83.7 | 15.3       | 15.3 | 15.3 | 15.3       | 15.3 | 15.3 |
| Volume/Cap:               | 0.27        | 0.25 | 0.25 | 0.25        | 0.48 | 0.48 | 0.22       | 0.02 | 0.26 | 0.48       | 0.01 | 0.37 |
| Uniform Del:              | 51.6        | 15.6 | 15.6 | 32.4        | 6.5  | 6.5  | 44.5       | 43.3 | 44.7 | 46.1       | 43.2 | 45.4 |
| IncrcmntDel:              | 1.4         | 0.0  | 0.0  | 0.3         | 0.1  | 0.1  | 0.5        | 0.0  | 0.6  | 1.5        | 0.0  | 1.0  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 53.0        | 15.7 | 15.7 | 32.6        | 6.6  | 6.6  | 45.0       | 43.3 | 45.3 | 47.6       | 43.2 | 46.4 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 53.0        | 15.7 | 15.7 | 32.6        | 6.6  | 6.6  | 45.0       | 43.3 | 45.3 | 47.6       | 43.2 | 46.4 |
| LOS by Move:              | D-          | B    | B    | C-          | A    | A    | D          | D    | D    | D          | D    | D    |
| HCM2kAvgQ:                | 1           | 5    | 5    | 3           | 10   | 10   | 2          | 0    | 2    | 4          | 0    | 3    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P MD

Intersection #3: Mathilda Ave & Ross Dr



| Street Name: | Mathilda Ave |     |     |             |     |     | Ross Dr    |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 29          | 1041 | 147  | 119         | 1918 | 19   | 51         | 4    | 60   | 111        | 2    | 86   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 29          | 1041 | 147  | 119         | 1918 | 19   | 51         | 4    | 60   | 111        | 2    | 86   |
| Added Vol:     | 0           | 7    | 3    | 0           | 8    | 0    | 0          | 0    | 0    | 5          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 29          | 1048 | 150  | 119         | 1926 | 19   | 51         | 4    | 60   | 116        | 2    | 86   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 29          | 1048 | 150  | 119         | 1926 | 19   | 51         | 4    | 60   | 116        | 2    | 86   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 29          | 1048 | 150  | 119         | 1926 | 19   | 51         | 4    | 60   | 116        | 2    | 86   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 29          | 1048 | 150  | 119         | 1926 | 19   | 51         | 4    | 60   | 116        | 2    | 86   |

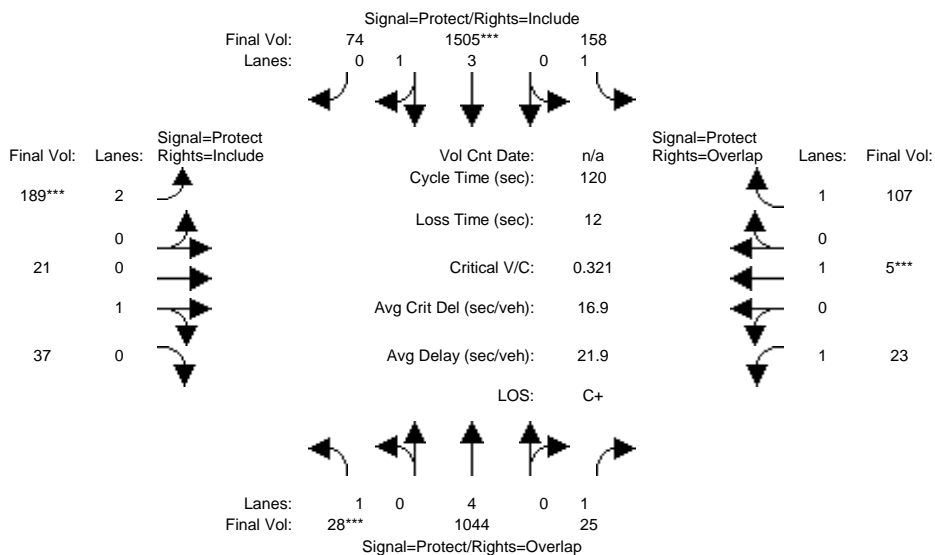
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.95 | 0.92        | 0.98 | 0.95 | 0.92       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 4.35 | 0.65 | 1.00        | 2.97 | 0.03 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Sat.:             | 1750        | 8221 | 1177 | 1750        | 5545 | 55   | 1750       | 1900 | 1750 | 1750       | 1900 | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.02        | 0.13 | 0.13 | 0.07        | 0.35 | 0.35 | 0.03       | 0.00 | 0.03 | 0.07       | 0.00 | 0.05 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 7.0         | 58.8 | 58.8 | 31.4        | 83.1 | 83.1 | 15.9       | 15.9 | 15.9 | 15.9       | 15.9 | 15.9 |
| Volume/Cap:               | 0.27        | 0.25 | 0.25 | 0.25        | 0.48 | 0.48 | 0.21       | 0.02 | 0.25 | 0.48       | 0.01 | 0.36 |
| Uniform Del:              | 51.6        | 15.7 | 15.7 | 32.6        | 6.8  | 6.8  | 44.0       | 42.8 | 44.2 | 45.8       | 42.8 | 44.9 |
| IncrcmntDel:              | 1.4         | 0.0  | 0.0  | 0.3         | 0.1  | 0.1  | 0.4        | 0.0  | 0.5  | 1.5        | 0.0  | 0.9  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 53.0        | 15.8 | 15.8 | 32.9        | 6.9  | 6.9  | 44.4       | 42.8 | 44.8 | 47.3       | 42.8 | 45.8 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 53.0        | 15.8 | 15.8 | 32.9        | 6.9  | 6.9  | 44.4       | 42.8 | 44.8 | 47.3       | 42.8 | 45.8 |
| LOS by Move:              | D-          | B    | B    | C-          | A    | A    | D          | D    | D    | D          | D    | D    |
| HCM2kAvgQ:                | 1           | 5    | 5    | 3           | 10   | 10   | 2          | 0    | 2    | 5          | 0    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing MD

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 28   | 1044 | 25   | 158  | 1505 | 74   | 189  | 21   | 37   | 23   | 5    | 107  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 28   | 1044 | 25   | 158  | 1505 | 74   | 189  | 21   | 37   | 23   | 5    | 107  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 28   | 1044 | 25   | 158  | 1505 | 74   | 189  | 21   | 37   | 23   | 5    | 107  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 28   | 1044 | 25   | 158  | 1505 | 74   | 189  | 21   | 37   | 23   | 5    | 107  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 28   | 1044 | 25   | 158  | 1505 | 74   | 189  | 21   | 37   | 23   | 5    | 107  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 28   | 1044 | 25   | 158  | 1505 | 74   | 189  | 21   | 37   | 23   | 5    | 107  |

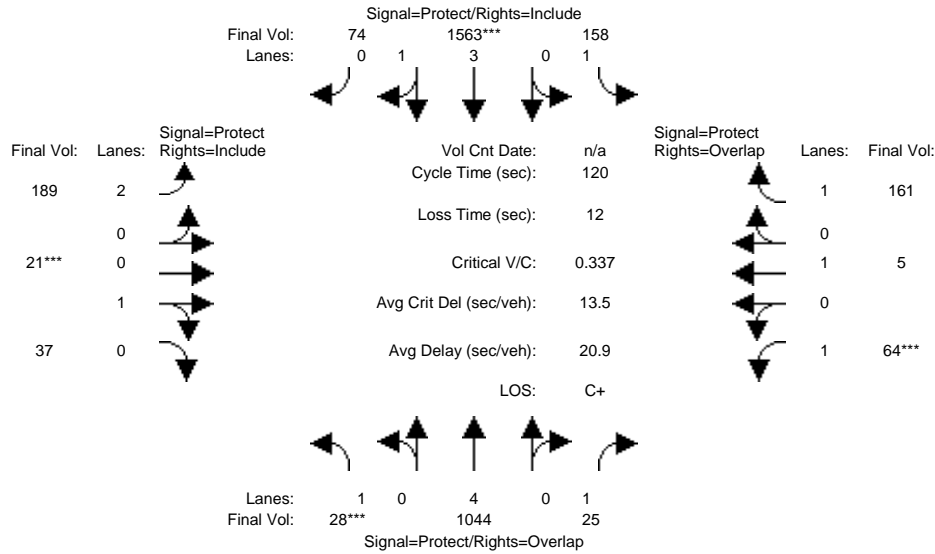
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.80 | 0.20 | 2.00 | 0.36 | 0.64 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 7148 | 351  | 3150 | 652  | 1148 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.14 | 0.01 | 0.09 | 0.21 | 0.21 | 0.06 | 0.03 | 0.03 | 0.01 | 0.00 | 0.06 |
| Crit Moves:               | ***  |      |      |      | ***  |      | ***  |      |      |      | ***  |      |
| Green Time:               | 7.0  | 47.0 | 59.4 | 30.9 | 70.8 | 70.8 | 20.2 | 17.8 | 17.8 | 12.4 | 10.0 | 40.9 |
| Volume/Cap:               | 0.27 | 0.35 | 0.03 | 0.35 | 0.36 | 0.36 | 0.36 | 0.22 | 0.22 | 0.13 | 0.03 | 0.18 |
| Uniform Del:              | 54.1 | 25.8 | 15.5 | 36.4 | 12.8 | 12.8 | 44.2 | 45.0 | 45.0 | 48.9 | 50.5 | 27.8 |
| IncrcmntDel:              | 1.5  | 0.1  | 0.0  | 0.5  | 0.0  | 0.0  | 0.4  | 0.4  | 0.4  | 0.3  | 0.1  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 55.5 | 25.8 | 15.5 | 36.9 | 12.8 | 12.8 | 44.6 | 45.4 | 45.4 | 49.2 | 50.6 | 27.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 55.5 | 25.8 | 15.5 | 36.9 | 12.8 | 12.8 | 44.6 | 45.4 | 45.4 | 49.2 | 50.6 | 27.9 |
| LOS by Move:              | E+   | C    | B    | D+   | B    | B    | D    | D    | D    | D    | D    | C    |
| HCM2kAvgQ:                | 1    | 6    | 0    | 5    | 7    | 7    | 4    | 2    | 2    | 1    | 0    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 28   | 1044 | 25   | 158  | 1505 | 74   | 189  | 21   | 37   | 23   | 5    | 107  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 28   | 1044 | 25   | 158  | 1505 | 74   | 189  | 21   | 37   | 23   | 5    | 107  |
| Added Vol:     | 0    | 0    | 0    | 0    | 58   | 0    | 0    | 0    | 0    | 41   | 0    | 54   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 28   | 1044 | 25   | 158  | 1563 | 74   | 189  | 21   | 37   | 64   | 5    | 161  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 28   | 1044 | 25   | 158  | 1563 | 74   | 189  | 21   | 37   | 64   | 5    | 161  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 28   | 1044 | 25   | 158  | 1563 | 74   | 189  | 21   | 37   | 64   | 5    | 161  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 28   | 1044 | 25   | 158  | 1563 | 74   | 189  | 21   | 37   | 64   | 5    | 161  |

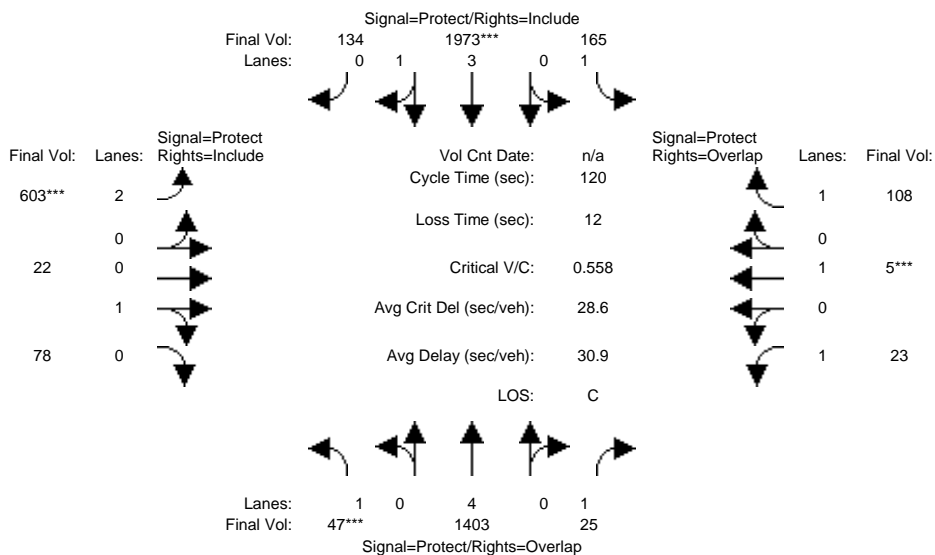
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.81 | 0.19 | 2.00 | 0.36 | 0.64 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 7160 | 339  | 3150 | 652  | 1148 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.14 | 0.01 | 0.09 | 0.22 | 0.22 | 0.06 | 0.03 | 0.03 | 0.04 | 0.00 | 0.09 |
| Crit Moves:               | **** |      |      |      | **** |      |      | **** |      | **** |      |      |
| Green Time:               | 7.0  | 50.6 | 63.4 | 33.2 | 76.8 | 76.8 | 10.1 | 11.3 | 11.3 | 12.9 | 14.1 | 47.3 |
| Volume/Cap:               | 0.27 | 0.33 | 0.03 | 0.33 | 0.34 | 0.34 | 0.71 | 0.34 | 0.34 | 0.34 | 0.02 | 0.23 |
| Uniform Del:              | 54.1 | 23.3 | 13.5 | 34.5 | 9.9  | 9.9  | 53.5 | 50.8 | 50.8 | 49.6 | 46.9 | 24.3 |
| IncrcmntDel:              | 1.5  | 0.1  | 0.0  | 0.4  | 0.0  | 0.0  | 8.6  | 1.2  | 1.2  | 1.1  | 0.0  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 55.5 | 23.3 | 13.5 | 34.9 | 10.0 | 10.0 | 62.2 | 52.0 | 52.0 | 50.7 | 46.9 | 24.4 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 55.5 | 23.3 | 13.5 | 34.9 | 10.0 | 10.0 | 62.2 | 52.0 | 52.0 | 50.7 | 46.9 | 24.4 |
| LOS by Move:              | E+   | C    | B    | C-   | A    | A    | E    | D-   | D-   | D    | D    | C    |
| HCM2kAvgQ:                | 1    | 6    | 0    | 5    | 7    | 7    | 6    | 2    | 2    | 3    | 0    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 47   | 1403 | 25   | 165  | 1973 | 134  | 603  | 22   | 78   | 23   | 5    | 108  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 47   | 1403 | 25   | 165  | 1973 | 134  | 603  | 22   | 78   | 23   | 5    | 108  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 47   | 1403 | 25   | 165  | 1973 | 134  | 603  | 22   | 78   | 23   | 5    | 108  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 47   | 1403 | 25   | 165  | 1973 | 134  | 603  | 22   | 78   | 23   | 5    | 108  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 47   | 1403 | 25   | 165  | 1973 | 134  | 603  | 22   | 78   | 23   | 5    | 108  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 47   | 1403 | 25   | 165  | 1973 | 134  | 603  | 22   | 78   | 23   | 5    | 108  |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.74 | 0.26 | 2.00 | 0.22 | 0.78 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 7022 | 477  | 3150 | 396  | 1404 | 1750 | 1900 | 1750 |

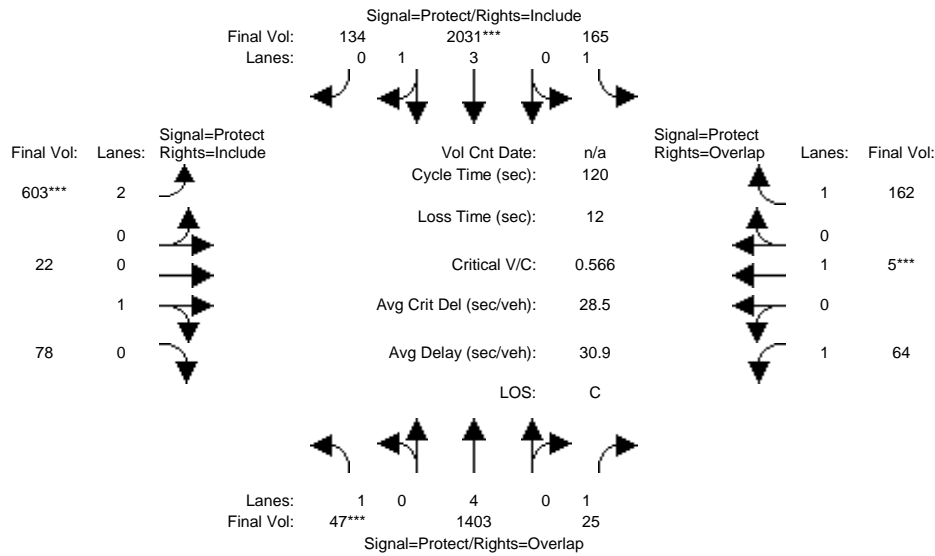
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.18 | 0.01 | 0.09 | 0.28 | 0.28 | 0.19 | 0.06 | 0.06 | 0.01 | 0.00 | 0.06 |
| Crit Moves:               | ***  |      |      |      | ***  |      | ***  |      |      |      | ***  |      |
| Green Time:               | 7.0  | 40.5 | 59.8 | 20.7 | 54.1 | 54.1 | 36.9 | 27.6 | 27.6 | 19.3 | 10.0 | 30.7 |
| Volume/Cap:               | 0.46 | 0.55 | 0.03 | 0.55 | 0.62 | 0.62 | 0.62 | 0.24 | 0.24 | 0.08 | 0.03 | 0.24 |
| Uniform Del:              | 54.7 | 32.3 | 15.3 | 45.4 | 25.1 | 25.1 | 35.6 | 37.7 | 37.7 | 42.8 | 50.5 | 35.4 |
| IncrcmntDel:              | 3.3  | 0.3  | 0.0  | 2.1  | 0.4  | 0.4  | 1.3  | 0.3  | 0.3  | 0.1  | 0.1  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 57.9 | 32.6 | 15.4 | 47.5 | 25.5 | 25.5 | 36.9 | 38.0 | 38.0 | 42.9 | 50.6 | 35.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 57.9 | 32.6 | 15.4 | 47.5 | 25.5 | 25.5 | 36.9 | 38.0 | 38.0 | 42.9 | 50.6 | 35.7 |
| LOS by Move:              | E+   | C-   | B    | D    | C    | C    | D+   | D+   | D+   | D    | D    | D+   |
| HCM2kAvgQ:                | 2    | 10   | 0    | 7    | 15   | 15   | 12   | 3    | 3    | 1    | 0    | 3    |

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



Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P MD

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 47   | 1403 | 25   | 165  | 1973 | 134  | 603  | 22   | 78   | 23   | 5    | 108  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 47   | 1403 | 25   | 165  | 1973 | 134  | 603  | 22   | 78   | 23   | 5    | 108  |
| Added Vol:     | 0    | 0    | 0    | 0    | 58   | 0    | 0    | 0    | 0    | 41   | 0    | 54   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 47   | 1403 | 25   | 165  | 2031 | 134  | 603  | 22   | 78   | 64   | 5    | 162  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 47   | 1403 | 25   | 165  | 2031 | 134  | 603  | 22   | 78   | 64   | 5    | 162  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 47   | 1403 | 25   | 165  | 2031 | 134  | 603  | 22   | 78   | 64   | 5    | 162  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 47   | 1403 | 25   | 165  | 2031 | 134  | 603  | 22   | 78   | 64   | 5    | 162  |

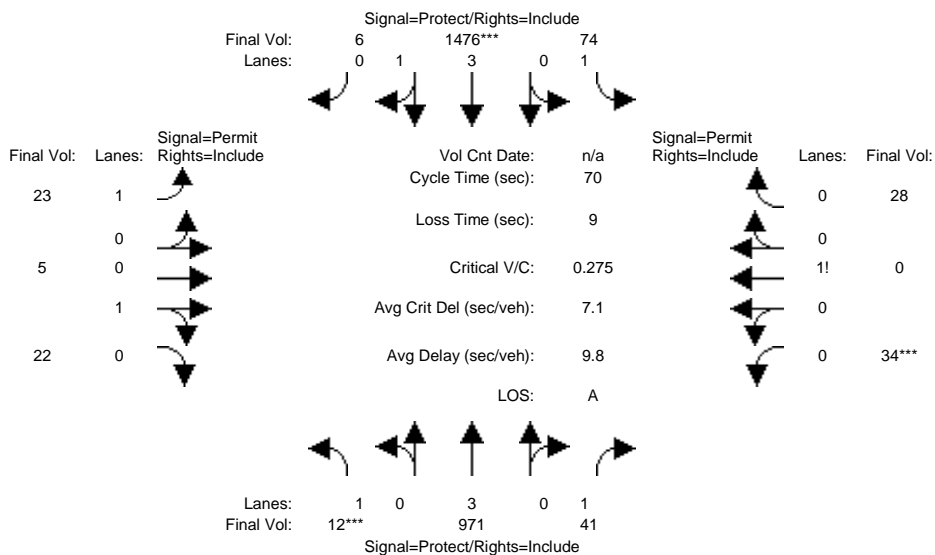
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.74 | 0.26 | 2.00 | 0.22 | 0.78 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 7035 | 464  | 3150 | 396  | 1404 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.18 | 0.01 | 0.09 | 0.29 | 0.29 | 0.19 | 0.06 | 0.06 | 0.04 | 0.00 | 0.09 |
| Crit Moves:               | ***  |      |      |      | **** |      | **** |      |      |      | **** |      |
| Green Time:               | 7.0  | 40.9 | 59.9 | 20.9 | 54.7 | 54.7 | 36.3 | 27.2 | 27.2 | 19.1 | 10.0 | 30.9 |
| Volume/Cap:               | 0.46 | 0.54 | 0.03 | 0.54 | 0.63 | 0.63 | 0.63 | 0.24 | 0.24 | 0.23 | 0.03 | 0.36 |
| Uniform Del:              | 54.7 | 32.0 | 15.3 | 45.2 | 25.0 | 25.0 | 36.1 | 38.0 | 38.0 | 44.1 | 50.5 | 36.5 |
| IncrcmntDel:              | 3.3  | 0.2  | 0.0  | 2.0  | 0.4  | 0.4  | 1.4  | 0.3  | 0.3  | 0.4  | 0.1  | 0.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 57.9 | 32.2 | 15.3 | 47.2 | 25.4 | 25.4 | 37.5 | 38.3 | 38.3 | 44.5 | 50.6 | 37.0 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 57.9 | 32.2 | 15.3 | 47.2 | 25.4 | 25.4 | 37.5 | 38.3 | 38.3 | 44.5 | 50.6 | 37.0 |
| LOS by Move:              | E+   | C-   | B    | D    | C    | C    | D+   | D+   | D+   | D    | D    | D+   |
| HCM2kAvgQ:                | 2    | 10   | 0    | 7    | 16   | 16   | 12   | 3    | 3    | 2    | 0    | 5    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing MD

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 12   | 971  | 41   | 74   | 1476 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 12   | 971  | 41   | 74   | 1476 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 12   | 971  | 41   | 74   | 1476 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 12   | 971  | 41   | 74   | 1476 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 12   | 971  | 41   | 74   | 1476 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 12   | 971  | 41   | 74   | 1476 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |

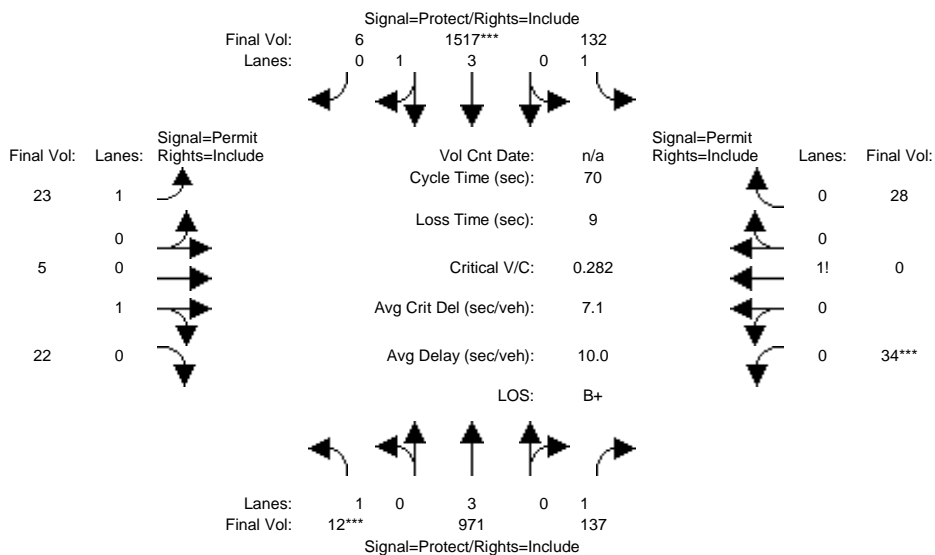
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.98 | 0.02 | 1.00 | 0.19 | 0.81 | 0.55 | 0.00 | 0.45 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 7470 | 30   | 1750 | 333  | 1467 | 960  | 0    | 790  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.17 | 0.02 | 0.04 | 0.20 | 0.20 | 0.01 | 0.02 | 0.02 | 0.04 | 0.00 | 0.04 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 7.0  | 32.1 | 32.1 | 18.9 | 44.0 | 44.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0  | 10.0 |
| Volume/Cap:               | 0.07 | 0.37 | 0.05 | 0.16 | 0.31 | 0.31 | 0.09 | 0.11 | 0.11 | 0.25 | 0.00 | 0.25 |
| Uniform Del:              | 28.5 | 12.3 | 10.5 | 19.5 | 6.0  | 6.0  | 26.1 | 26.1 | 26.1 | 26.7 | 0.0  | 26.7 |
| IncrcmntDel:              | 0.2  | 0.1  | 0.0  | 0.2  | 0.0  | 0.0  | 0.2  | 0.2  | 0.2  | 0.5  | 0.0  | 0.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 28.7 | 12.4 | 10.5 | 19.7 | 6.1  | 6.1  | 26.2 | 26.3 | 26.3 | 27.2 | 0.0  | 27.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.7 | 12.4 | 10.5 | 19.7 | 6.1  | 6.1  | 26.2 | 26.3 | 26.3 | 27.2 | 0.0  | 27.2 |
| LOS by Move:              | C    | B    | B+   | B-   | A    | A    | C    | C    | C    | C    | A    | C    |
| HCM2kAvgQ:                | 0    | 4    | 1    | 1    | 4    | 4    | 1    | 1    | 1    | 1    | 0    | 1    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 12   | 971  | 41   | 74   | 1476 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 12   | 971  | 41   | 74   | 1476 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| Added Vol:     | 0    | 0    | 96   | 58   | 41   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 12   | 971  | 137  | 132  | 1517 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 12   | 971  | 137  | 132  | 1517 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 12   | 971  | 137  | 132  | 1517 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 12   | 971  | 137  | 132  | 1517 | 6    | 23   | 5    | 22   | 34   | 0    | 28   |

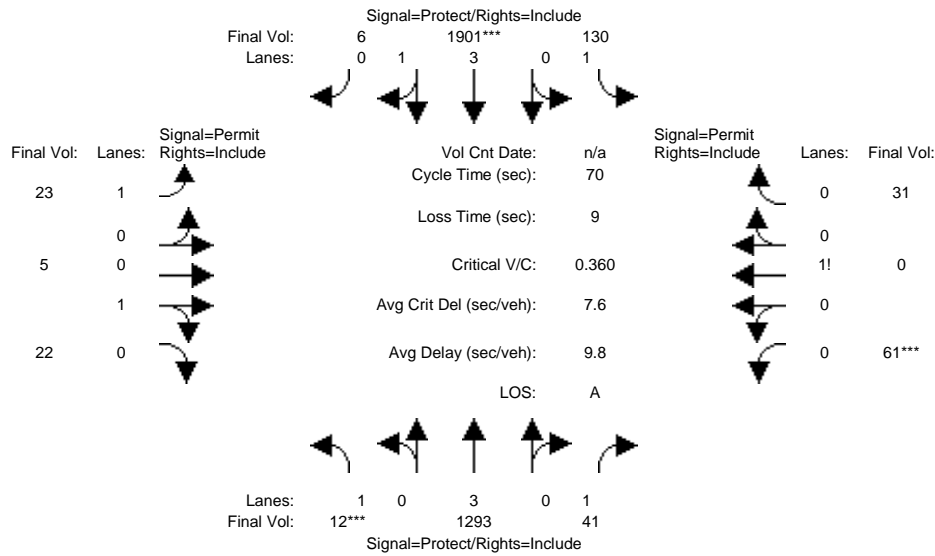
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.98 | 0.02 | 1.00 | 0.19 | 0.81 | 0.55 | 0.00 | 0.45 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 7470 | 30   | 1750 | 333  | 1467 | 960  | 0    | 790  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.17 | 0.08 | 0.08 | 0.20 | 0.20 | 0.01 | 0.02 | 0.02 | 0.04 | 0.00 | 0.04 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 7.0  | 32.1 | 32.1 | 18.9 | 44.0 | 44.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0  | 10.0 |
| Volume/Cap:               | 0.07 | 0.37 | 0.17 | 0.28 | 0.32 | 0.32 | 0.09 | 0.11 | 0.11 | 0.25 | 0.00 | 0.25 |
| Uniform Del:              | 28.5 | 12.3 | 11.1 | 20.2 | 6.1  | 6.1  | 26.1 | 26.1 | 26.1 | 26.7 | 0.0  | 26.7 |
| IncrcmntDel:              | 0.2  | 0.1  | 0.1  | 0.3  | 0.0  | 0.0  | 0.2  | 0.2  | 0.2  | 0.5  | 0.0  | 0.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 28.7 | 12.4 | 11.2 | 20.5 | 6.1  | 6.1  | 26.2 | 26.3 | 26.3 | 27.2 | 0.0  | 27.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.7 | 12.4 | 11.2 | 20.5 | 6.1  | 6.1  | 26.2 | 26.3 | 26.3 | 27.2 | 0.0  | 27.2 |
| LOS by Move:              | C    | B    | B+   | C+   | A    | A    | C    | C    | C    | C    | A    | C    |
| HCM2kAvgQ:                | 0    | 4    | 2    | 2    | 4    | 4    | 1    | 1    | 1    | 1    | 0    | 1    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd MD

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 12   | 1293 | 41   | 130  | 1901 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 12   | 1293 | 41   | 130  | 1901 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 12   | 1293 | 41   | 130  | 1901 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 12   | 1293 | 41   | 130  | 1901 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 12   | 1293 | 41   | 130  | 1901 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 12   | 1293 | 41   | 130  | 1901 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |

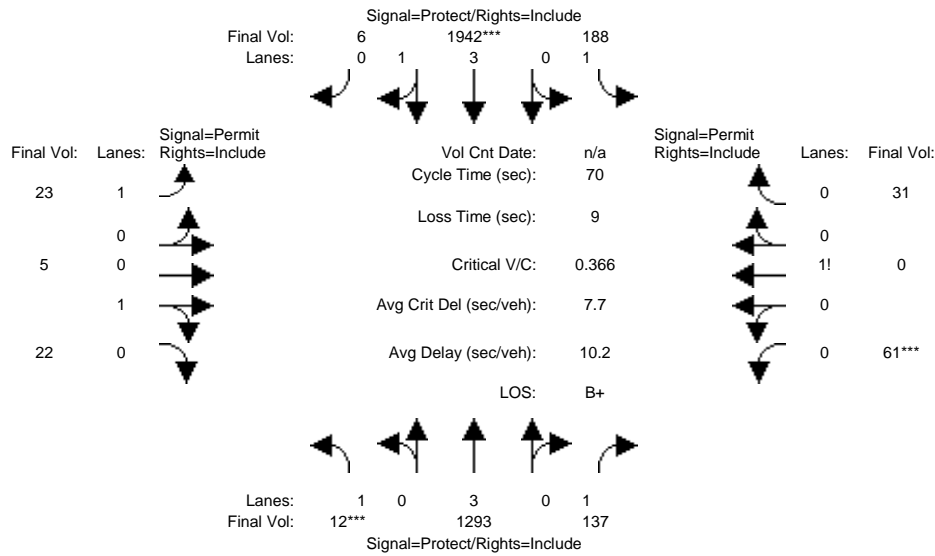
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.99 | 0.01 | 1.00 | 0.19 | 0.81 | 0.66 | 0.00 | 0.34 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 7476 | 24   | 1750 | 333  | 1467 | 1160 | 0    | 590  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.23 | 0.02 | 0.07 | 0.25 | 0.25 | 0.01 | 0.02 | 0.02 | 0.05 | 0.00 | 0.05 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 7.0  | 35.4 | 35.4 | 15.6 | 44.0 | 44.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0  | 10.0 |
| Volume/Cap:               | 0.07 | 0.45 | 0.05 | 0.33 | 0.40 | 0.40 | 0.09 | 0.11 | 0.11 | 0.37 | 0.00 | 0.37 |
| Uniform Del:              | 28.5 | 11.1 | 8.8  | 22.8 | 6.5  | 6.5  | 26.1 | 26.1 | 26.1 | 27.1 | 0.0  | 27.1 |
| IncrcmntDel:              | 0.2  | 0.1  | 0.0  | 0.5  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  | 0.9  | 0.0  | 0.9  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 28.7 | 11.2 | 8.8  | 23.3 | 6.5  | 6.5  | 26.2 | 26.3 | 26.3 | 28.1 | 0.0  | 28.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.7 | 11.2 | 8.8  | 23.3 | 6.5  | 6.5  | 26.2 | 26.3 | 26.3 | 28.1 | 0.0  | 28.1 |
| LOS by Move:              | C    | B+   | A    | C    | A    | A    | C    | C    | C    | C    | A    | C    |
| HCM2kAvgQ:                | 0    | 6    | 0    | 2    | 5    | 5    | 1    | 1    | 1    | 2    | 0    | 2    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P MD

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 12   | 1293 | 41   | 130  | 1901 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 12   | 1293 | 41   | 130  | 1901 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| Added Vol:     | 0    | 0    | 96   | 58   | 41   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 12   | 1293 | 137  | 188  | 1942 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 12   | 1293 | 137  | 188  | 1942 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 12   | 1293 | 137  | 188  | 1942 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 12   | 1293 | 137  | 188  | 1942 | 6    | 23   | 5    | 22   | 61   | 0    | 31   |

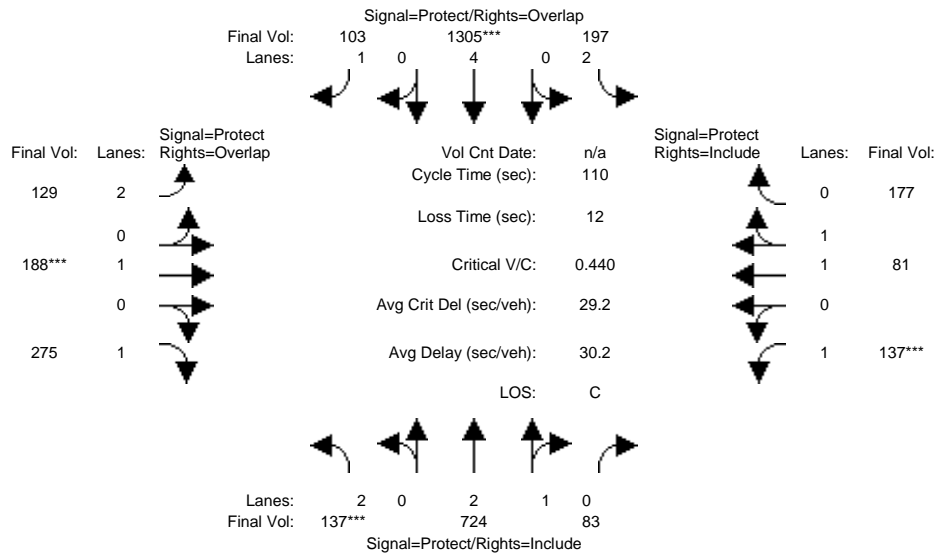
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.99 | 0.01 | 1.00 | 0.19 | 0.81 | 0.66 | 0.00 | 0.34 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 7477 | 23   | 1750 | 333  | 1467 | 1160 | 0    | 590  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.23 | 0.08 | 0.11 | 0.26 | 0.26 | 0.01 | 0.02 | 0.02 | 0.05 | 0.00 | 0.05 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 7.0  | 34.6 | 34.6 | 16.4 | 44.0 | 44.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0  | 10.0 |
| Volume/Cap:               | 0.07 | 0.46 | 0.16 | 0.46 | 0.41 | 0.41 | 0.09 | 0.11 | 0.11 | 0.37 | 0.00 | 0.37 |
| Uniform Del:              | 28.5 | 11.6 | 9.7  | 23.0 | 6.5  | 6.5  | 26.1 | 26.1 | 26.1 | 27.1 | 0.0  | 27.1 |
| IncrcmntDel:              | 0.2  | 0.1  | 0.1  | 0.8  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  | 0.9  | 0.0  | 0.9  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 28.7 | 11.7 | 9.8  | 23.8 | 6.6  | 6.6  | 26.2 | 26.3 | 26.3 | 28.1 | 0.0  | 28.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.7 | 11.7 | 9.8  | 23.8 | 6.6  | 6.6  | 26.2 | 26.3 | 26.3 | 28.1 | 0.0  | 28.1 |
| LOS by Move:              | C    | B+   | A    | C    | A    | A    | C    | C    | C    | C    | A    | C    |
| HCM2kAvgQ:                | 0    | 6    | 2    | 4    | 5    | 5    | 1    | 1    | 1    | 2    | 0    | 2    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing MD

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 137  | 724  | 83   | 197  | 1305 | 103  | 129  | 188  | 275  | 137  | 81   | 177  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 137  | 724  | 83   | 197  | 1305 | 103  | 129  | 188  | 275  | 137  | 81   | 177  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 137  | 724  | 83   | 197  | 1305 | 103  | 129  | 188  | 275  | 137  | 81   | 177  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 137  | 724  | 83   | 197  | 1305 | 103  | 129  | 188  | 275  | 137  | 81   | 177  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 137  | 724  | 83   | 197  | 1305 | 103  | 129  | 188  | 275  | 137  | 81   | 177  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 137  | 724  | 83   | 197  | 1305 | 103  | 129  | 188  | 275  | 137  | 81   | 177  |

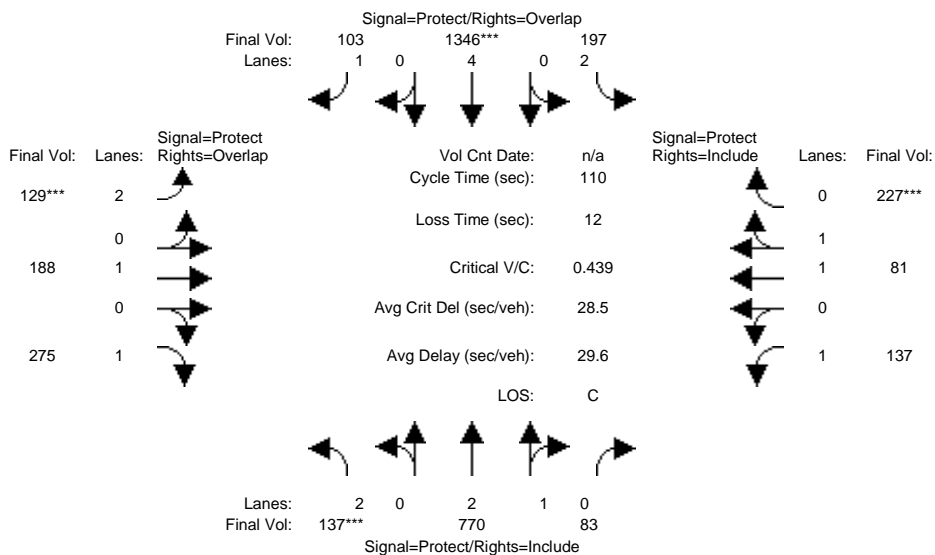
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 2.00 | 2.68 | 0.32 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 3150 | 5023 | 576  | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.14 | 0.14 | 0.06 | 0.17 | 0.06 | 0.04 | 0.10 | 0.16 | 0.08 | 0.04 | 0.10 |
| Crit Moves:               | ***  |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 10.9 | 37.3 | 37.3 | 16.5 | 42.9 | 60.0 | 17.1 | 24.7 | 35.6 | 19.5 | 27.2 | 27.2 |
| Volume/Cap:               | 0.44 | 0.43 | 0.43 | 0.42 | 0.44 | 0.11 | 0.26 | 0.44 | 0.49 | 0.44 | 0.17 | 0.41 |
| Uniform Del:              | 46.7 | 28.1 | 28.1 | 42.4 | 24.7 | 12.1 | 40.9 | 36.7 | 29.9 | 40.3 | 32.6 | 34.7 |
| IncrcmntDel:              | 1.0  | 0.2  | 0.2  | 0.6  | 0.1  | 0.1  | 0.3  | 0.7  | 0.7  | 1.0  | 0.1  | 0.4  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 47.7 | 28.2 | 28.2 | 43.0 | 24.8 | 12.1 | 41.2 | 37.4 | 30.5 | 41.3 | 32.6 | 35.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 47.7 | 28.2 | 28.2 | 43.0 | 24.8 | 12.1 | 41.2 | 37.4 | 30.5 | 41.3 | 32.6 | 35.1 |
| LOS by Move:              | D    | C    | C    | D    | C    | B    | D    | D+   | C    | D    | C-   | D+   |
| HCM2kAvgQ:                | 3    | 7    | 7    | 4    | 8    | 2    | 2    | 6    | 8    | 5    | 2    | 6    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 137  | 724  | 83   | 197  | 1305 | 103  | 129  | 188  | 275  | 137  | 81   | 177  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 137  | 724  | 83   | 197  | 1305 | 103  | 129  | 188  | 275  | 137  | 81   | 177  |
| Added Vol:     | 0    | 46   | 0    | 0    | 41   | 0    | 0    | 0    | 0    | 0    | 0    | 50   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 137  | 770  | 83   | 197  | 1346 | 103  | 129  | 188  | 275  | 137  | 81   | 227  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 137  | 770  | 83   | 197  | 1346 | 103  | 129  | 188  | 275  | 137  | 81   | 227  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 137  | 770  | 83   | 197  | 1346 | 103  | 129  | 188  | 275  | 137  | 81   | 227  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 137  | 770  | 83   | 197  | 1346 | 103  | 129  | 188  | 275  | 137  | 81   | 227  |

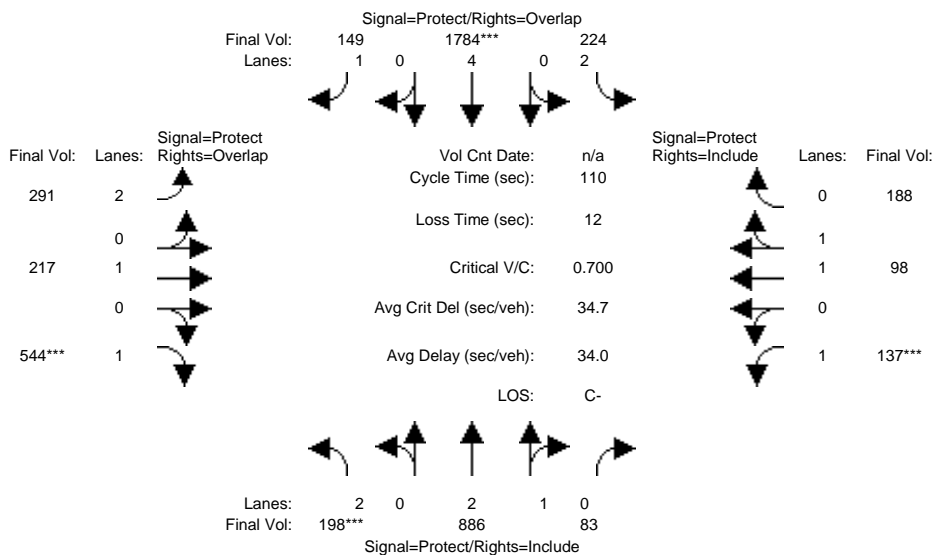
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 2.00 | 2.70 | 0.30 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 3150 | 5054 | 545  | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.15 | 0.15 | 0.06 | 0.18 | 0.06 | 0.04 | 0.10 | 0.16 | 0.08 | 0.04 | 0.13 |
| Crit Moves:               | ***  |      |      | **** |      |      | **** |      |      |      |      | **** |
| Green Time:               | 10.9 | 39.0 | 39.0 | 16.3 | 44.4 | 54.6 | 10.3 | 25.3 | 36.2 | 17.4 | 32.5 | 32.5 |
| Volume/Cap:               | 0.44 | 0.43 | 0.43 | 0.42 | 0.44 | 0.12 | 0.44 | 0.43 | 0.48 | 0.49 | 0.14 | 0.44 |
| Uniform Del:              | 46.7 | 27.1 | 27.1 | 42.6 | 23.8 | 14.8 | 47.2 | 36.2 | 29.4 | 42.3 | 28.5 | 31.4 |
| IncrementDel:             | 1.0  | 0.2  | 0.2  | 0.6  | 0.1  | 0.1  | 1.1  | 0.7  | 0.6  | 1.4  | 0.0  | 0.4  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 47.7 | 27.2 | 27.2 | 43.2 | 23.9 | 14.9 | 48.2 | 36.9 | 30.0 | 43.6 | 28.6 | 31.8 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 47.7 | 27.2 | 27.2 | 43.2 | 23.9 | 14.9 | 48.2 | 36.9 | 30.0 | 43.6 | 28.6 | 31.8 |
| LOS by Move:              | D    | C    | C    | D    | C    | B    | D    | D+   | C    | D    | C    | C    |
| HCM2kAvgQ:                | 3    | 7    | 7    | 4    | 8    | 2    | 3    | 6    | 8    | 5    | 2    | 7    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 198  | 886  | 83   | 224  | 1784 | 149  | 291  | 217  | 544  | 137  | 98   | 188  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 198  | 886  | 83   | 224  | 1784 | 149  | 291  | 217  | 544  | 137  | 98   | 188  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 198  | 886  | 83   | 224  | 1784 | 149  | 291  | 217  | 544  | 137  | 98   | 188  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 198  | 886  | 83   | 224  | 1784 | 149  | 291  | 217  | 544  | 137  | 98   | 188  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 198  | 886  | 83   | 224  | 1784 | 149  | 291  | 217  | 544  | 137  | 98   | 188  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 198  | 886  | 83   | 224  | 1784 | 149  | 291  | 217  | 544  | 137  | 98   | 188  |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 2.00 | 2.73 | 0.27 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 3150 | 5120 | 480  | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 1900 | 1750 |

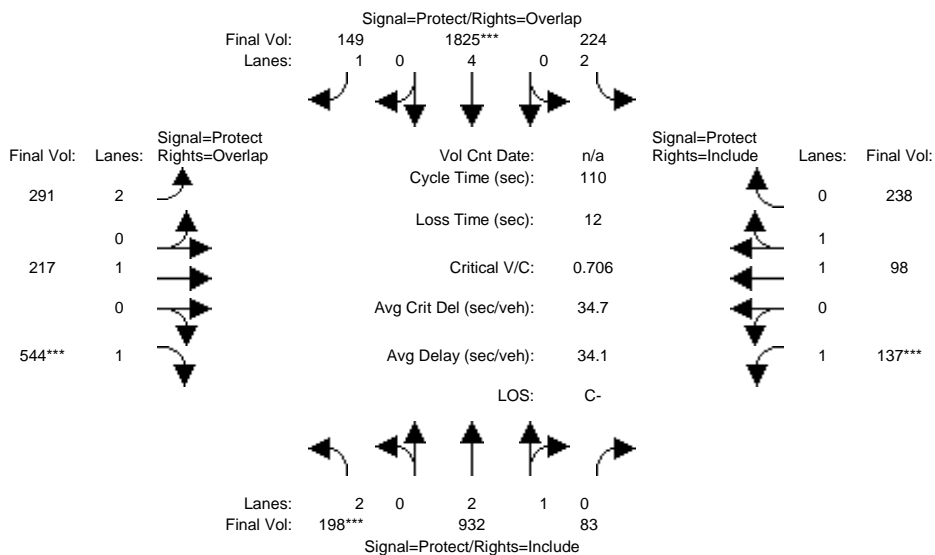
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.06 | 0.17 | 0.17 | 0.07 | 0.23 | 0.09 | 0.09 | 0.11 | 0.31 | 0.08 | 0.05 | 0.11 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      | **** | **** |      |      |
| Green Time:               | 9.9  | 33.1 | 33.1 | 13.6 | 36.9 | 60.5 | 23.6 | 38.8 | 48.7 | 12.3 | 27.5 | 27.5 |
| Volume/Cap:               | 0.70 | 0.57 | 0.57 | 0.57 | 0.70 | 0.15 | 0.43 | 0.32 | 0.70 | 0.70 | 0.21 | 0.43 |
| Uniform Del:              | 48.6 | 32.5 | 32.5 | 45.5 | 31.8 | 12.2 | 37.4 | 26.0 | 24.8 | 47.1 | 32.6 | 34.7 |
| IncrcmntDel:              | 7.6  | 0.5  | 0.5  | 2.1  | 0.9  | 0.1  | 0.4  | 0.3  | 2.9  | 10.8 | 0.1  | 0.4  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 56.2 | 33.0 | 33.0 | 47.6 | 32.6 | 12.2 | 37.8 | 26.3 | 27.7 | 57.8 | 32.7 | 35.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 56.2 | 33.0 | 33.0 | 47.6 | 32.6 | 12.2 | 37.8 | 26.3 | 27.7 | 57.8 | 32.7 | 35.1 |
| LOS by Move:              | E+   | C-   | C-   | D    | C-   | B    | D+   | C    | C    | E+   | C-   | D+   |
| HCM2kAvgQ:                | 4    | 9    | 9    | 4    | 13   | 3    | 5    | 5    | 17   | 6    | 3    | 6    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P MD

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 198         | 886  | 83   | 224         | 1784 | 149  | 291        | 217  | 544  | 137        | 98   | 188  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 198         | 886  | 83   | 224         | 1784 | 149  | 291        | 217  | 544  | 137        | 98   | 188  |
| Added Vol:     | 0           | 46   | 0    | 0           | 41   | 0    | 0          | 0    | 0    | 0          | 0    | 50   |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 198         | 932  | 83   | 224         | 1825 | 149  | 291        | 217  | 544  | 137        | 98   | 238  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 198         | 932  | 83   | 224         | 1825 | 149  | 291        | 217  | 544  | 137        | 98   | 238  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 198         | 932  | 83   | 224         | 1825 | 149  | 291        | 217  | 544  | 137        | 98   | 238  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 198         | 932  | 83   | 224         | 1825 | 149  | 291        | 217  | 544  | 137        | 98   | 238  |

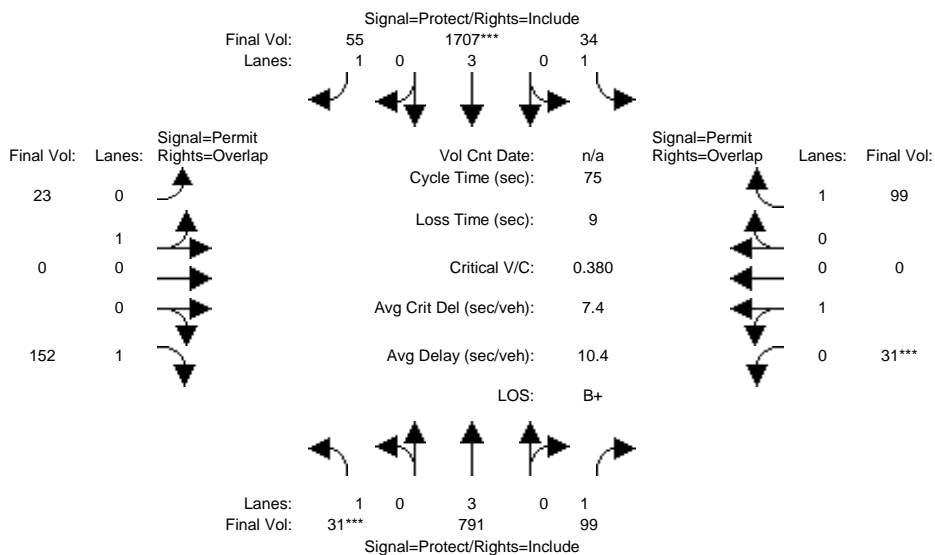
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.83        | 0.99 | 0.95 | 0.83        | 1.00 | 0.92 | 0.83       | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 2.00        | 2.75 | 0.25 | 2.00        | 4.00 | 1.00 | 2.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Sat.:             | 3150        | 5141 | 458  | 3150        | 7600 | 1750 | 3150       | 1900 | 1750 | 1750       | 1900 | 1750 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.06        | 0.18 | 0.18 | 0.07        | 0.24 | 0.09 | 0.09       | 0.11 | 0.31 | 0.08       | 0.05 | 0.14 |
| Crit Moves:               | ****        |      |      | ****        |      |      | ****       |      | **** | ****       |      | **** |
| Green Time:               | 9.8         | 33.9 | 33.9 | 13.3        | 37.4 | 57.9 | 20.5       | 38.5 | 48.3 | 12.2       | 30.2 | 30.2 |
| Volume/Cap:               | 0.71        | 0.59 | 0.59 | 0.59        | 0.71 | 0.16 | 0.50       | 0.33 | 0.71 | 0.71       | 0.19 | 0.50 |
| Uniform Del:              | 48.7        | 32.2 | 32.2 | 45.8        | 31.5 | 13.5 | 40.1       | 26.2 | 25.1 | 47.2       | 30.5 | 33.5 |
| IncrementDel:             | 8.0         | 0.5  | 0.5  | 2.4         | 0.9  | 0.1  | 0.7        | 0.3  | 3.1  | 11.3       | 0.1  | 0.6  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 56.7        | 32.7 | 32.7 | 48.2        | 32.4 | 13.6 | 40.8       | 26.5 | 28.2 | 58.5       | 30.6 | 34.1 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 56.7        | 32.7 | 32.7 | 48.2        | 32.4 | 13.6 | 40.8       | 26.5 | 28.2 | 58.5       | 30.6 | 34.1 |
| LOS by Move:              | E+          | C-   | C-   | D           | C-   | B    | D          | C    | C    | E+         | C    | C-   |
| HCM2kAvgQ:                | 4           | 10   | 10   | 4           | 13   | 3    | 6          | 5    | 17   | 6          | 3    | 8    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing MD

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 31   | 791  | 99   | 34   | 1707 | 55   | 23   | 0    | 152  | 31   | 0    | 99   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 31   | 791  | 99   | 34   | 1707 | 55   | 23   | 0    | 152  | 31   | 0    | 99   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 31   | 791  | 99   | 34   | 1707 | 55   | 23   | 0    | 152  | 31   | 0    | 99   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 31   | 791  | 99   | 34   | 1707 | 55   | 23   | 0    | 152  | 31   | 0    | 99   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 31   | 791  | 99   | 34   | 1707 | 55   | 23   | 0    | 152  | 31   | 0    | 99   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 31   | 791  | 99   | 34   | 1707 | 55   | 23   | 0    | 152  | 31   | 0    | 99   |

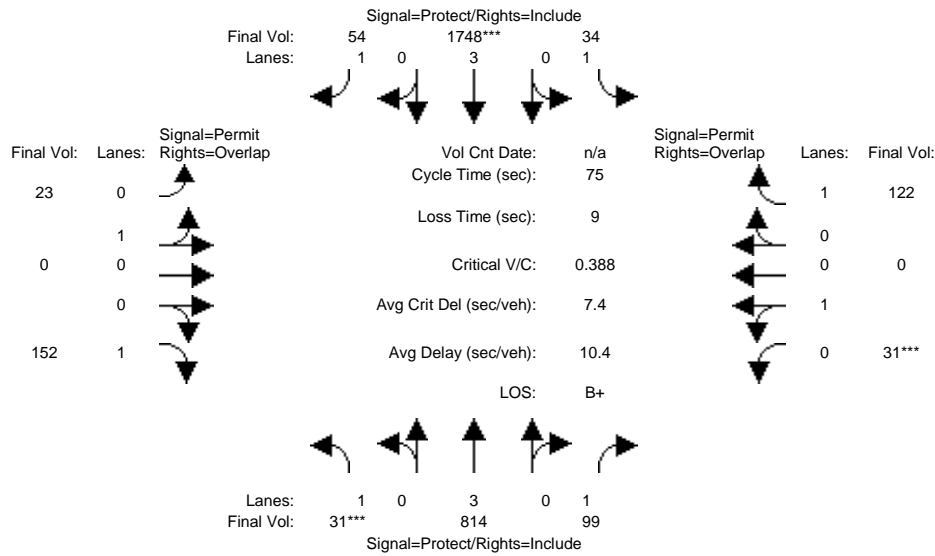
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1800 | 0    | 1750 | 1800 | 0    | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.14 | 0.06 | 0.02 | 0.30 | 0.03 | 0.01 | 0.00 | 0.09 | 0.02 | 0.00 | 0.06 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 7.0  | 33.5 | 33.5 | 22.5 | 49.0 | 49.0 | 10.0 | 0.0  | 17.0 | 10.0 | 0.0  | 32.5 |
| Volume/Cap:               | 0.19 | 0.31 | 0.13 | 0.06 | 0.46 | 0.05 | 0.10 | 0.00 | 0.38 | 0.13 | 0.00 | 0.13 |
| Uniform Del:              | 31.4 | 13.3 | 12.2 | 18.7 | 6.4  | 4.7  | 28.5 | 0.0  | 24.6 | 28.7 | 0.0  | 12.8 |
| IncrcmntDel:              | 0.6  | 0.1  | 0.1  | 0.1  | 0.1  | 0.0  | 0.2  | 0.0  | 0.6  | 0.2  | 0.0  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 31.9 | 13.4 | 12.3 | 18.8 | 6.5  | 4.7  | 28.7 | 0.0  | 25.2 | 28.9 | 0.0  | 12.8 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 31.9 | 13.4 | 12.3 | 18.8 | 6.5  | 4.7  | 28.7 | 0.0  | 25.2 | 28.9 | 0.0  | 12.8 |
| LOS by Move:              | C    | B    | B    | B-   | A    | A    | C    | A    | C    | C    | A    | B    |
| HCM2kAvgQ:                | 1    | 4    | 1    | 1    | 6    | 0    | 1    | 0    | 4    | 1    | 0    | 1    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 31   | 791  | 99   | 34   | 1707 | 55   | 23   | 0    | 152  | 31   | 0    | 99   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 31   | 791  | 99   | 34   | 1707 | 55   | 23   | 0    | 152  | 31   | 0    | 99   |
| Added Vol:     | 0    | 23   | 0    | 0    | 41   | -1   | 0    | 0    | 0    | 0    | 0    | 23   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 31   | 814  | 99   | 34   | 1748 | 54   | 23   | 0    | 152  | 31   | 0    | 122  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 31   | 814  | 99   | 34   | 1748 | 54   | 23   | 0    | 152  | 31   | 0    | 122  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 31   | 814  | 99   | 34   | 1748 | 54   | 23   | 0    | 152  | 31   | 0    | 122  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 31   | 814  | 99   | 34   | 1748 | 54   | 23   | 0    | 152  | 31   | 0    | 122  |

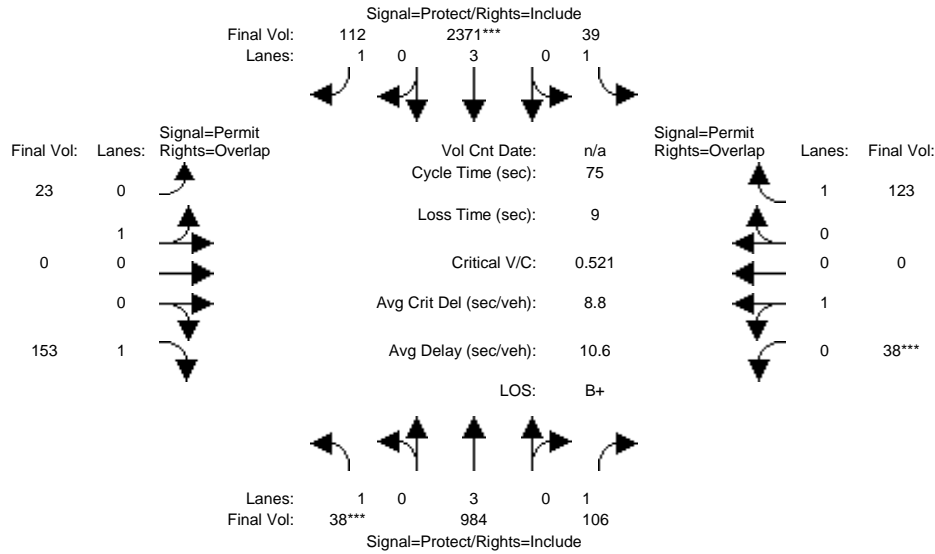
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1800 | 0    | 1750 | 1800 | 0    | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.14 | 0.06 | 0.02 | 0.31 | 0.03 | 0.01 | 0.00 | 0.09 | 0.02 | 0.00 | 0.07 |
| Crit Moves:               | ***  |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 7.0  | 33.9 | 33.9 | 22.1 | 49.0 | 49.0 | 10.0 | 0.0  | 17.0 | 10.0 | 0.0  | 32.1 |
| Volume/Cap:               | 0.19 | 0.32 | 0.13 | 0.07 | 0.47 | 0.05 | 0.10 | 0.00 | 0.38 | 0.13 | 0.00 | 0.16 |
| Uniform Del:              | 31.4 | 13.2 | 12.0 | 19.0 | 6.5  | 4.7  | 28.5 | 0.0  | 24.6 | 28.7 | 0.0  | 13.2 |
| IncrcmntDel:              | 0.6  | 0.1  | 0.1  | 0.1  | 0.1  | 0.0  | 0.2  | 0.0  | 0.6  | 0.2  | 0.0  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 31.9 | 13.2 | 12.0 | 19.1 | 6.6  | 4.7  | 28.7 | 0.0  | 25.2 | 28.9 | 0.0  | 13.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 31.9 | 13.2 | 12.0 | 19.1 | 6.6  | 4.7  | 28.7 | 0.0  | 25.2 | 28.9 | 0.0  | 13.3 |
| LOS by Move:              | C    | B    | B    | B-   | A    | A    | C    | A    | C    | C    | A    | B    |
| HCM2kAvgQ:                | 1    | 4    | 1    | 1    | 7    | 0    | 1    | 0    | 4    | 1    | 0    | 2    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd MD

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 38   | 984  | 106  | 39   | 2371 | 112  | 23   | 0    | 153  | 38   | 0    | 123  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 38   | 984  | 106  | 39   | 2371 | 112  | 23   | 0    | 153  | 38   | 0    | 123  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 38   | 984  | 106  | 39   | 2371 | 112  | 23   | 0    | 153  | 38   | 0    | 123  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 38   | 984  | 106  | 39   | 2371 | 112  | 23   | 0    | 153  | 38   | 0    | 123  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 38   | 984  | 106  | 39   | 2371 | 112  | 23   | 0    | 153  | 38   | 0    | 123  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 38   | 984  | 106  | 39   | 2371 | 112  | 23   | 0    | 153  | 38   | 0    | 123  |

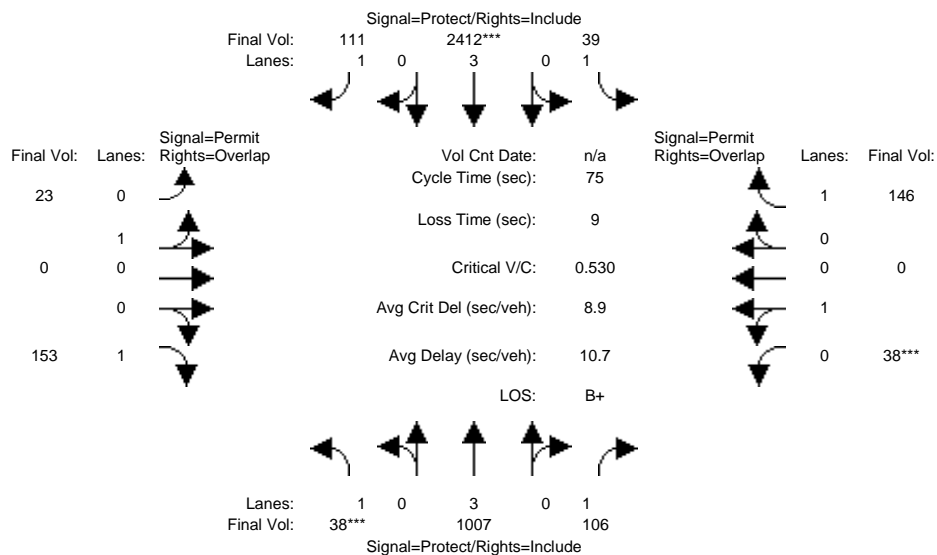
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1800 | 0    | 1750 | 1800 | 0    | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.17 | 0.06 | 0.02 | 0.42 | 0.06 | 0.01 | 0.00 | 0.09 | 0.02 | 0.00 | 0.07 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 7.0  | 36.3 | 36.3 | 19.7 | 49.0 | 49.0 | 10.0 | 0.0  | 17.0 | 10.0 | 0.0  | 29.7 |
| Volume/Cap:               | 0.23 | 0.36 | 0.12 | 0.09 | 0.64 | 0.10 | 0.10 | 0.00 | 0.39 | 0.16 | 0.00 | 0.18 |
| Uniform Del:              | 31.5 | 12.0 | 10.6 | 20.9 | 7.7  | 4.8  | 28.5 | 0.0  | 24.6 | 28.8 | 0.0  | 14.7 |
| IncrcmntDel:              | 0.7  | 0.1  | 0.1  | 0.1  | 0.4  | 0.0  | 0.2  | 0.0  | 0.6  | 0.3  | 0.0  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 32.2 | 12.1 | 10.7 | 21.0 | 8.1  | 4.9  | 28.7 | 0.0  | 25.2 | 29.1 | 0.0  | 14.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 32.2 | 12.1 | 10.7 | 21.0 | 8.1  | 4.9  | 28.7 | 0.0  | 25.2 | 29.1 | 0.0  | 14.9 |
| LOS by Move:              | C-   | B    | B+   | C+   | A    | A    | C    | A    | C    | C    | A    | B    |
| HCM2kAvgQ:                | 1    | 5    | 1    | 1    | 11   | 1    | 1    | 0    | 4    | 1    | 0    | 2    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P MD

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 38   | 984  | 106  | 39   | 2371 | 112  | 23   | 0    | 153  | 38   | 0    | 123  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 38   | 984  | 106  | 39   | 2371 | 112  | 23   | 0    | 153  | 38   | 0    | 123  |
| Added Vol:     | 0    | 23   | 0    | 0    | 41   | -1   | 0    | 0    | 0    | 0    | 0    | 23   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 38   | 1007 | 106  | 39   | 2412 | 111  | 23   | 0    | 153  | 38   | 0    | 146  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 38   | 1007 | 106  | 39   | 2412 | 111  | 23   | 0    | 153  | 38   | 0    | 146  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 38   | 1007 | 106  | 39   | 2412 | 111  | 23   | 0    | 153  | 38   | 0    | 146  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 38   | 1007 | 106  | 39   | 2412 | 111  | 23   | 0    | 153  | 38   | 0    | 146  |

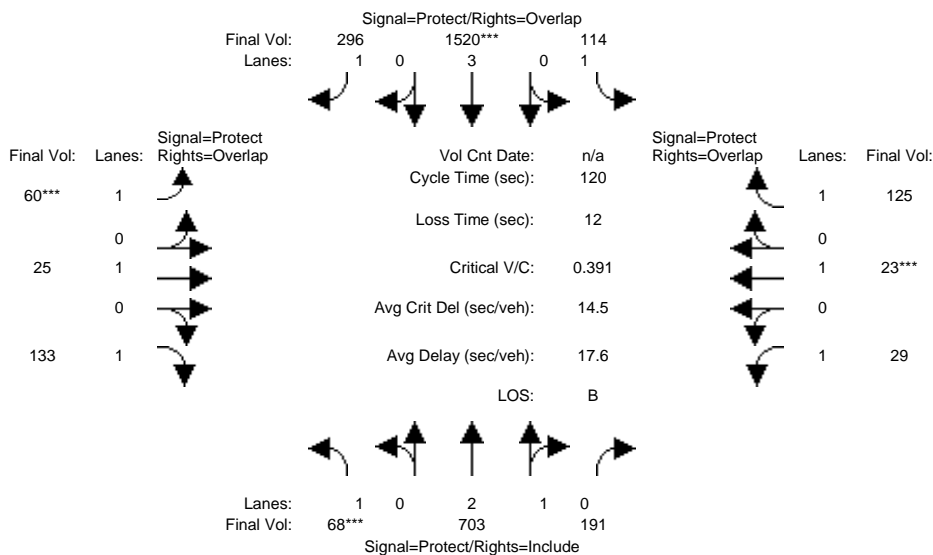
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1800 | 0    | 1750 | 1800 | 0    | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.18 | 0.06 | 0.02 | 0.42 | 0.06 | 0.01 | 0.00 | 0.09 | 0.02 | 0.00 | 0.08 |
| Crit Moves:               | ***  |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 7.0  | 36.6 | 36.6 | 19.4 | 49.0 | 49.0 | 10.0 | 0.0  | 17.0 | 10.0 | 0.0  | 29.4 |
| Volume/Cap:               | 0.23 | 0.36 | 0.12 | 0.09 | 0.65 | 0.10 | 0.10 | 0.00 | 0.39 | 0.16 | 0.00 | 0.21 |
| Uniform Del:              | 31.5 | 11.9 | 10.4 | 21.1 | 7.8  | 4.8  | 28.5 | 0.0  | 24.6 | 28.8 | 0.0  | 15.2 |
| IncrcmntDel:              | 0.7  | 0.1  | 0.1  | 0.1  | 0.4  | 0.0  | 0.2  | 0.0  | 0.6  | 0.3  | 0.0  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 32.2 | 12.0 | 10.5 | 21.2 | 8.2  | 4.8  | 28.7 | 0.0  | 25.2 | 29.1 | 0.0  | 15.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 32.2 | 12.0 | 10.5 | 21.2 | 8.2  | 4.8  | 28.7 | 0.0  | 25.2 | 29.1 | 0.0  | 15.3 |
| LOS by Move:              | C-   | B+   | B+   | C+   | A    | A    | C    | A    | C    | C    | A    | B    |
| HCM2kAvgQ:                | 1    | 5    | 1    | 1    | 11   | 1    | 1    | 0    | 4    | 1    | 0    | 2    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing MD

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Mathilda Ave |      |      |      |      |      | California Ave |      |      |      |      |      |
|----------------|--------------|------|------|------|------|------|----------------|------|------|------|------|------|
| Base Vol:      | 68           | 703  | 191  | 114  | 1520 | 296  | 60             | 25   | 133  | 29   | 23   | 125  |
| Growth Adj:    | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 68           | 703  | 191  | 114  | 1520 | 296  | 60             | 25   | 133  | 29   | 23   | 125  |
| Added Vol:     | 0            | 0    | 0    | 0    | 0    | 0    | 0              | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0            | 0    | 0    | 0    | 0    | 0    | 0              | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 68           | 703  | 191  | 114  | 1520 | 296  | 60             | 25   | 133  | 29   | 23   | 125  |
| User Adj:      | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 68           | 703  | 191  | 114  | 1520 | 296  | 60             | 25   | 133  | 29   | 23   | 125  |
| Reduct Vol:    | 0            | 0    | 0    | 0    | 0    | 0    | 0              | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 68           | 703  | 191  | 114  | 1520 | 296  | 60             | 25   | 133  | 29   | 23   | 125  |
| PCE Adj:       | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 68           | 703  | 191  | 114  | 1520 | 296  | 60             | 25   | 133  | 29   | 23   | 125  |

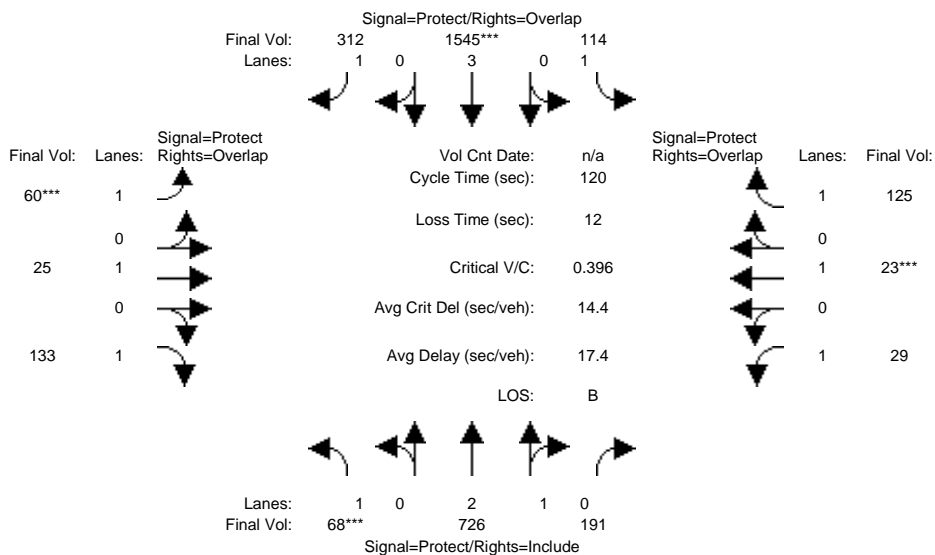
| Saturation Flow Module: | Mathilda Ave |      |      |      |      |      | California Ave |      |      |      |      |      |
|-------------------------|--------------|------|------|------|------|------|----------------|------|------|------|------|------|
| Sat/Lane:               | 1900         | 1900 | 1900 | 1900 | 1900 | 1900 | 1900           | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92         | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92           | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00         | 2.34 | 0.66 | 1.00 | 3.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750         | 4402 | 1196 | 1750 | 5700 | 1750 | 1750           | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: | Mathilda Ave |      |      |      |      |      | California Ave |      |      |      |      |      |
|---------------------------|--------------|------|------|------|------|------|----------------|------|------|------|------|------|
| Vol/Sat:                  | 0.04         | 0.16 | 0.16 | 0.07 | 0.27 | 0.17 | 0.03           | 0.01 | 0.08 | 0.02 | 0.01 | 0.07 |
| Crit Moves:               | ***          |      |      |      | ***  |      | ***            |      |      |      | ***  |      |
| Green Time:               | 11.2         | 62.6 | 62.6 | 25.5 | 76.9 | 86.8 | 9.9            | 11.7 | 22.9 | 8.2  | 10.0 | 35.5 |
| Volume/Cap:               | 0.42         | 0.31 | 0.31 | 0.31 | 0.42 | 0.23 | 0.42           | 0.13 | 0.40 | 0.24 | 0.15 | 0.24 |
| Uniform Del:              | 51.3         | 16.3 | 16.3 | 39.8 | 10.6 | 5.5  | 52.3           | 49.5 | 42.5 | 53.0 | 51.0 | 32.0 |
| IncrcmntDel:              | 1.7          | 0.1  | 0.1  | 0.5  | 0.1  | 0.1  | 1.9            | 0.3  | 0.8  | 1.1  | 0.4  | 0.2  |
| InitQueueDel:             | 0.0          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 53.0         | 16.4 | 16.4 | 40.2 | 10.6 | 5.6  | 54.3           | 49.9 | 43.3 | 54.0 | 51.5 | 32.3 |
| User DelAdj:              | 1.00         | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 53.0         | 16.4 | 16.4 | 40.2 | 10.6 | 5.6  | 54.3           | 49.9 | 43.3 | 54.0 | 51.5 | 32.3 |
| LOS by Move:              | D-           | B    | B    | D    | B+   | A    | D-             | D    | D    | D-   | D-   | C-   |
| HCM2kAvgQ:                | 3            | 6    | 6    | 4    | 9    | 4    | 3              | 1    | 5    | 1    | 1    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 68   | 703  | 191  | 114  | 1520 | 296  | 60   | 25   | 133  | 29   | 23   | 125  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 68   | 703  | 191  | 114  | 1520 | 296  | 60   | 25   | 133  | 29   | 23   | 125  |
| Added Vol:     | 0    | 23   | 0    | 0    | 25   | 16   | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 68   | 726  | 191  | 114  | 1545 | 312  | 60   | 25   | 133  | 29   | 23   | 125  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 68   | 726  | 191  | 114  | 1545 | 312  | 60   | 25   | 133  | 29   | 23   | 125  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 68   | 726  | 191  | 114  | 1545 | 312  | 60   | 25   | 133  | 29   | 23   | 125  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 68   | 726  | 191  | 114  | 1545 | 312  | 60   | 25   | 133  | 29   | 23   | 125  |

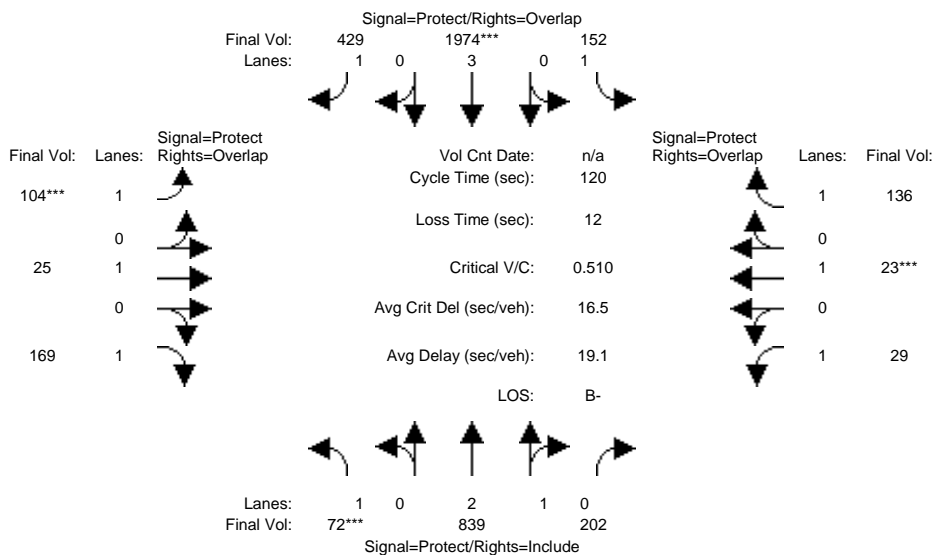
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 2.35 | 0.65 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 4432 | 1166 | 1750 | 5700 | 1750 | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.16 | 0.16 | 0.07 | 0.27 | 0.18 | 0.03 | 0.01 | 0.08 | 0.02 | 0.01 | 0.07 |
| Crit Moves:               | ***  |      |      |      | **** |      | **** |      |      |      | **** |      |
| Green Time:               | 11.1 | 63.1 | 63.1 | 25.1 | 77.2 | 86.9 | 9.8  | 11.6 | 22.7 | 8.1  | 10.0 | 35.1 |
| Volume/Cap:               | 0.42 | 0.31 | 0.31 | 0.31 | 0.42 | 0.25 | 0.42 | 0.14 | 0.40 | 0.24 | 0.15 | 0.24 |
| Uniform Del:              | 51.4 | 16.1 | 16.1 | 40.1 | 10.5 | 5.5  | 52.4 | 49.6 | 42.7 | 53.0 | 51.0 | 32.3 |
| IncrcmntDel:              | 1.8  | 0.1  | 0.1  | 0.5  | 0.1  | 0.1  | 2.0  | 0.3  | 0.8  | 1.1  | 0.4  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 53.2 | 16.2 | 16.2 | 40.6 | 10.6 | 5.6  | 54.4 | 49.9 | 43.5 | 54.1 | 51.5 | 32.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 53.2 | 16.2 | 16.2 | 40.6 | 10.6 | 5.6  | 54.4 | 49.9 | 43.5 | 54.1 | 51.5 | 32.6 |
| LOS by Move:              | D-   | B    | B    | D    | B+   | A    | D-   | D    | D    | D-   | D-   | C-   |
| HCM2kAvgQ:                | 3    | 6    | 6    | 4    | 9    | 4    | 3    | 1    | 5    | 1    | 1    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 72   | 839  | 202  | 152  | 1974 | 429  | 104  | 25   | 169  | 29   | 23   | 136  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 72   | 839  | 202  | 152  | 1974 | 429  | 104  | 25   | 169  | 29   | 23   | 136  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 72   | 839  | 202  | 152  | 1974 | 429  | 104  | 25   | 169  | 29   | 23   | 136  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 72   | 839  | 202  | 152  | 1974 | 429  | 104  | 25   | 169  | 29   | 23   | 136  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 72   | 839  | 202  | 152  | 1974 | 429  | 104  | 25   | 169  | 29   | 23   | 136  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 72   | 839  | 202  | 152  | 1974 | 429  | 104  | 25   | 169  | 29   | 23   | 136  |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 2.40 | 0.60 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 4512 | 1086 | 1750 | 5700 | 1750 | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 |

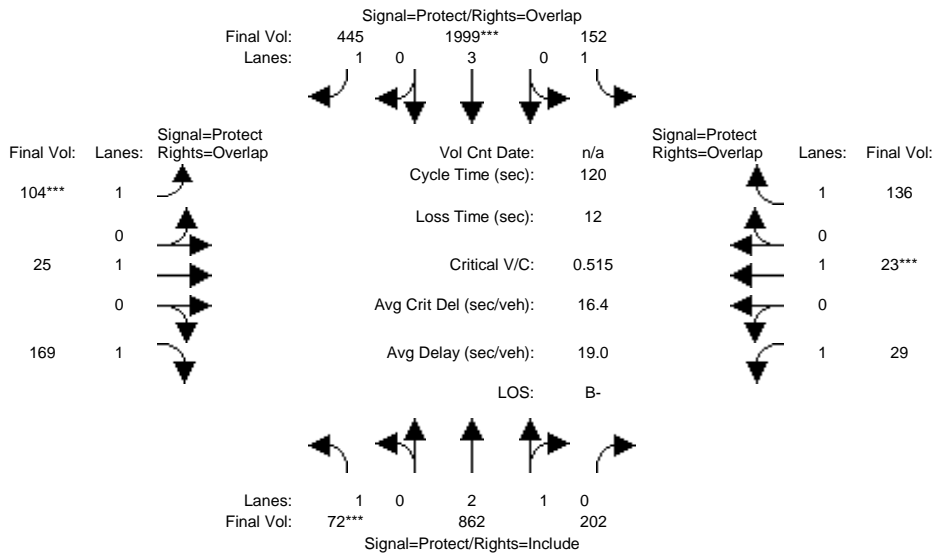
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.19 | 0.19 | 0.09 | 0.35 | 0.25 | 0.06 | 0.01 | 0.10 | 0.02 | 0.01 | 0.08 |
| Crit Moves:               | ***  |      |      |      | ***  |      | ***  |      |      |      | ***  |      |
| Green Time:               | 9.0  | 57.9 | 57.9 | 27.1 | 75.9 | 89.0 | 13.0 | 13.5 | 22.6 | 9.5  | 10.0 | 37.1 |
| Volume/Cap:               | 0.55 | 0.39 | 0.39 | 0.39 | 0.55 | 0.33 | 0.55 | 0.12 | 0.51 | 0.21 | 0.15 | 0.25 |
| Uniform Del:              | 53.5 | 19.7 | 19.7 | 39.4 | 12.4 | 5.3  | 50.7 | 47.8 | 43.8 | 51.7 | 51.0 | 31.1 |
| IncrcmntDel:              | 4.8  | 0.1  | 0.1  | 0.6  | 0.2  | 0.2  | 3.3  | 0.2  | 1.4  | 0.8  | 0.4  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 58.3 | 19.8 | 19.8 | 40.0 | 12.5 | 5.5  | 54.0 | 48.1 | 45.2 | 52.5 | 51.5 | 31.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 58.3 | 19.8 | 19.8 | 40.0 | 12.5 | 5.5  | 54.0 | 48.1 | 45.2 | 52.5 | 51.5 | 31.3 |
| LOS by Move:              | E+   | B-   | B-   | D    | B    | A    | D-   | D    | D    | D-   | D-   | C    |
| HCM2kAvgQ:                | 4    | 8    | 8    | 5    | 13   | 6    | 5    | 1    | 7    | 1    | 1    | 4    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P MD

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 72   | 839  | 202  | 152  | 1974 | 429  | 104  | 25   | 169  | 29   | 23   | 136  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 72   | 839  | 202  | 152  | 1974 | 429  | 104  | 25   | 169  | 29   | 23   | 136  |
| Added Vol:     | 0    | 23   | 0    | 0    | 25   | 16   | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 72   | 862  | 202  | 152  | 1999 | 445  | 104  | 25   | 169  | 29   | 23   | 136  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 72   | 862  | 202  | 152  | 1999 | 445  | 104  | 25   | 169  | 29   | 23   | 136  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 72   | 862  | 202  | 152  | 1999 | 445  | 104  | 25   | 169  | 29   | 23   | 136  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 72   | 862  | 202  | 152  | 1999 | 445  | 104  | 25   | 169  | 29   | 23   | 136  |

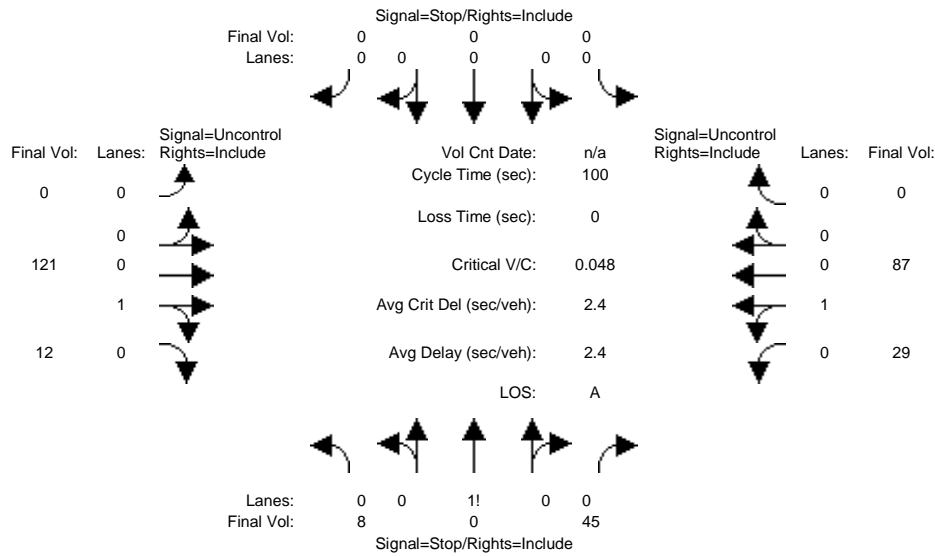
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 2.41 | 0.59 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 4535 | 1063 | 1750 | 5700 | 1750 | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.19 | 0.19 | 0.09 | 0.35 | 0.25 | 0.06 | 0.01 | 0.10 | 0.02 | 0.01 | 0.08 |
| Crit Moves:               | **** |      |      |      | **** |      | **** |      |      | **** |      |      |
| Green Time:               | 8.9  | 58.4 | 58.4 | 26.7 | 76.2 | 89.1 | 12.9 | 13.5 | 22.4 | 9.4  | 10.0 | 36.7 |
| Volume/Cap:               | 0.55 | 0.39 | 0.39 | 0.39 | 0.55 | 0.34 | 0.55 | 0.12 | 0.52 | 0.21 | 0.15 | 0.25 |
| Uniform Del:              | 53.6 | 19.5 | 19.5 | 39.7 | 12.3 | 5.3  | 50.8 | 47.9 | 43.9 | 51.8 | 51.0 | 31.4 |
| IncrcmntDel:              | 5.1  | 0.1  | 0.1  | 0.7  | 0.2  | 0.2  | 3.5  | 0.2  | 1.5  | 0.8  | 0.4  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 58.7 | 19.6 | 19.6 | 40.4 | 12.5 | 5.5  | 54.3 | 48.2 | 45.4 | 52.6 | 51.5 | 31.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 58.7 | 19.6 | 19.6 | 40.4 | 12.5 | 5.5  | 54.3 | 48.2 | 45.4 | 52.6 | 51.5 | 31.6 |
| LOS by Move:              | E+   | B-   | B-   | D    | B    | A    | D-   | D    | D    | D-   | D-   | C    |
| HCM2kAvgQ:                | 4    | 8    | 8    | 5    | 13   | 6    | 5    | 1    | 7    | 1    | 1    | 4    |

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

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Volume, Potent Capacity, Move Capacity, and Volume/Capacity.

Table with 13 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Delay, LOS by Move, Shared Capacity, Shared Queue, Shrd ConDel, Shared LOS, Approach Delay, and Approach LOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 8 0 45      | 0 0 0       | 0 121 12     | 29 87 0      |
| ApproachDel: | 9.3         | xxxxxx      | 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=53]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=3][total volume=302]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #9 San Aleso Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 8 0 45      | 0 0 0       | 0 121 12     | 29 87 0      |

Major Street Volume: 249  
 Minor Approach Volume: 53  
 Minor Approach Volume Threshold: 590

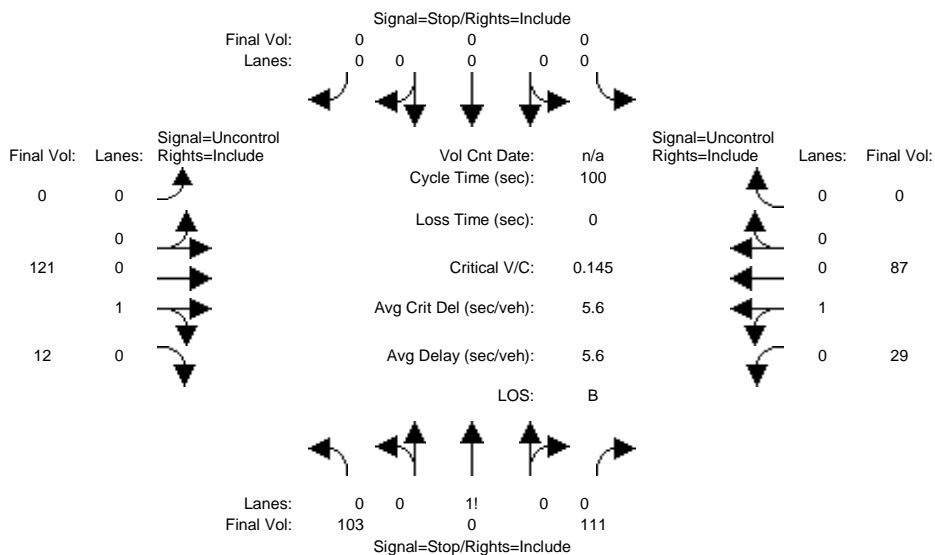
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Existing+P MD

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

|              |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:    | 8    | 0    | 45   | 0    | 0    | 0    | 0    | 121  | 12   | 29   | 87   | 0    |
| Growth Adj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 8    | 0    | 45   | 0    | 0    | 0    | 0    | 121  | 12   | 29   | 87   | 0    |
| Added Vol:   | 95   | 0    | 66   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol: | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut: | 103  | 0    | 111  | 0    | 0    | 0    | 0    | 121  | 12   | 29   | 87   | 0    |
| User Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:  | 103  | 0    | 111  | 0    | 0    | 0    | 0    | 121  | 12   | 29   | 87   | 0    |
| Reduct Vol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume: | 103  | 0    | 111  | 0    | 0    | 0    | 0    | 121  | 12   | 29   | 87   | 0    |

Critical Gap Module:

|              |     |     |     |       |      |       |       |      |       |     |      |       |
|--------------|-----|-----|-----|-------|------|-------|-------|------|-------|-----|------|-------|
| Critical Gp: | 6.4 | 6.5 | 6.2 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx |

Capacity Module:

|              |      |      |      |      |      |       |      |      |       |      |      |       |
|--------------|------|------|------|------|------|-------|------|------|-------|------|------|-------|
| Cnflct Vol:  | 272  | 272  | 127  | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 133  | xxxx | xxxxx |
| Potent Cap.: | 722  | 638  | 929  | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1464 | xxxx | xxxxx |
| Move Cap.:   | 711  | 625  | 929  | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1464 | xxxx | xxxxx |
| Volume/Cap:  | 0.14 | 0.00 | 0.12 | xxxx | xxxx | xxxx  | xxxx | xxxx | xxxx  | 0.02 | xxxx | xxxx  |

Level Of Service Module:

|              |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:   | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | 0.1           | xxxx          | xxxxx         |
| Control Del: | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 7.5           | xxxx          | xxxxx         |
| LOS by Move: | *             | *             | *             | *             | *             | *             | *             | *             | *             | A             | *             | *             |
| Movement:    | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.: | xxxx          | 809           | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         |
| SharedQueue: | xxxxx         | 1.1           | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 0.1           | xxxx          | xxxxx         |
| Shrd ConDel: | xxxxx         | 11.0          | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 7.5           | xxxx          | xxxxx         |
| Shared LOS:  | *             | B             | *             | *             | *             | *             | *             | *             | *             | A             | *             | *             |
| ApproachDel: | 11.0          |               |               | xxxxxx        |               |               | xxxxxx        |               | xxxxxx        |               |               |               |
| ApproachLOS: |               | B             |               | *             |               |               | *             |               | *             |               | *             |               |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #9 San Aleso Ave & Ahwanee Ave

\*\*\*\*\*

Future 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     | L            | T  | R     |
| Control:     | Stop Sign   |   |        | Stop Sign   |   |       | Uncontrolled |     |       | Uncontrolled |    |       |
| Lanes:       | 0           | 0 | 1! 0 0 | 0           | 0 | 0 0 0 | 0            | 0   | 0 1 0 | 0            | 1  | 0 0 0 |
| Initial Vol: | 103         | 0 | 111    | 0           | 0 | 0     | 0            | 121 | 12    | 29           | 87 | 0     |
| ApproachDel: | 11.0        |   |        | xxxxxx      |   |       | xxxxxx       |     |       | xxxxxx       |    |       |

```

Approach[northbound][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=214]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=463]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
Intersection #9 San Aleso Ave & Ahwanee Ave  
\*\*\*\*\*

Future 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     | L            | T  | R     |
| Control:     | Stop Sign   |   |        | Stop Sign   |   |       | Uncontrolled |     |       | Uncontrolled |    |       |
| Lanes:       | 0           | 0 | 1! 0 0 | 0           | 0 | 0 0 0 | 0            | 0   | 0 1 0 | 0            | 1  | 0 0 0 |
| Initial Vol: | 103         | 0 | 111    | 0           | 0 | 0     | 0            | 121 | 12    | 29           | 87 | 0     |

Major Street Volume: 249  
Minor Approach Volume: 214  
Minor Approach Volume Threshold: 590

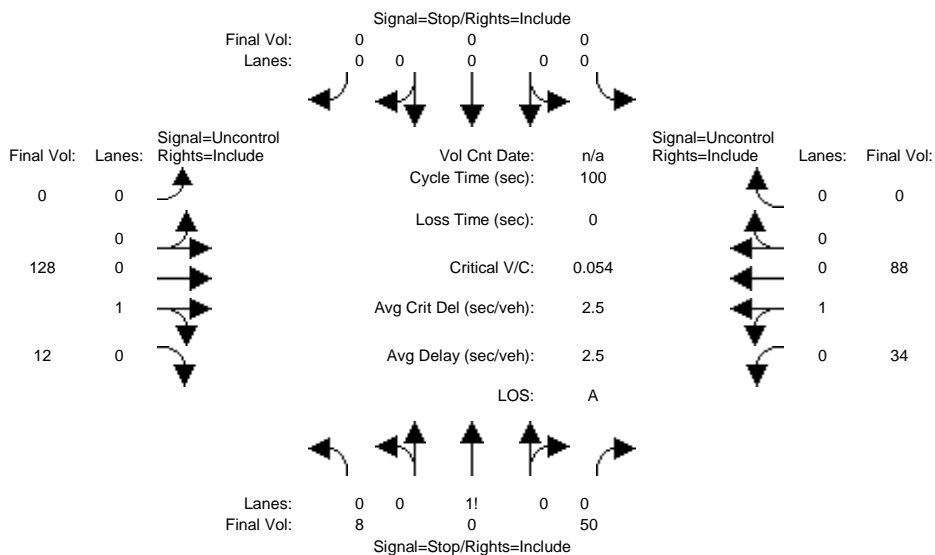
-----  
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd MD

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 8 0 50      | 0 0 0       | 0 128 12     | 34 88 0      |
| ApproachDel: | 9.4         | xxxxxx      | 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=58]
    FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=320]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #9 San Aleso Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 8 0 50      | 0 0 0       | 0 128 12     | 34 88 0      |

```

Major Street Volume:          262
Minor Approach Volume:        58
Minor Approach Volume Threshold: 577
    
```

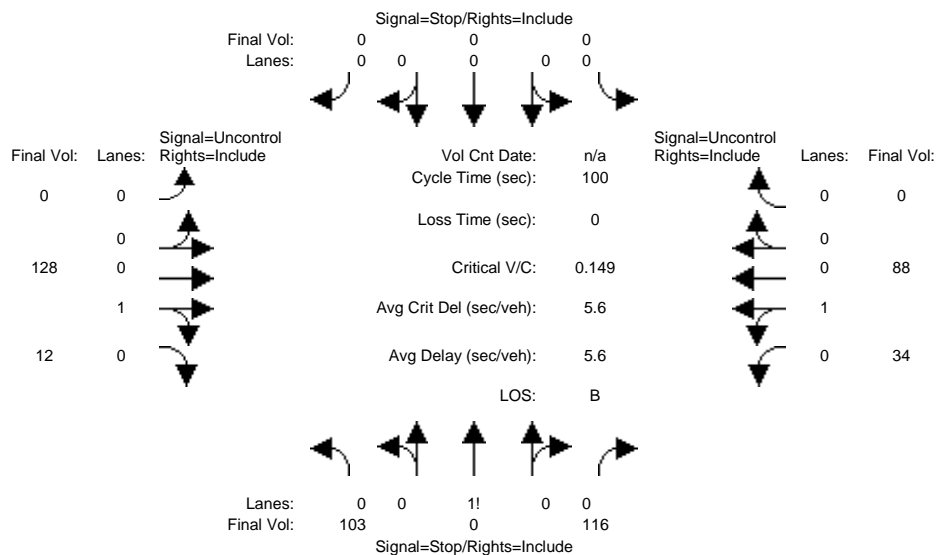
-----  
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P MD

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 13 columns representing critical gap modules. Rows include Critical Gp and FollowUpTim.

Table with 13 columns representing capacity modules. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 103 0 116   | 0 0 0 0     | 0 128 12     | 34 88 0      |
| ApproachDel: | 11.2        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][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=219]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=481]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
Intersection #9 San Aleso Ave & Ahwanee Ave  
\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 103 0 116   | 0 0 0 0     | 0 128 12     | 34 88 0      |

```

Major Street Volume:          262
Minor Approach Volume:       219
Minor Approach Volume Threshold: 577
    
```

-----  
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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing MD

Intersection #10: Borregas Ave & Ahwanee Ave

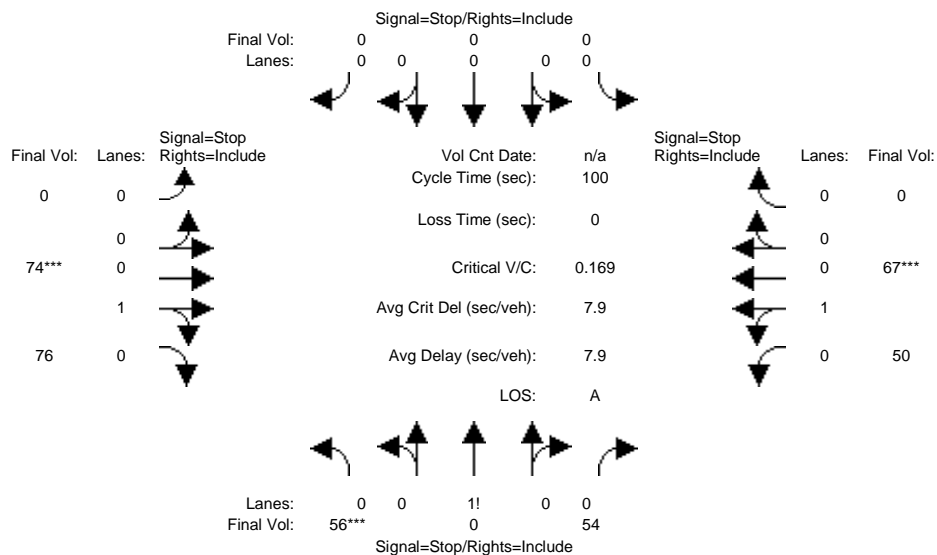


Table with columns for Street Name (Borregas Ave, Ahwanee Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), and Min. Green values.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each movement.

Saturation Flow Module table showing Adjustment, Lanes, and Final Sat values for each movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ values.

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*
Intersection #10 Borregas Ave & Ahwanee Ave
\*\*\*\*\*
Future 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  | L  | - | T  | - | R |
| Control:                         | Stop Sign   |   |   |   | Stop Sign   |   |   |   | Stop Sign  |   |   |   | Stop Sign  |   |    |    |   |    |   |   |
| Lanes:                           | 0           | 0 | 1 | 0 | 0           | 0 | 0 | 0 | 0          | 0 | 0 | 0 | 0          | 1 | 0  | 0  | 1 | 0  | 0 | 0 |
| Initial Vol:                     | 56          |   | 0 |   | 54          | 0 |   | 0 |            | 0 | 0 |   | 74         |   | 76 | 50 |   | 67 |   | 0 |
| Major Street Volume:             |             |   |   |   | 267         |   |   |   |            |   |   |   |            |   |    |    |   |    |   |   |
| Minor Approach Volume:           |             |   |   |   | 110         |   |   |   |            |   |   |   |            |   |    |    |   |    |   |   |
| Minor Approach Volume Threshold: |             |   |   |   | 572         |   |   |   |            |   |   |   |            |   |    |    |   |    |   |   |

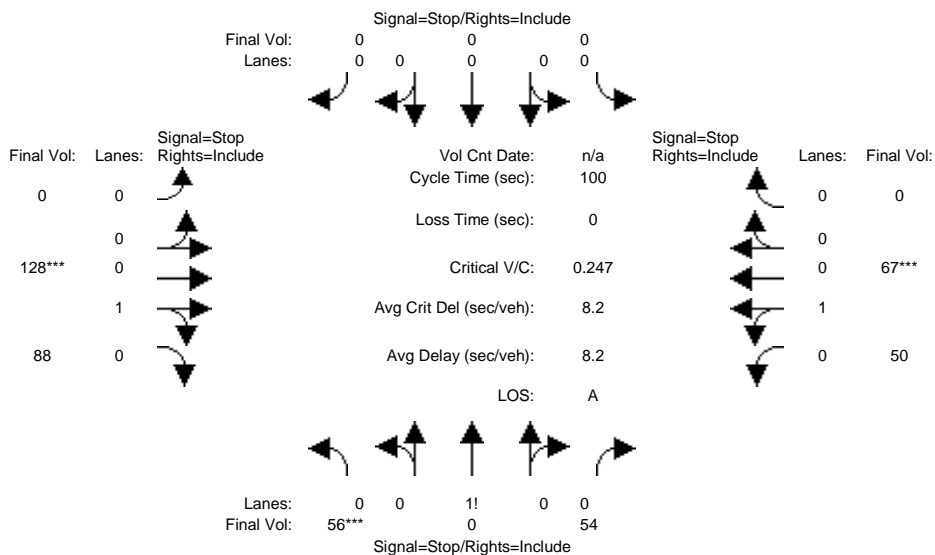
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing+P MD

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
|              | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Approach:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Movement:    |              |   |   |             |   |   |             |   |   |            |   |   |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 56   | 0    | 54   | 0    | 0    | 0    | 0    | 74   | 76   | 50   | 67   | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 56   | 0    | 54   | 0    | 0    | 0    | 0    | 74   | 76   | 50   | 67   | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 54   | 12   | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 56   | 0    | 54   | 0    | 0    | 0    | 0    | 128  | 88   | 50   | 67   | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 56   | 0    | 54   | 0    | 0    | 0    | 0    | 128  | 88   | 50   | 67   | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 56   | 0    | 54   | 0    | 0    | 0    | 0    | 128  | 88   | 50   | 67   | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 56   | 0    | 54   | 0    | 0    | 0    | 0    | 128  | 88   | 50   | 67   | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.51 | 0.00 | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.59 | 0.41 | 0.43 | 0.57 | 0.00 |
| Final Sat.:             | 395  | 0    | 381  | 0    | 0    | 0    | 0    | 518  | 356  | 338  | 453  | 0    |

| Capacity Analysis Module: |      |      |      |        |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|--------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.14 | xxxx | 0.14 | xxxx   | xxxx | xxxx | xxxx | 0.25 | 0.25 | 0.15 | 0.15 | xxxx |
| Crit Moves:               | **** |      |      |        |      |      |      | **** |      |      | **** |      |
| Delay/Veh:                | 8.1  | 0.0  | 8.1  | 0.0    | 0.0  | 0.0  | 0.0  | 8.3  | 8.3  | 8.2  | 8.2  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.1  | 0.0  | 8.1  | 0.0    | 0.0  | 0.0  | 0.0  | 8.3  | 8.3  | 8.2  | 8.2  | 0.0  |
| LOS by Move:              | A    | *    | A    | *      | *    | *    | *    | A    | A    | A    | A    | *    |
| ApproachDel:              | 8.1  |      |      | xxxxxx |      |      |      | 8.3  |      |      | 8.2  |      |
| Delay Adj:                | 1.00 |      |      | xxxxxx |      |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               | 8.1  |      |      | xxxxxx |      |      |      | 8.3  |      |      | 8.2  |      |
| LOS by Appr:              | A    |      |      | *      |      |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.1  | 0.1  | 0.1  | 0.0    | 0.0  | 0.0  | 0.3  | 0.3  | 0.3  | 0.2  | 0.2  | 0.2  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #10 Borregas Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |   |   |   | South Bound |   |   |   | East Bound |   |   |   | West Bound |   |    |    |   |    |   |   |
|----------------------------------|-------------|---|---|---|-------------|---|---|---|------------|---|---|---|------------|---|----|----|---|----|---|---|
| Movement:                        | L           | - | T | - | R           | L | - | T | -          | R | L | - | T          | - | R  | L  | - | T  | - | R |
| Control:                         | Stop Sign   |   |   |   | Stop Sign   |   |   |   | Stop Sign  |   |   |   | Stop Sign  |   |    |    |   |    |   |   |
| Lanes:                           | 0           | 0 | 1 | 0 | 0           | 0 | 0 | 0 | 0          | 0 | 0 | 0 | 0          | 1 | 0  | 0  | 1 | 0  | 0 | 0 |
| Initial Vol:                     | 56          |   | 0 |   | 54          | 0 |   | 0 |            | 0 | 0 |   | 128        |   | 88 | 50 |   | 67 |   | 0 |
| Major Street Volume:             |             |   |   |   | 333         |   |   |   |            |   |   |   |            |   |    |    |   |    |   |   |
| Minor Approach Volume:           |             |   |   |   | 110         |   |   |   |            |   |   |   |            |   |    |    |   |    |   |   |
| Minor Approach Volume Threshold: |             |   |   |   | 513         |   |   |   |            |   |   |   |            |   |    |    |   |    |   |   |

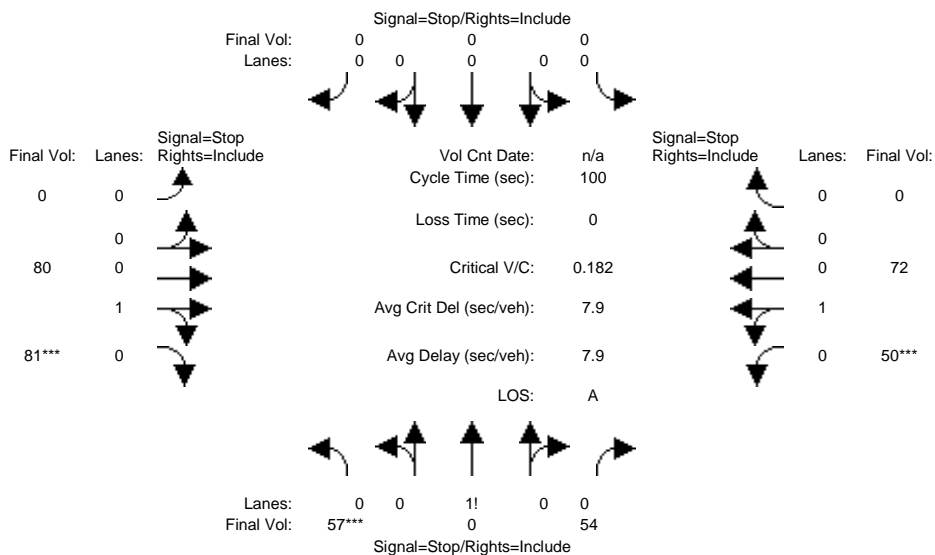
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Bkgd MD

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
|              | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Approach:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Movement:    |              |   |   |             |   |   |             |   |   |            |   |   |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 57   | 0    | 54   | 0    | 0    | 0    | 0    | 80   | 81   | 50   | 72   | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 57   | 0    | 54   | 0    | 0    | 0    | 0    | 80   | 81   | 50   | 72   | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 57   | 0    | 54   | 0    | 0    | 0    | 0    | 80   | 81   | 50   | 72   | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 57   | 0    | 54   | 0    | 0    | 0    | 0    | 80   | 81   | 50   | 72   | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 57   | 0    | 54   | 0    | 0    | 0    | 0    | 80   | 81   | 50   | 72   | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 57   | 0    | 54   | 0    | 0    | 0    | 0    | 80   | 81   | 50   | 72   | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.51 | 0.00 | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.41 | 0.59 | 0.00 |
| Final Sat.:             | 411  | 0    | 389  | 0    | 0    | 0    | 0    | 439  | 445  | 328  | 473  | 0    |

| Capacity Analysis Module: |      |      |      |        |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|--------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.14 | xxxx | 0.14 | xxxx   | xxxx | xxxx | xxxx | 0.18 | 0.18 | 0.15 | 0.15 | xxxx |
| Crit Moves:               | **** |      |      |        |      |      |      | **** | **** |      |      |      |
| Delay/Veh:                | 7.9  | 0.0  | 7.9  | 0.0    | 0.0  | 0.0  | 0.0  | 7.8  | 7.8  | 8.1  | 8.1  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 7.9  | 0.0  | 7.9  | 0.0    | 0.0  | 0.0  | 0.0  | 7.8  | 7.8  | 8.1  | 8.1  | 0.0  |
| LOS by Move:              | A    | *    | A    | *      | *    | *    | *    | A    | A    | A    | A    | *    |
| ApproachDel:              | 7.9  |      |      | xxxxxx |      |      | 7.8  |      |      | 8.1  |      |      |
| Delay Adj:                | 1.00 |      |      | xxxxxx |      |      | 1.00 |      |      | 1.00 |      |      |
| ApprAdjDel:               | 7.9  |      |      | xxxxxx |      |      | 7.8  |      |      | 8.1  |      |      |
| LOS by Appr:              | A    |      |      | *      |      |      | A    |      |      | A    |      |      |
| AllWayAvgQ:               | 0.1  | 0.1  | 0.1  | 0.0    | 0.0  | 0.0  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #10 Borregas Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |   |   |    | South Bound |   |   |   | East Bound |   |    |   | West Bound |    |   |    |   |   |
|----------------------------------|-------------|---|---|----|-------------|---|---|---|------------|---|----|---|------------|----|---|----|---|---|
| Movement:                        | L           | T | R |    | L           | T | R |   | L          | T | R  |   | L          | T  | R |    |   |   |
| Control:                         | Stop Sign   |   |   |    | Stop Sign   |   |   |   | Stop Sign  |   |    |   | Stop Sign  |    |   |    |   |   |
| Lanes:                           | 0           | 0 | 1 | 0  | 0           | 0 | 0 | 0 | 0          | 0 | 0  | 1 | 0          | 0  | 1 | 0  | 0 | 0 |
| Initial Vol:                     | 57          |   | 0 | 54 | 0           |   | 0 | 0 | 0          | 0 | 80 |   | 81         | 50 |   | 72 |   | 0 |
| Major Street Volume:             |             |   |   |    | 283         |   |   |   |            |   |    |   |            |    |   |    |   |   |
| Minor Approach Volume:           |             |   |   |    | 111         |   |   |   |            |   |    |   |            |    |   |    |   |   |
| Minor Approach Volume Threshold: |             |   |   |    | 556         |   |   |   |            |   |    |   |            |    |   |    |   |   |

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Bkgd+P MD

Intersection #10: Borregas Ave & Ahwanee Ave

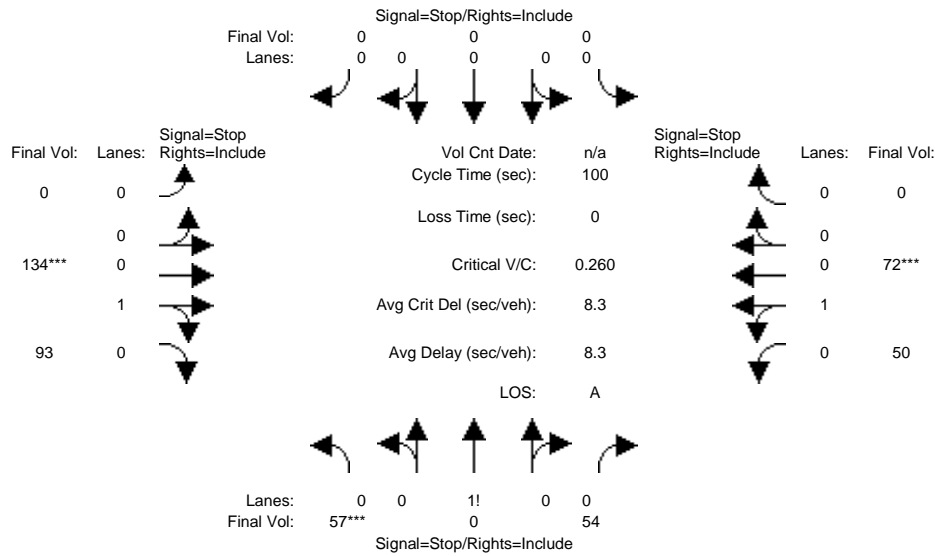


Table with columns for Street Name (Borregas Ave, Ahwanee Ave), Approach (North Bound, South Bound, East Bound, West Bound), and Movement (L, T, R). It lists Min. Green values for each movement.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each approach and movement.

Saturation Flow Module table showing Adjustment, Lanes, and Final Sat. values for each approach and movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ for each approach and movement.

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*
Intersection #10 Borregas Ave & Ahwanee Ave
\*\*\*\*\*
Future Volume Alternative: Peak Hour Warrant NOT Met



|                                  | North Bound |   |   |    | South Bound |   |   |   | East Bound |     |   |    | West Bound |    |   |   |   |   |   |   |
|----------------------------------|-------------|---|---|----|-------------|---|---|---|------------|-----|---|----|------------|----|---|---|---|---|---|---|
| Movement:                        | L           | T | R |    | L           | T | R |   | L          | T   | R |    | L          | T  | R |   |   |   |   |   |
| Control:                         | Stop Sign   |   |   |    | Stop Sign   |   |   |   | Stop Sign  |     |   |    | Stop Sign  |    |   |   |   |   |   |   |
| Lanes:                           | 0           | 0 | 1 | 0  | 0           | 0 | 0 | 0 | 0          | 0   | 0 | 1  | 0          | 0  | 1 | 0 | 0 | 0 | 0 | 0 |
| Initial Vol:                     | 57          |   | 0 | 54 | 0           | 0 | 0 | 0 | 0          | 134 |   | 93 | 50         | 72 |   | 0 |   |   |   |   |
| Major Street Volume:             |             |   |   |    | 349         |   |   |   |            |     |   |    |            |    |   |   |   |   |   |   |
| Minor Approach Volume:           |             |   |   |    | 111         |   |   |   |            |     |   |    |            |    |   |   |   |   |   |   |
| Minor Approach Volume Threshold: |             |   |   |    | 500         |   |   |   |            |     |   |    |            |    |   |   |   |   |   |   |

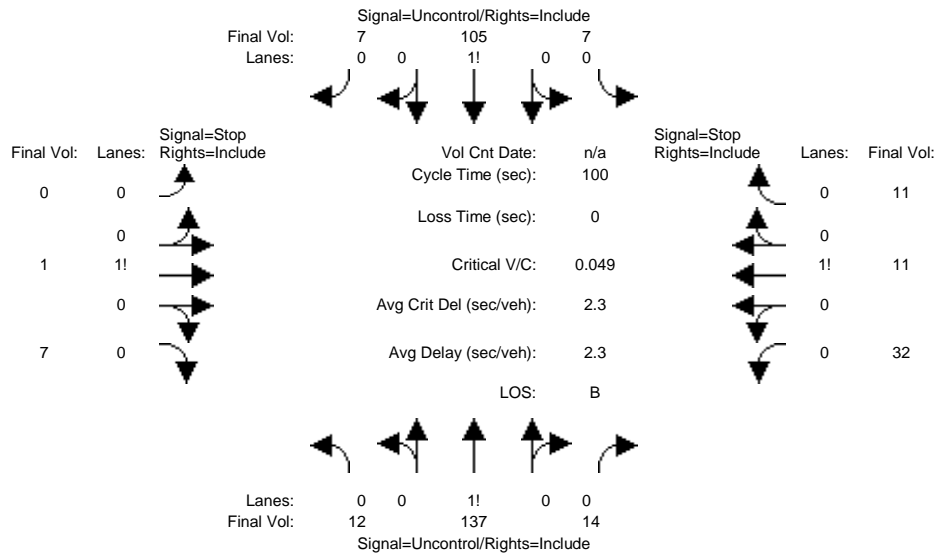
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 11 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table for Critical Gap Module with 12 columns and 2 rows showing Critical Gap and FollowUpTim values.

Table for Capacity Module with 12 columns and 4 rows showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table for Level Of Service Module with 12 columns and 10 rows showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 0 1 0  | 0 0 1! 0 0 |
| Initial Vol: | 12 137 14    | 7 105 7      | 0 1 7      | 32 11 11   |
| ApproachDel: | xxxxxx       | xxxxxx       | 9.1        | 10.7       |

Approach[eastbound][lanes=1][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.0]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=8]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=344]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=344]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 0 1 0  | 0 0 1! 0 0 |
| Initial Vol: | 12 137 14    | 7 105 7      | 0 1 7      | 32 11 11   |

Major Street Volume: 282  
 Minor Approach Volume: 54  
 Minor Approach Volume Threshold: 557

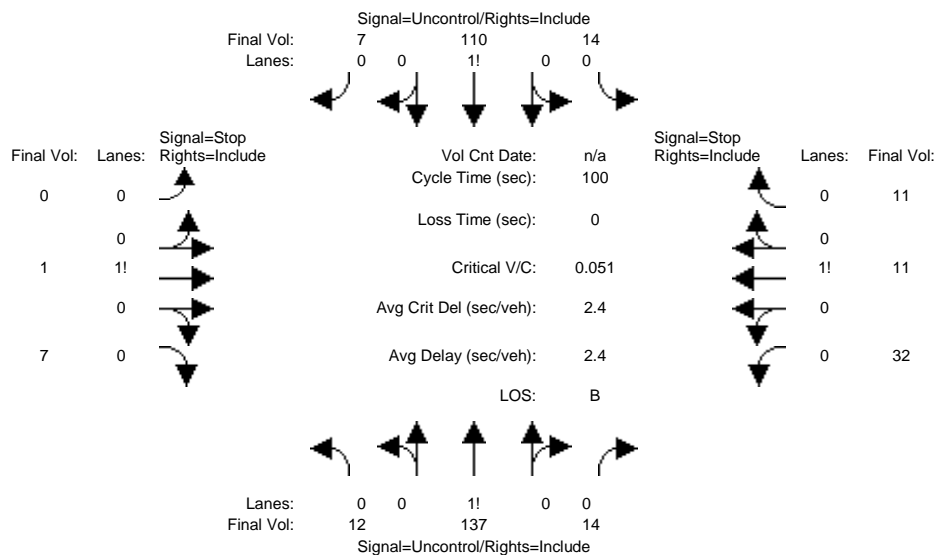
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P MD

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing different movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table for Critical Gap Module with 12 columns and 2 rows showing Critical Gap and FollowUpTim values.

Table for Capacity Module with 12 columns and 4 rows showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table for Level Of Service Module with 12 columns and 10 rows showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 0 1 0  | 0 0 1! 0 0 |
| Initial Vol: | 12 137 14    | 14 110 7     | 0 1 7      | 32 11 11   |
| ApproachDel: | xxxxxx       | xxxxxx       | 9.1        | 10.9       |

Approach[eastbound][lanes=1][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.0]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=8]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=356]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=356]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 0 1 0  | 0 0 1! 0 0 |
| Initial Vol: | 12 137 14    | 14 110 7     | 0 1 7      | 32 11 11   |

Major Street Volume: 294  
 Minor Approach Volume: 54  
 Minor Approach Volume Threshold: 546

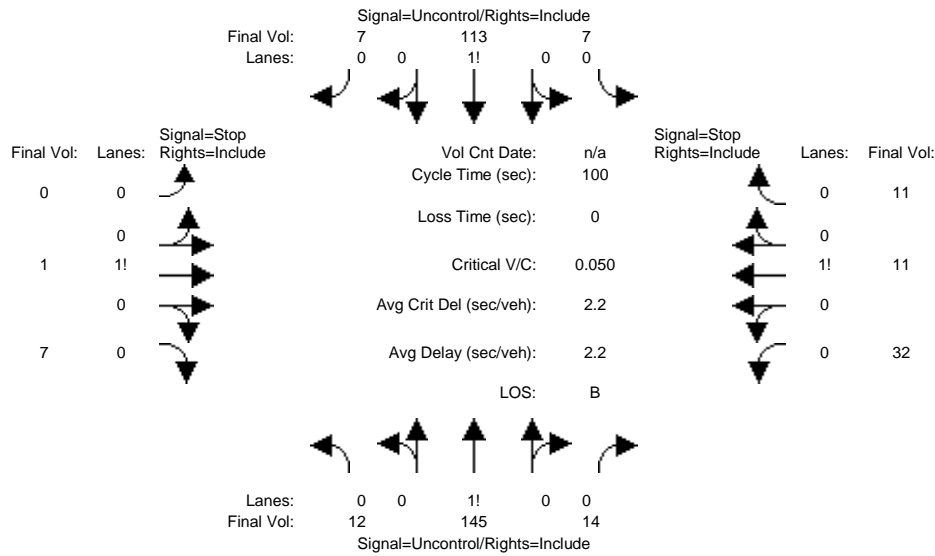
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd MD

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 0 1 0  | 0 0 1! 0 0 |
| Initial Vol: | 12 145 14    | 7 113 7      | 0 1 7      | 32 11 11   |
| ApproachDel: | xxxxxx       | xxxxxx       | 9.1        | 10.9       |

Approach[eastbound][lanes=1][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.0]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=8]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=360]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=360]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #11 Borregas Ave & Duane Ave

\*\*\*\*\*

Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 0 1 0  | 0 0 1! 0 0 |
| Initial Vol: | 12 145 14    | 7 113 7      | 0 1 7      | 32 11 11   |

Major Street Volume: 298  
 Minor Approach Volume: 54  
 Minor Approach Volume Threshold: 542

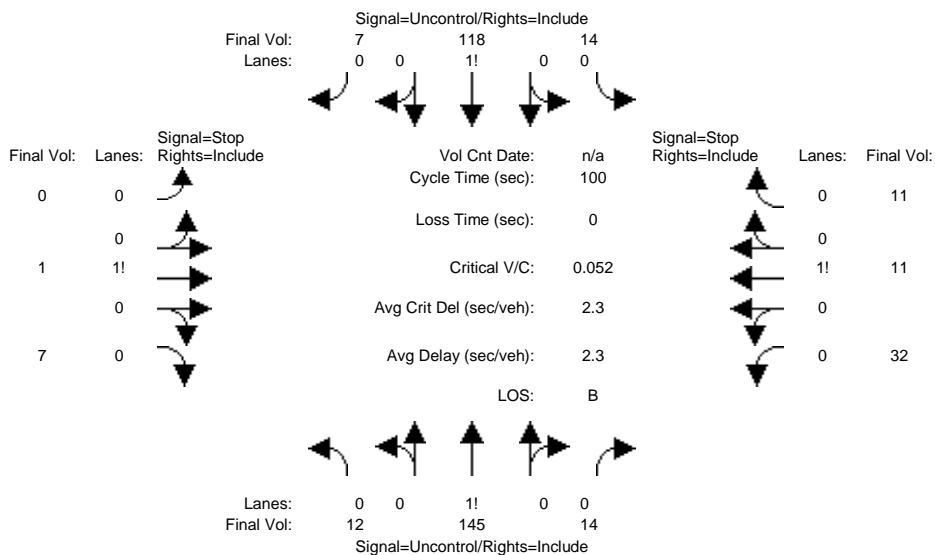
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Bkgd+P MD

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

|              |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:    | 12   | 145  | 14   | 7    | 113  | 7    | 0    | 1    | 7    | 32   | 11   | 11   |
| Growth Adj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 12   | 145  | 14   | 7    | 113  | 7    | 0    | 1    | 7    | 32   | 11   | 11   |
| Added Vol:   | 0    | 0    | 0    | 7    | 5    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol: | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut: | 12   | 145  | 14   | 14   | 118  | 7    | 0    | 1    | 7    | 32   | 11   | 11   |
| User Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:  | 12   | 145  | 14   | 14   | 118  | 7    | 0    | 1    | 7    | 32   | 11   | 11   |
| Reduct Vol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume: | 12   | 145  | 14   | 14   | 118  | 7    | 0    | 1    | 7    | 32   | 11   | 11   |

Critical Gap Module:

|              |     |      |        |     |      |        |        |     |     |     |     |     |
|--------------|-----|------|--------|-----|------|--------|--------|-----|-----|-----|-----|-----|
| Critical Gp: | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx | xxxxxx | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| FollowUpTim: | 2.2 | xxxx | xxxxxx | 2.2 | xxxx | xxxxxx | xxxxxx | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |

Capacity Module:

|              |      |      |        |      |      |        |      |      |      |      |      |      |
|--------------|------|------|--------|------|------|--------|------|------|------|------|------|------|
| Cnflct Vol:  | 125  | xxxx | xxxxxx | 159  | xxxx | xxxxxx | xxxx | 333  | 122  | 330  | 329  | 152  |
| Potent Cap.: | 1474 | xxxx | xxxxxx | 1433 | xxxx | xxxxxx | xxxx | 591  | 935  | 628  | 593  | 900  |
| Move Cap.:   | 1474 | xxxx | xxxxxx | 1433 | xxxx | xxxxxx | xxxx | 580  | 935  | 614  | 583  | 900  |
| Volume/Cap:  | 0.01 | xxxx | xxxx   | 0.01 | xxxx | xxxx   | xxxx | 0.00 | 0.01 | 0.05 | 0.02 | 0.01 |

Level Of Service Module:

|              |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:   | 0.0           | xxxx          | xxxxxx        | 0.0           | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        |
| Control Del: | 7.5           | xxxx          | xxxxxx        | 7.5           | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        |
| LOS by Move: | A             | *             | *             | A             | *             | *             | *             | *             | *             | *             | *             | *             |
| Movement:    | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.: | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | 869           | xxxx          | 649           | xxxxxx        |
| SharedQueue: | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | 0.0           | xxxxxx        | 0.3           | xxxxxx        |
| Shrd ConDel: | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | 9.2           | xxxxxx        | 11.1          | xxxxxx        |
| Shared LOS:  | *             | *             | *             | *             | *             | *             | *             | *             | A             | *             | B             | *             |
| ApproachDel: | xxxxxxx       |               |               | xxxxxxx       |               |               |               | 9.2           |               |               | 11.1          |               |
| ApproachLOS: | *             |               |               | *             |               |               |               | A             |               |               | B             |               |

Note: Queue reported is the number of cars per lane.  
 Peak Hour Delay Signal Warrant Report  
 \*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 0 1 0  | 0 0 1! 0 0 |
| Initial Vol: | 12 145 14    | 14 118 7     | 0 1 7      | 32 11 11   |
| ApproachDel: | xxxxxx       | xxxxxx       | 9.2        | 11.1       |

Approach[eastbound][lanes=1][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.0]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=8]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=372]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=372]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 0 1 0  | 0 0 1! 0 0 |
| Initial Vol: | 12 145 14    | 14 118 7     | 0 1 7      | 32 11 11   |

Major Street Volume: 310  
 Minor Approach Volume: 54  
 Minor Approach Volume Threshold: 532

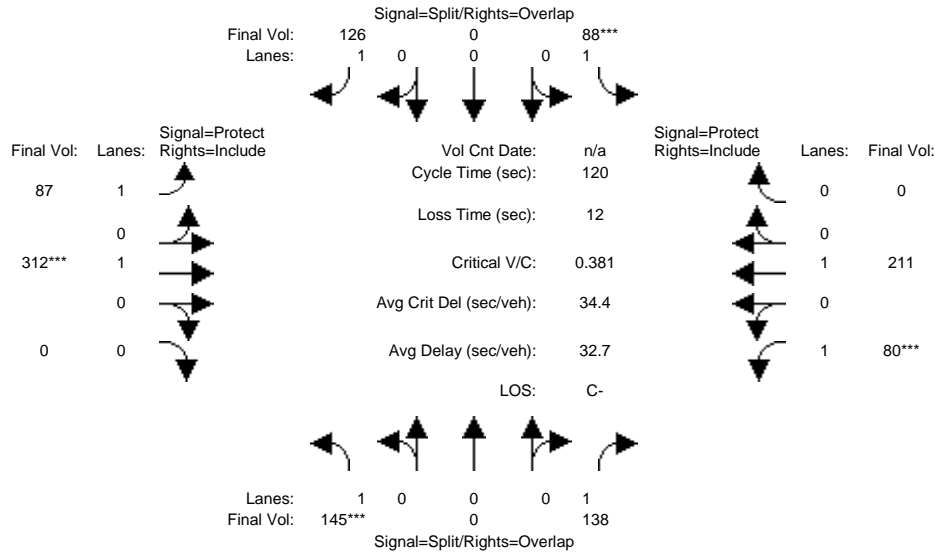
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing MD

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 145  | 0    | 138  | 88   | 0    | 126  | 87   | 312  | 0    | 80   | 211  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 145  | 0    | 138  | 88   | 0    | 126  | 87   | 312  | 0    | 80   | 211  | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 145  | 0    | 138  | 88   | 0    | 126  | 87   | 312  | 0    | 80   | 211  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 145  | 0    | 138  | 88   | 0    | 126  | 87   | 312  | 0    | 80   | 211  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 145  | 0    | 138  | 88   | 0    | 126  | 87   | 312  | 0    | 80   | 211  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 145  | 0    | 138  | 88   | 0    | 126  | 87   | 312  | 0    | 80   | 211  | 0    |

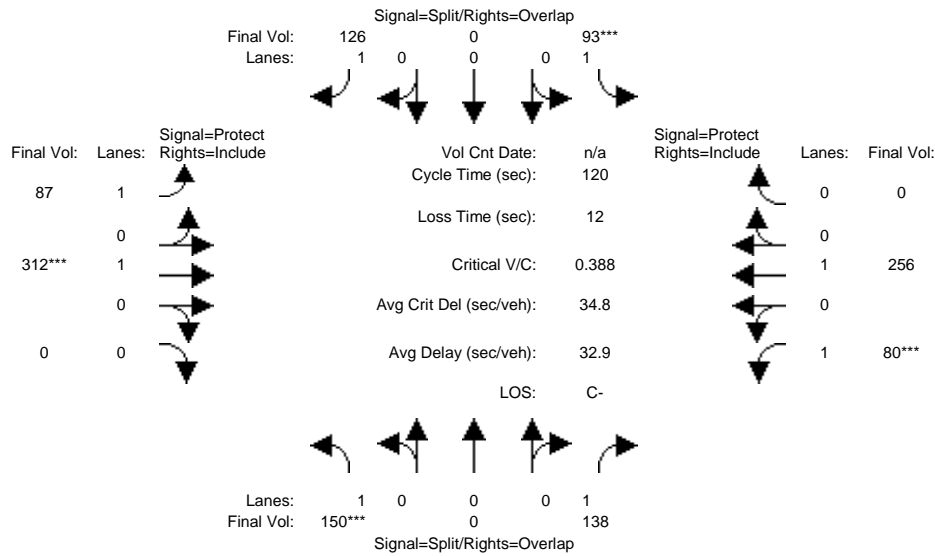
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.:             | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.08 | 0.00 | 0.08 | 0.05 | 0.00 | 0.07 | 0.05 | 0.16 | 0.00 | 0.05 | 0.11 | 0.00 |
| Crit Moves:               | ***  |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 26.1 | 0.0  | 40.5 | 15.8 | 0.0  | 38.6 | 22.8 | 51.7 | 0.0  | 14.4 | 43.3 | 0.0  |
| Volume/Cap:               | 0.38 | 0.00 | 0.23 | 0.38 | 0.00 | 0.22 | 0.26 | 0.38 | 0.00 | 0.38 | 0.31 | 0.00 |
| Uniform Del:              | 40.1 | 0.0  | 28.6 | 47.6 | 0.0  | 29.8 | 41.5 | 23.3 | 0.0  | 48.7 | 27.6 | 0.0  |
| IncrcmntDel:              | 0.6  | 0.0  | 0.2  | 1.1  | 0.0  | 0.2  | 0.4  | 0.3  | 0.0  | 1.2  | 0.3  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:                | 40.7 | 0.0  | 28.8 | 48.7 | 0.0  | 30.0 | 41.9 | 23.6 | 0.0  | 49.9 | 27.8 | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 40.7 | 0.0  | 28.8 | 48.7 | 0.0  | 30.0 | 41.9 | 23.6 | 0.0  | 49.9 | 27.8 | 0.0  |
| LOS by Move:              | D    | A    | C    | D    | A    | C    | D    | C    | A    | D    | C    | A    |
| HCM2kAvgQ:                | 5    | 0    | 4    | 4    | 0    | 4    | 3    | 8    | 0    | 3    | 5    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

Volume Module:

|               |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:     | 145  | 0    | 138  | 88   | 0    | 126  | 87   | 312  | 0    | 80   | 211  | 0    |
| Growth Adj:   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:  | 145  | 0    | 138  | 88   | 0    | 126  | 87   | 312  | 0    | 80   | 211  | 0    |
| Added Vol:    | 5    | 0    | 0    | 5    | 0    | 0    | 0    | 0    | 0    | 0    | 45   | 0    |
| PasserByVol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:  | 150  | 0    | 138  | 93   | 0    | 126  | 87   | 312  | 0    | 80   | 256  | 0    |
| User Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:   | 150  | 0    | 138  | 93   | 0    | 126  | 87   | 312  | 0    | 80   | 256  | 0    |
| Reduct Vol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:  | 150  | 0    | 138  | 93   | 0    | 126  | 87   | 312  | 0    | 80   | 256  | 0    |
| PCE Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 150  | 0    | 138  | 93   | 0    | 126  | 87   | 312  | 0    | 80   | 256  | 0    |

Saturation Flow Module:

|             |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:   | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:      | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.: | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

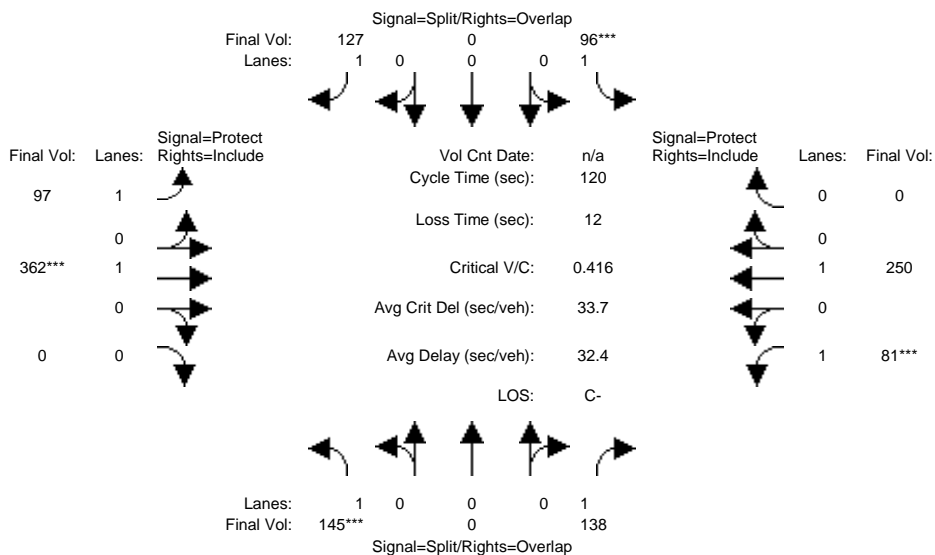
Capacity Analysis Module:

|               |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:      | 0.09 | 0.00 | 0.08 | 0.05 | 0.00 | 0.07 | 0.05 | 0.16 | 0.00 | 0.05 | 0.13 | 0.00 |
| Crit Moves:   | ***  |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:   | 26.5 | 0.0  | 40.7 | 16.5 | 0.0  | 36.1 | 19.6 | 50.8 | 0.0  | 14.2 | 45.4 | 0.0  |
| Volume/Cap:   | 0.39 | 0.00 | 0.23 | 0.39 | 0.00 | 0.24 | 0.30 | 0.39 | 0.00 | 0.39 | 0.36 | 0.00 |
| Uniform Del:  | 39.8 | 0.0  | 28.4 | 47.2 | 0.0  | 31.6 | 44.2 | 23.8 | 0.0  | 48.9 | 26.8 | 0.0  |
| IncrcmntDel:  | 0.6  | 0.0  | 0.2  | 1.0  | 0.0  | 0.2  | 0.6  | 0.3  | 0.0  | 1.2  | 0.3  | 0.0  |
| InitQueueDel: | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:    | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:    | 40.5 | 0.0  | 28.6 | 48.2 | 0.0  | 31.8 | 44.8 | 24.2 | 0.0  | 50.1 | 27.1 | 0.0  |
| User DelAdj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:   | 40.5 | 0.0  | 28.6 | 48.2 | 0.0  | 31.8 | 44.8 | 24.2 | 0.0  | 50.1 | 27.1 | 0.0  |
| LOS by Move:  | D    | A    | C    | D    | A    | C    | D    | C    | A    | D    | C    | A    |
| HCM2kAvgQ:    | 5    | 0    | 4    | 4    | 0    | 4    | 3    | 8    | 0    | 3    | 7    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 145  | 0    | 138  | 96   | 0    | 127  | 97   | 362  | 0    | 81   | 250  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 145  | 0    | 138  | 96   | 0    | 127  | 97   | 362  | 0    | 81   | 250  | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 145  | 0    | 138  | 96   | 0    | 127  | 97   | 362  | 0    | 81   | 250  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 145  | 0    | 138  | 96   | 0    | 127  | 97   | 362  | 0    | 81   | 250  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 145  | 0    | 138  | 96   | 0    | 127  | 97   | 362  | 0    | 81   | 250  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 145  | 0    | 138  | 96   | 0    | 127  | 97   | 362  | 0    | 81   | 250  | 0    |

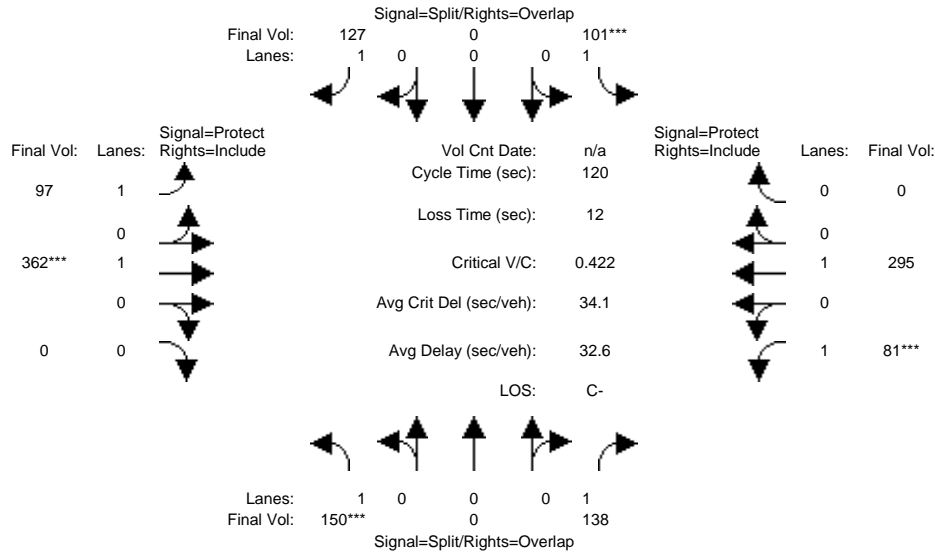
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.:             | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.08 | 0.00 | 0.08 | 0.05 | 0.00 | 0.07 | 0.06 | 0.19 | 0.00 | 0.05 | 0.13 | 0.00 |
| Crit Moves:               | ***  |      |      | ***  |      |      | ***  |      |      | ***  |      |      |
| Green Time:               | 23.9 | 0.0  | 37.2 | 15.8 | 0.0  | 36.8 | 21.0 | 54.9 | 0.0  | 13.3 | 47.3 | 0.0  |
| Volume/Cap:               | 0.42 | 0.00 | 0.25 | 0.42 | 0.00 | 0.24 | 0.32 | 0.42 | 0.00 | 0.42 | 0.33 | 0.00 |
| Uniform Del:              | 42.0 | 0.0  | 31.0 | 47.8 | 0.0  | 31.1 | 43.3 | 21.8 | 0.0  | 49.7 | 25.3 | 0.0  |
| IncrcmntDel:              | 0.8  | 0.0  | 0.2  | 1.2  | 0.0  | 0.2  | 0.6  | 0.3  | 0.0  | 1.4  | 0.3  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:                | 42.8 | 0.0  | 31.2 | 49.1 | 0.0  | 31.3 | 43.9 | 22.1 | 0.0  | 51.1 | 25.6 | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 42.8 | 0.0  | 31.2 | 49.1 | 0.0  | 31.3 | 43.9 | 22.1 | 0.0  | 51.1 | 25.6 | 0.0  |
| LOS by Move:              | D    | A    | C    | D    | A    | C    | D    | C+   | A    | D-   | C    | A    |
| HCM2kAvgQ:                | 5    | 0    | 4    | 4    | 0    | 4    | 4    | 9    | 0    | 3    | 6    | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P MD

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

Volume Module:

|               |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:     | 145  | 0    | 138  | 96   | 0    | 127  | 97   | 362  | 0    | 81   | 250  | 0    |
| Growth Adj:   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:  | 145  | 0    | 138  | 96   | 0    | 127  | 97   | 362  | 0    | 81   | 250  | 0    |
| Added Vol:    | 5    | 0    | 0    | 5    | 0    | 0    | 0    | 0    | 0    | 0    | 45   | 0    |
| PasserByVol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:  | 150  | 0    | 138  | 101  | 0    | 127  | 97   | 362  | 0    | 81   | 295  | 0    |
| User Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:   | 150  | 0    | 138  | 101  | 0    | 127  | 97   | 362  | 0    | 81   | 295  | 0    |
| Reduct Vol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:  | 150  | 0    | 138  | 101  | 0    | 127  | 97   | 362  | 0    | 81   | 295  | 0    |
| PCE Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 150  | 0    | 138  | 101  | 0    | 127  | 97   | 362  | 0    | 81   | 295  | 0    |

Saturation Flow Module:

|             |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:   | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:      | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.: | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

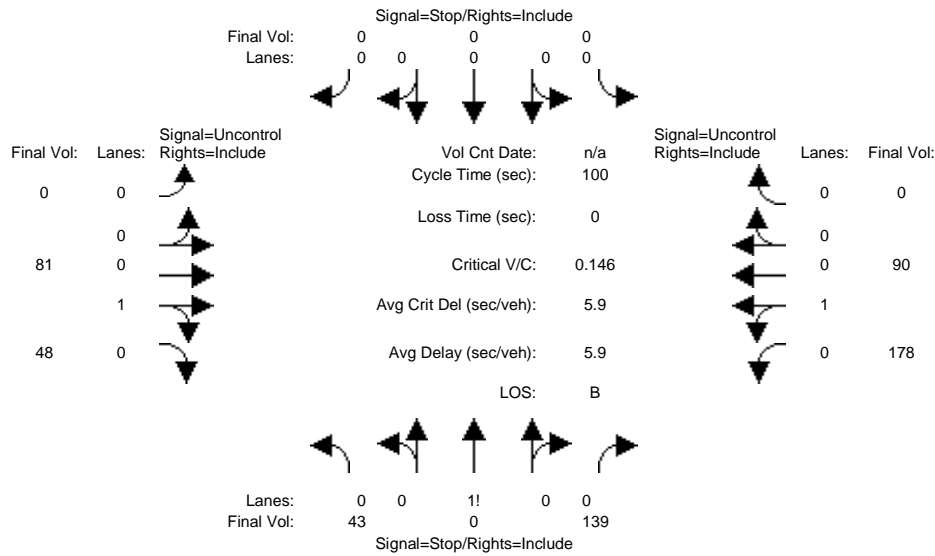
Capacity Analysis Module:

|               |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:      | 0.09 | 0.00 | 0.08 | 0.06 | 0.00 | 0.07 | 0.06 | 0.19 | 0.00 | 0.05 | 0.16 | 0.00 |
| Crit Moves:   | ***  |      |      | ***  |      |      | ***  |      |      | ***  |      |      |
| Green Time:   | 24.3 | 0.0  | 37.5 | 16.4 | 0.0  | 34.8 | 18.4 | 54.1 | 0.0  | 13.1 | 48.9 | 0.0  |
| Volume/Cap:   | 0.42 | 0.00 | 0.25 | 0.42 | 0.00 | 0.25 | 0.36 | 0.42 | 0.00 | 0.42 | 0.38 | 0.00 |
| Uniform Del:  | 41.7 | 0.0  | 30.8 | 47.5 | 0.0  | 32.6 | 45.6 | 22.3 | 0.0  | 49.9 | 24.9 | 0.0  |
| IncrcmntDel:  | 0.8  | 0.0  | 0.2  | 1.2  | 0.0  | 0.3  | 0.8  | 0.3  | 0.0  | 1.5  | 0.3  | 0.0  |
| InitQueueDel: | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:    | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:    | 42.5 | 0.0  | 31.0 | 48.7 | 0.0  | 32.9 | 46.4 | 22.7 | 0.0  | 51.4 | 25.3 | 0.0  |
| User DelAdj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:   | 42.5 | 0.0  | 31.0 | 48.7 | 0.0  | 32.9 | 46.4 | 22.7 | 0.0  | 51.4 | 25.3 | 0.0  |
| LOS by Move:  | D    | A    | C    | D    | A    | C-   | D    | C+   | A    | D-   | C    | A    |
| HCM2kAvgQ:    | 5    | 0    | 4    | 4    | 0    | 4    | 4    | 9    | 0    | 3    | 8    | 0    |

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

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for different movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing critical gap modules. Rows include Critical Gap and FollowUpTime for various movements.

Table with 13 columns representing capacity modules. Rows include Conflict Vol, Potent Cap., Move Cap., and Volume/Cap for various movements.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for various movements.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 43 0 139    | 0 0 0 0     | 0 81 48      | 178 90 0     |
| ApproachDel: | 11.3        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][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=182]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=579]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 43 0 139    | 0 0 0 0     | 0 81 48      | 178 90 0     |

```

Major Street Volume:          397
Minor Approach Volume:       182
Minor Approach Volume Threshold: 466
    
```

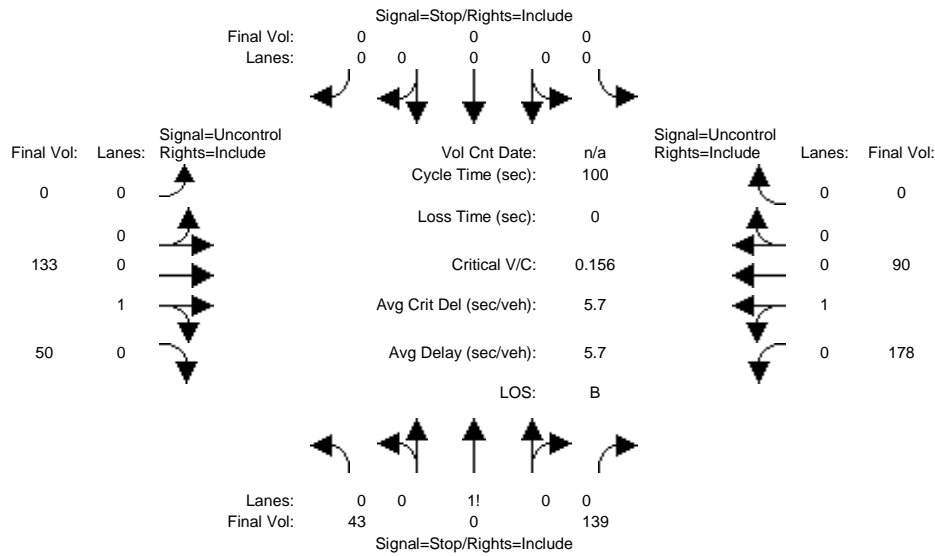
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Existing+P MD

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

|              |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:    | 43   | 0    | 139  | 0    | 0    | 0    | 0    | 81   | 48   | 178  | 90   | 0    |
| Growth Adj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 43   | 0    | 139  | 0    | 0    | 0    | 0    | 81   | 48   | 178  | 90   | 0    |
| Added Vol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 52   | 2    | 0    | 0    | 0    |
| PasserByVol: | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut: | 43   | 0    | 139  | 0    | 0    | 0    | 0    | 133  | 50   | 178  | 90   | 0    |
| User Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:  | 43   | 0    | 139  | 0    | 0    | 0    | 0    | 133  | 50   | 178  | 90   | 0    |
| Reduct Vol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume: | 43   | 0    | 139  | 0    | 0    | 0    | 0    | 133  | 50   | 178  | 90   | 0    |

Critical Gap Module:

|              |     |     |     |       |      |       |       |      |      |       |     |      |       |
|--------------|-----|-----|-----|-------|------|-------|-------|------|------|-------|-----|------|-------|
| Critical Gp: | 6.4 | 6.5 | 6.2 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx |

Capacity Module:

|              |      |      |      |      |      |       |      |      |       |      |      |       |
|--------------|------|------|------|------|------|-------|------|------|-------|------|------|-------|
| Cnflct Vol:  | 604  | 604  | 158  | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 183  | xxxx | xxxxx |
| Potent Cap.: | 465  | 415  | 893  | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1404 | xxxx | xxxxx |
| Move Cap.:   | 415  | 357  | 893  | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1404 | xxxx | xxxxx |
| Volume/Cap:  | 0.10 | 0.00 | 0.16 | xxxx | xxxx | xxxx  | xxxx | xxxx | xxxx  | 0.13 | xxxx | xxxx  |

Level of Service Module:

|              |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:   | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | 0.4           | xxxx          | xxxxx         |
| Control Del: | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 7.9           | xxxx          | xxxxx         |
| LOS by Move: | *             | *             | *             | *             | *             | *             | *             | *             | *             | A             | *             | *             |
| Movement:    | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.: | xxxx          | 702           | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         | xxxx          | xxxx          | xxxxx         |
| SharedQueue: | xxxxx         | 1.0           | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 0.4           | xxxx          | xxxxx         |
| Shrd ConDel: | xxxxx         | 11.9          | xxxxx         | xxxxx         | xxxx          | xxxxx         | xxxxx         | xxxx          | xxxxx         | 7.9           | xxxx          | xxxxx         |
| Shared LOS:  | *             | B             | *             | *             | *             | *             | *             | *             | *             | A             | *             | *             |
| ApproachDel: | 11.9          |               |               | xxxxxxx       |               |               | xxxxxxx       |               | xxxxxxx       |               | xxxxxxx       |               |
| ApproachLOS: |               | B             |               |               | *             |               |               | *             |               |               | *             |               |

Note: Queue reported is the number of cars per lane.  
 Peak Hour Delay Signal Warrant Report  
 \*\*\*\*\*  
 Intersection #13 Morse Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 43 0 139    | 0 0 0 0     | 0 133 50     | 178 90 0     |
| ApproachDel: | 11.9        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][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=182]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=633]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 43 0 139    | 0 0 0 0     | 0 133 50     | 178 90 0     |

```

Major Street Volume:      451
Minor Approach Volume:    182
Minor Approach Volume Threshold: 432
    
```

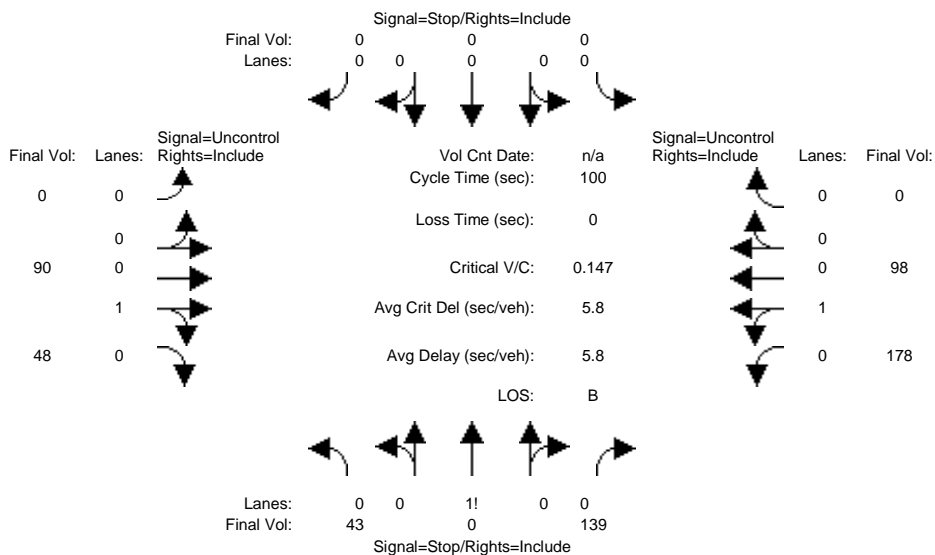
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Bkgd MD

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

| Volume Module: | Morse Ave North Bound |      |      | Morse Ave South Bound |      |      | Ahwanee Ave East Bound |      |      | Ahwanee Ave West Bound |      |      |
|----------------|-----------------------|------|------|-----------------------|------|------|------------------------|------|------|------------------------|------|------|
| Base Vol:      | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 90   | 48   | 178                    | 98   | 0    |
| Growth Adj:    | 1.00                  | 1.00 | 1.00 | 1.00                  | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 |
| Initial Bse:   | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 90   | 48   | 178                    | 98   | 0    |
| Added Vol:     | 0                     | 0    | 0    | 0                     | 0    | 0    | 0                      | 0    | 0    | 0                      | 0    | 0    |
| PasserByVol:   | 0                     | 0    | 0    | 0                     | 0    | 0    | 0                      | 0    | 0    | 0                      | 0    | 0    |
| Initial Fut:   | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 90   | 48   | 178                    | 98   | 0    |
| User Adj:      | 1.00                  | 1.00 | 1.00 | 1.00                  | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 |
| PHF Adj:       | 1.00                  | 1.00 | 1.00 | 1.00                  | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 |
| PHF Volume:    | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 90   | 48   | 178                    | 98   | 0    |
| Reduct Vol:    | 0                     | 0    | 0    | 0                     | 0    | 0    | 0                      | 0    | 0    | 0                      | 0    | 0    |
| FinalVolume:   | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 90   | 48   | 178                    | 98   | 0    |

| Critical Gap Module: | Morse Ave North Bound |     |     | Morse Ave South Bound |      |       | Ahwanee Ave East Bound |      |       | Ahwanee Ave West Bound |      |       |
|----------------------|-----------------------|-----|-----|-----------------------|------|-------|------------------------|------|-------|------------------------|------|-------|
| Critical Gp:         | 6.4                   | 6.5 | 6.2 | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 4.1                    | xxxx | xxxxx |
| FollowUpTim:         | 3.5                   | 4.0 | 3.3 | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 2.2                    | xxxx | xxxxx |

| Capacity Module: | Morse Ave North Bound |      |      | Morse Ave South Bound |      |       | Ahwanee Ave East Bound |      |       | Ahwanee Ave West Bound |      |       |
|------------------|-----------------------|------|------|-----------------------|------|-------|------------------------|------|-------|------------------------|------|-------|
| Cnflct Vol:      | 568                   | 568  | 114  | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | 138                    | xxxx | xxxxx |
| Potent Cap.:     | 488                   | 435  | 944  | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | 1458                   | xxxx | xxxxx |
| Move Cap.:       | 437                   | 376  | 944  | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | 1458                   | xxxx | xxxxx |
| Volume/Cap:      | 0.10                  | 0.00 | 0.15 | xxxx                  | xxxx | xxxx  | xxxx                   | xxxx | xxxx  | 0.12                   | xxxx | xxxx  |

| Level Of Service Module: | Morse Ave North Bound |      |       | Morse Ave South Bound |      |       | Ahwanee Ave East Bound |      |       | Ahwanee Ave West Bound |      |       |
|--------------------------|-----------------------|------|-------|-----------------------|------|-------|------------------------|------|-------|------------------------|------|-------|
| 2Way95thQ:               | xxxx                  | xxxx | xxxxx | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | 0.4                    | xxxx | xxxxx |
| Control Del:             | xxxxx                 | xxxx | xxxxx | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 7.8                    | xxxx | xxxxx |
| LOS by Move:             | *                     | *    | *     | *                     | *    | *     | *                      | *    | *     | A                      | *    | *     |
| Shared Cap.:             | xxxx                  | 741  | xxxxx | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | xxxx                   | xxxx | xxxxx |
| SharedQueue:             | xxxxx                 | 1.0  | xxxxx | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 0.4                    | xxxx | xxxxx |
| Shrd ConDel:             | xxxxx                 | 11.4 | xxxxx | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 7.8                    | xxxx | xxxxx |
| Shared LOS:              | *                     | B    | *     | *                     | *    | *     | *                      | *    | *     | A                      | *    | *     |
| ApproachDel:             | 11.4                  |      |       | xxxxxx                |      |       | xxxxxx                 |      |       | xxxxxx                 |      |       |
| ApproachLOS:             |                       | B    |       |                       | *    |       |                        | *    |       |                        | *    |       |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 43 0 139    | 0 0 0 0     | 0 90 48      | 178 98 0     |
| ApproachDel: | 11.4        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][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=182]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=596]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
Intersection #13 Morse Ave & Ahwanee Ave  
\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 43 0 139    | 0 0 0 0     | 0 90 48      | 178 98 0     |

```

Major Street Volume:          414
Minor Approach Volume:       182
Minor Approach Volume Threshold: 455
    
```

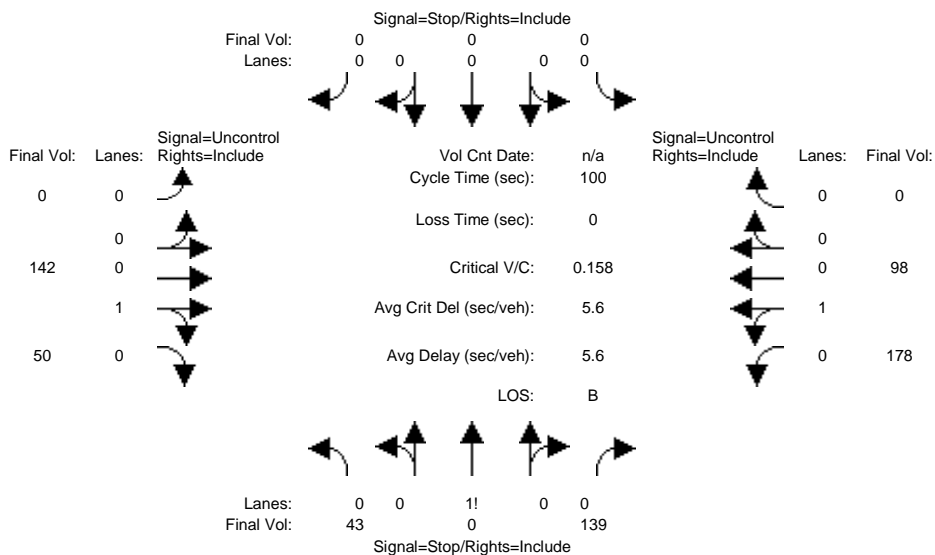
-----  
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Bkgd+P MD

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

| Volume Module: | Morse Ave North Bound |      |      | Morse Ave South Bound |      |      | Ahwanee Ave East Bound |      |      | Ahwanee Ave West Bound |      |      |
|----------------|-----------------------|------|------|-----------------------|------|------|------------------------|------|------|------------------------|------|------|
| Base Vol:      | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 90   | 48   | 178                    | 98   | 0    |
| Growth Adj:    | 1.00                  | 1.00 | 1.00 | 1.00                  | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 |
| Initial Bse:   | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 90   | 48   | 178                    | 98   | 0    |
| Added Vol:     | 0                     | 0    | 0    | 0                     | 0    | 0    | 0                      | 52   | 2    | 0                      | 0    | 0    |
| PasserByVol:   | 0                     | 0    | 0    | 0                     | 0    | 0    | 0                      | 0    | 0    | 0                      | 0    | 0    |
| Initial Fut:   | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 142  | 50   | 178                    | 98   | 0    |
| User Adj:      | 1.00                  | 1.00 | 1.00 | 1.00                  | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 |
| PHF Adj:       | 1.00                  | 1.00 | 1.00 | 1.00                  | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 | 1.00                   | 1.00 | 1.00 |
| PHF Volume:    | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 142  | 50   | 178                    | 98   | 0    |
| Reduct Vol:    | 0                     | 0    | 0    | 0                     | 0    | 0    | 0                      | 0    | 0    | 0                      | 0    | 0    |
| FinalVolume:   | 43                    | 0    | 139  | 0                     | 0    | 0    | 0                      | 142  | 50   | 178                    | 98   | 0    |

| Critical Gap Module: | Morse Ave North Bound |     |     | Morse Ave South Bound |      |       | Ahwanee Ave East Bound |      |       | Ahwanee Ave West Bound |      |       |
|----------------------|-----------------------|-----|-----|-----------------------|------|-------|------------------------|------|-------|------------------------|------|-------|
| Critical Gp:         | 6.4                   | 6.5 | 6.2 | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 4.1                    | xxxx | xxxxx |
| FollowUpTim:         | 3.5                   | 4.0 | 3.3 | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 2.2                    | xxxx | xxxxx |

| Capacity Module: | Morse Ave North Bound |      |      | Morse Ave South Bound |      |       | Ahwanee Ave East Bound |      |       | Ahwanee Ave West Bound |      |       |
|------------------|-----------------------|------|------|-----------------------|------|-------|------------------------|------|-------|------------------------|------|-------|
| Cnflct Vol:      | 621                   | 621  | 167  | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | 192                    | xxxx | xxxxx |
| Potent Cap.:     | 454                   | 406  | 882  | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | 1394                   | xxxx | xxxxx |
| Move Cap.:       | 405                   | 348  | 882  | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | 1394                   | xxxx | xxxxx |
| Volume/Cap:      | 0.11                  | 0.00 | 0.16 | xxxx                  | xxxx | xxxx  | xxxx                   | xxxx | xxxx  | 0.13                   | xxxx | xxxx  |

| Level of Service Module: | Morse Ave North Bound |      |       | Morse Ave South Bound |      |       | Ahwanee Ave East Bound |      |       | Ahwanee Ave West Bound |      |       |
|--------------------------|-----------------------|------|-------|-----------------------|------|-------|------------------------|------|-------|------------------------|------|-------|
| 2Way95thQ:               | xxxx                  | xxxx | xxxxx | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | 0.4                    | xxxx | xxxxx |
| Control Del:             | xxxxx                 | xxxx | xxxxx | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 8.0                    | xxxx | xxxxx |
| LOS by Move:             | *                     | *    | *     | *                     | *    | *     | *                      | *    | *     | A                      | *    | *     |
| Shared Cap.:             | xxxx                  | 690  | xxxx  | xxxx                  | xxxx | xxxxx | xxxx                   | xxxx | xxxxx | xxxx                   | xxxx | xxxxx |
| SharedQueue:             | xxxxx                 | 1.1  | xxxxx | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 0.4                    | xxxx | xxxxx |
| Shrd ConDel:             | xxxxx                 | 12.1 | xxxxx | xxxxx                 | xxxx | xxxxx | xxxxx                  | xxxx | xxxxx | 8.0                    | xxxx | xxxxx |
| Shared LOS:              | *                     | B    | *     | *                     | *    | *     | *                      | *    | *     | A                      | *    | *     |
| ApproachDel:             | 12.1                  |      |       | xxxxxx                |      |       | xxxxxx                 |      |       | xxxxxx                 |      |       |
| ApproachLOS:             |                       | B    |       |                       | *    |       |                        | *    |       |                        | *    |       |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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     | L            | T  | R     |
| Control:     | Stop Sign   |   |        | Stop Sign   |   |       | Uncontrolled |     |       | Uncontrolled |    |       |
| Lanes:       | 0           | 0 | 1! 0 0 | 0           | 0 | 0 0 0 | 0            | 0   | 0 1 0 | 0            | 1  | 0 0 0 |
| Initial Vol: | 43          | 0 | 139    | 0           | 0 | 0     | 0            | 142 | 50    | 178          | 98 | 0     |
| ApproachDel: | 12.1        |   |        | xxxxxxx     |   |       | xxxxxxx      |     |       | xxxxxxx      |    |       |

```

Approach[northbound][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=182]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=650]
    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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future 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     | L            | T  | R     |
| Control:     | Stop Sign   |   |        | Stop Sign   |   |       | Uncontrolled |     |       | Uncontrolled |    |       |
| Lanes:       | 0           | 0 | 1! 0 0 | 0           | 0 | 0 0 0 | 0            | 0   | 0 1 0 | 0            | 1  | 0 0 0 |
| Initial Vol: | 43          | 0 | 139    | 0           | 0 | 0     | 0            | 142 | 50    | 178          | 98 | 0     |

```

Major Street Volume:          468
Minor Approach Volume:       182
Minor Approach Volume Threshold: 422
    
```

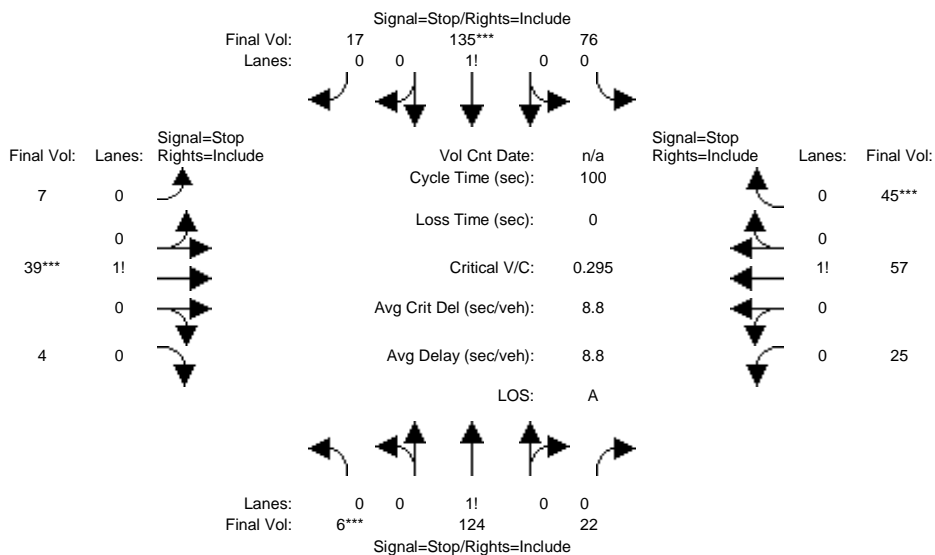
-----  
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing MD

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Approach:    | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Movement:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 6    | 124  | 22   | 76   | 135  | 17   | 7    | 39   | 4    | 25   | 57   | 45   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 6    | 124  | 22   | 76   | 135  | 17   | 7    | 39   | 4    | 25   | 57   | 45   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 6    | 124  | 22   | 76   | 135  | 17   | 7    | 39   | 4    | 25   | 57   | 45   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 6    | 124  | 22   | 76   | 135  | 17   | 7    | 39   | 4    | 25   | 57   | 45   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 6    | 124  | 22   | 76   | 135  | 17   | 7    | 39   | 4    | 25   | 57   | 45   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 6    | 124  | 22   | 76   | 135  | 17   | 7    | 39   | 4    | 25   | 57   | 45   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.04 | 0.82 | 0.14 | 0.33 | 0.60 | 0.07 | 0.14 | 0.78 | 0.08 | 0.20 | 0.45 | 0.35 |
| Final Sat.:             | 30   | 628  | 111  | 258  | 458  | 58   | 95   | 532  | 55   | 143  | 326  | 257  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.20 | 0.20 | 0.20 | 0.29 | 0.29 | 0.29 | 0.07 | 0.07 | 0.07 | 0.17 | 0.17 | 0.17 |
| Crit Moves:               | **** |      |      |      | **** |      |      | **** |      |      | **** |      |
| Delay/Veh:                | 8.5  | 8.5  | 8.5  | 9.3  | 9.3  | 9.3  | 8.2  | 8.2  | 8.2  | 8.5  | 8.5  | 8.5  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.5  | 8.5  | 8.5  | 9.3  | 9.3  | 9.3  | 8.2  | 8.2  | 8.2  | 8.5  | 8.5  | 8.5  |
| LOS by Move:              | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              |      | 8.5  |      |      | 9.3  |      |      | 8.2  |      |      | 8.5  |      |
| Delay Adj:                |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               |      | 8.5  |      |      | 9.3  |      |      | 8.2  |      |      | 8.5  |      |
| LOS by Appr:              |      | A    |      |      | A    |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.4  | 0.4  | 0.4  | 0.1  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #14 Morse Ave & Duane Ave  
 \*\*\*\*\*  
 Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |     |    |    | South Bound |    |     |    | East Bound |   |   |    | West Bound |   |   |    |    |    |    |   |
|----------------------------------|-------------|-----|----|----|-------------|----|-----|----|------------|---|---|----|------------|---|---|----|----|----|----|---|
| Movement:                        | L           | T   | R  |    | L           | T  | R   |    | L          | T | R |    | L          | T | R |    |    |    |    |   |
| Control:                         | Stop Sign   |     |    |    | Stop Sign   |    |     |    | Stop Sign  |   |   |    | Stop Sign  |   |   |    |    |    |    |   |
| Lanes:                           | 0           | 0   | 1! | 0  | 0           | 0  | 0   | 1! | 0          | 0 | 0 | 0  | 1!         | 0 | 0 | 0  | 0  | 1! | 0  | 0 |
| Initial Vol:                     | 6           | 124 |    | 22 |             | 76 | 135 |    | 17         |   | 7 | 39 |            | 4 |   | 25 | 57 |    | 45 |   |
| Major Street Volume:             |             |     |    |    | 380         |    |     |    |            |   |   |    |            |   |   |    |    |    |    |   |
| Minor Approach Volume:           |             |     |    |    | 127         |    |     |    |            |   |   |    |            |   |   |    |    |    |    |   |
| Minor Approach Volume Threshold: |             |     |    |    | 477         |    |     |    |            |   |   |    |            |   |   |    |    |    |    |   |

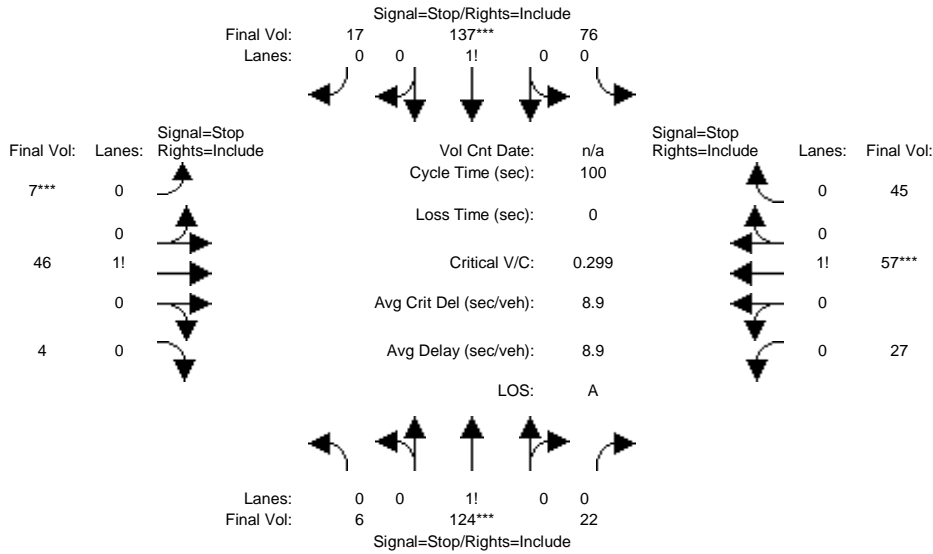
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Existing+P MD

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Approach:    | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Movement:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 6    | 124  | 22   | 76   | 135  | 17   | 7    | 39   | 4    | 25   | 57   | 45   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 6    | 124  | 22   | 76   | 135  | 17   | 7    | 39   | 4    | 25   | 57   | 45   |
| Added Vol:     | 0    | 0    | 0    | 0    | 2    | 0    | 0    | 7    | 0    | 2    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 6    | 124  | 22   | 76   | 137  | 17   | 7    | 46   | 4    | 27   | 57   | 45   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 6    | 124  | 22   | 76   | 137  | 17   | 7    | 46   | 4    | 27   | 57   | 45   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 6    | 124  | 22   | 76   | 137  | 17   | 7    | 46   | 4    | 27   | 57   | 45   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 6    | 124  | 22   | 76   | 137  | 17   | 7    | 46   | 4    | 27   | 57   | 45   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.04 | 0.82 | 0.14 | 0.33 | 0.60 | 0.07 | 0.12 | 0.81 | 0.07 | 0.21 | 0.44 | 0.35 |
| Final Sat.:             | 30   | 623  | 111  | 254  | 458  | 57   | 84   | 549  | 48   | 151  | 319  | 252  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.20 | 0.20 | 0.20 | 0.30 | 0.30 | 0.30 | 0.08 | 0.08 | 0.08 | 0.18 | 0.18 | 0.18 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Delay/Veh:                | 8.6  | 8.6  | 8.6  | 9.4  | 9.4  | 9.4  | 8.3  | 8.3  | 8.3  | 8.6  | 8.6  | 8.6  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.6  | 8.6  | 8.6  | 9.4  | 9.4  | 9.4  | 8.3  | 8.3  | 8.3  | 8.6  | 8.6  | 8.6  |
| LOS by Move:              | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              | 8.6  |      |      | 9.4  |      |      | 8.3  |      |      | 8.6  |      |      |
| Delay Adj:                | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      |
| ApprAdjDel:               | 8.6  |      |      | 9.4  |      |      | 8.3  |      |      | 8.6  |      |      |
| LOS by Appr:              | A    |      |      | A    |      |      | A    |      |      | A    |      |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.4  | 0.4  | 0.4  | 0.1  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #14 Morse Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:                         | Stop Sign   | Stop Sign   | Stop Sign  | Stop Sign  |
| Lanes:                           | 0 0 1! 0 0  | 0 0 1! 0 0  | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol:                     | 6 124 22    | 76 137 17   | 7 46 4     | 27 57 45   |
| Major Street Volume:             | 382         |             |            |            |
| Minor Approach Volume:           | 129         |             |            |            |
| Minor Approach Volume Threshold: | 476         |             |            |            |

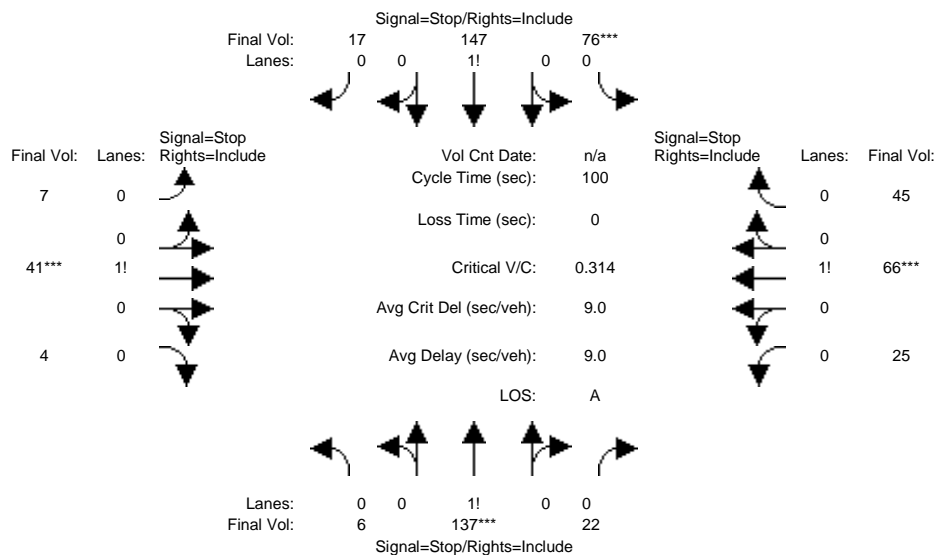
## SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Bkgd MD

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 6    | 137  | 22   | 76   | 147  | 17   | 7    | 41   | 4    | 25   | 66   | 45   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 6    | 137  | 22   | 76   | 147  | 17   | 7    | 41   | 4    | 25   | 66   | 45   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 6    | 137  | 22   | 76   | 147  | 17   | 7    | 41   | 4    | 25   | 66   | 45   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 6    | 137  | 22   | 76   | 147  | 17   | 7    | 41   | 4    | 25   | 66   | 45   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 6    | 137  | 22   | 76   | 147  | 17   | 7    | 41   | 4    | 25   | 66   | 45   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 6    | 137  | 22   | 76   | 147  | 17   | 7    | 41   | 4    | 25   | 66   | 45   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.04 | 0.83 | 0.13 | 0.32 | 0.61 | 0.07 | 0.13 | 0.79 | 0.08 | 0.18 | 0.49 | 0.33 |
| Final Sat.:             | 28   | 630  | 101  | 242  | 468  | 54   | 90   | 527  | 51   | 131  | 346  | 236  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.22 | 0.22 | 0.22 | 0.31 | 0.31 | 0.31 | 0.08 | 0.08 | 0.08 | 0.19 | 0.19 | 0.19 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Delay/Veh:                | 8.7  | 8.7  | 8.7  | 9.5  | 9.5  | 9.5  | 8.3  | 8.3  | 8.3  | 8.7  | 8.7  | 8.7  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.7  | 8.7  | 8.7  | 9.5  | 9.5  | 9.5  | 8.3  | 8.3  | 8.3  | 8.7  | 8.7  | 8.7  |
| LOS by Move:              | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              | 8.7  |      |      | 9.5  |      |      | 8.3  |      |      | 8.7  |      |      |
| Delay Adj:                | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      |
| ApprAdjDel:               | 8.7  |      |      | 9.5  |      |      | 8.3  |      |      | 8.7  |      |      |
| LOS by Appr:              | A    |      |      | A    |      |      | A    |      |      | A    |      |      |
| AllWayAvgQ:               | 0.3  | 0.3  | 0.3  | 0.4  | 0.4  | 0.4  | 0.1  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #14 Morse Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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 |    | L          | T | R |    |    |    |    |   |
| Control:                         | Stop Sign   |     |    |    | Stop Sign   |    |     |    | Stop Sign  |   |   |    | Stop Sign  |   |   |    |    |    |    |   |
| Lanes:                           | 0           | 0   | 1! | 0  | 0           | 0  | 0   | 1! | 0          | 0 | 0 | 0  | 1!         | 0 | 0 | 0  | 0  | 1! | 0  | 0 |
| Initial Vol:                     | 6           | 137 |    | 22 |             | 76 | 147 |    | 17         |   | 7 | 41 |            | 4 |   | 25 | 66 |    | 45 |   |
| Major Street Volume:             |             |     |    |    | 405         |    |     |    |            |   |   |    |            |   |   |    |    |    |    |   |
| Minor Approach Volume:           |             |     |    |    | 136         |    |     |    |            |   |   |    |            |   |   |    |    |    |    |   |
| Minor Approach Volume Threshold: |             |     |    |    | 460         |    |     |    |            |   |   |    |            |   |   |    |    |    |    |   |

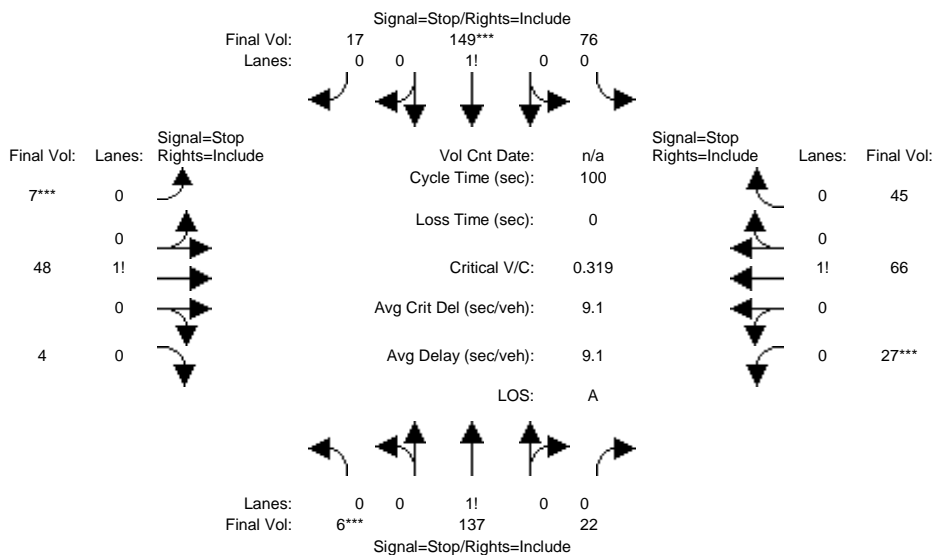
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Bkgd+P MD

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 6    | 137  | 22   | 76   | 147  | 17   | 7    | 41   | 4    | 25   | 66   | 45   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 6    | 137  | 22   | 76   | 147  | 17   | 7    | 41   | 4    | 25   | 66   | 45   |
| Added Vol:     | 0    | 0    | 0    | 0    | 2    | 0    | 0    | 7    | 0    | 2    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 6    | 137  | 22   | 76   | 149  | 17   | 7    | 48   | 4    | 27   | 66   | 45   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 6    | 137  | 22   | 76   | 149  | 17   | 7    | 48   | 4    | 27   | 66   | 45   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 6    | 137  | 22   | 76   | 149  | 17   | 7    | 48   | 4    | 27   | 66   | 45   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 6    | 137  | 22   | 76   | 149  | 17   | 7    | 48   | 4    | 27   | 66   | 45   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.04 | 0.83 | 0.13 | 0.31 | 0.62 | 0.07 | 0.12 | 0.81 | 0.07 | 0.19 | 0.48 | 0.33 |
| Final Sat.:             | 27   | 625  | 100  | 238  | 467  | 53   | 79   | 542  | 45   | 139  | 339  | 231  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.22 | 0.22 | 0.22 | 0.32 | 0.32 | 0.32 | 0.09 | 0.09 | 0.09 | 0.19 | 0.19 | 0.19 |
| Crit Moves:               | **** |      |      |      | **** |      | **** |      |      | **** |      |      |
| Delay/Veh:                | 8.8  | 8.8  | 8.8  | 9.6  | 9.6  | 9.6  | 8.4  | 8.4  | 8.4  | 8.8  | 8.8  | 8.8  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.8  | 8.8  | 8.8  | 9.6  | 9.6  | 9.6  | 8.4  | 8.4  | 8.4  | 8.8  | 8.8  | 8.8  |
| LOS by Move:              | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              |      | 8.8  |      |      | 9.6  |      |      | 8.4  |      |      | 8.8  |      |
| Delay Adj:                |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               |      | 8.8  |      |      | 9.6  |      |      | 8.4  |      |      | 8.8  |      |
| LOS by Appr:              |      | A    |      |      | A    |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.3  | 0.3  | 0.3  | 0.4  | 0.4  | 0.4  | 0.1  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #14 Morse Ave & Duane Ave

\*\*\*\*\*

Future 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  | L - T - R  |
| Control:                         | Stop Sign   | Stop Sign   | Stop Sign  | Stop Sign  |
| Lanes:                           | 0 0 1! 0 0  | 0 0 1! 0 0  | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol:                     | 6 137 22    | 76 149 17   | 7 48 4     | 27 66 45   |
| Major Street Volume:             | 407         |             |            |            |
| Minor Approach Volume:           | 138         |             |            |            |
| Minor Approach Volume Threshold: | 459         |             |            |            |

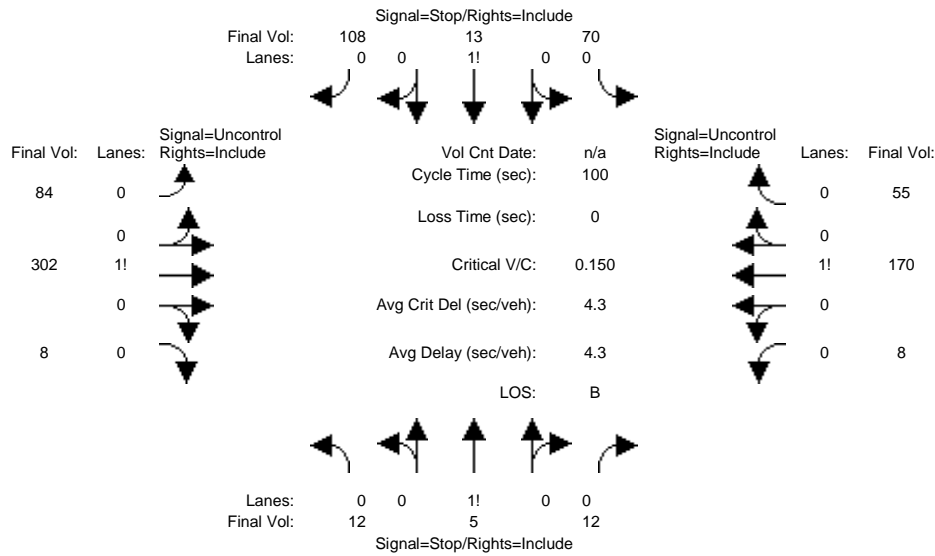
## SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing volume data for different movements and approaches. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing critical gap and follow-up time data for different movements and approaches. Rows include Critical Gap and FollowUpTim.

Table with 12 columns representing capacity module data for different movements and approaches. Rows include Cnflct Vol, Potent Cap., Move Cap., Total Cap, and Volume/Cap.

Table with 12 columns representing level of service module data for different movements and approaches. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #15 Morse Ave & Maude Ave
\*\*\*\*\*
Future 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    | 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: | 12 5 12     | 70 13 108   | 84 302 8     | 8 170 55     |
| ApproachDel: | 12.3        | 13.2        | 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=29]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=847]  
 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=0.7]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=191]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=847]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 5 12     | 70 13 108   | 84 302 8     | 8 170 55     |

Major Street Volume: 627  
 Minor Approach Volume: 191  
 Minor Approach Volume Threshold: 344

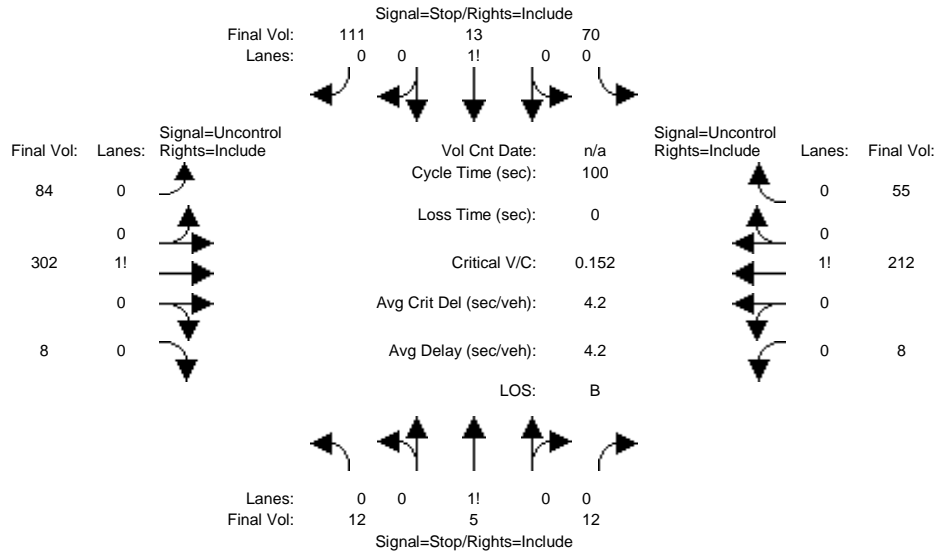
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level of Service Computation Report  
 2000 HCM Unsignalized (Future Volume Alternative)  
 Existing+P MD

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

|              |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:    | 12   | 5    | 12   | 70   | 13   | 108  | 84   | 302  | 8    | 8    | 170  | 55   |
| Growth Adj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 12   | 5    | 12   | 70   | 13   | 108  | 84   | 302  | 8    | 8    | 170  | 55   |
| Added Vol:   | 0    | 0    | 0    | 0    | 0    | 3    | 0    | 0    | 0    | 0    | 42   | 0    |
| PasserByVol: | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut: | 12   | 5    | 12   | 70   | 13   | 111  | 84   | 302  | 8    | 8    | 212  | 55   |
| User Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:  | 12   | 5    | 12   | 70   | 13   | 111  | 84   | 302  | 8    | 8    | 212  | 55   |
| Reduct Vol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume: | 12   | 5    | 12   | 70   | 13   | 111  | 84   | 302  | 8    | 8    | 212  | 55   |

Critical Gap Module:

|              |     |     |     |     |     |     |     |      |        |     |      |        |
|--------------|-----|-----|-----|-----|-----|-----|-----|------|--------|-----|------|--------|
| Critical Gp: | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxxx | 2.2 | xxxx | xxxxxx |

Capacity Module:

|              |      |      |        |      |      |        |      |      |        |      |      |        |
|--------------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|
| Cnflct Vol:  | 792  | 757  | 306    | 738  | 734  | 240    | 267  | xxxx | xxxxxx | 310  | xxxx | xxxxxx |
| Potent Cap.: | 310  | 339  | 739    | 336  | 350  | 804    | 1308 | xxxx | xxxxxx | 1262 | xxxx | xxxxxx |
| Move Cap.:   | 244  | 314  | 739    | 308  | 324  | 804    | 1308 | xxxx | xxxxxx | 1262 | xxxx | xxxxxx |
| Total Cap:   | 405  | 448  | xxxxxx | 459  | 461  | xxxxxx | xxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx |
| Volume/Cap:  | 0.03 | 0.01 | 0.02   | 0.15 | 0.03 | 0.14   | 0.06 | xxxx | xxxx   | 0.01 | xxxx | xxxx   |

Level of Service Module:

|              |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:   | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        | 0.2           | xxxx          | xxxxxx        | 0.0           | xxxx          | xxxxxx        |
| Control Del: | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | 7.9           | xxxx          | xxxxxx        | 7.9           | xxxx          | xxxxxx        |
| LOS by Move: | *             | *             | *             | *             | *             | *             | A             | *             | *             | A             | *             | *             |
| Movement:    | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.: | xxxx          | 509           | xxxxxx        | xxxx          | 609           | xxxxxx        | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        |
| SharedQueue: | xxxxxx        | 0.2           | xxxxxx        | xxxxxx        | 1.4           | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        |
| Shrd ConDel: | xxxxxx        | 12.5          | xxxxxx        | xxxxxx        | 13.7          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        |
| Shared LOS:  | *             | B             | *             | *             | B             | *             | *             | *             | *             | *             | *             | *             |
| ApproachDel: |               | 12.5          |               |               | 13.7          |               | xxxxxx        |               | xxxxxx        |               | xxxxxx        |               |
| ApproachLOS: |               | B             |               |               | B             |               | *             |               | *             |               | *             |               |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #15 Morse Ave & Maude Ave

\*\*\*\*\*

Future 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    | 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: | 12 5 12     | 70 13 111   | 84 302 8     | 8 212 55     |
| ApproachDel: | 12.5        | 13.7        | 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=29]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=892]  
 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=0.7]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=194]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=892]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 5 12     | 70 13 111   | 84 302 8     | 8 212 55     |

Major Street Volume: 669  
 Minor Approach Volume: 194  
 Minor Approach Volume Threshold: 327

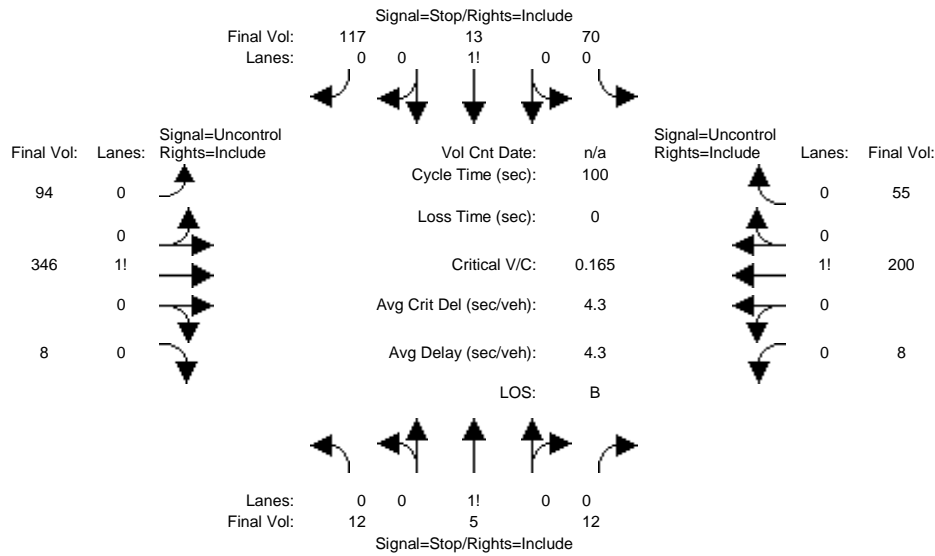
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM Unsignalized (Future Volume Alternative)  
 Bkgd MD

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 12   | 5    | 12   | 70   | 13   | 117  | 94   | 346  | 8    | 8    | 200  | 55   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 12   | 5    | 12   | 70   | 13   | 117  | 94   | 346  | 8    | 8    | 200  | 55   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 12   | 5    | 12   | 70   | 13   | 117  | 94   | 346  | 8    | 8    | 200  | 55   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 12   | 5    | 12   | 70   | 13   | 117  | 94   | 346  | 8    | 8    | 200  | 55   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume:   | 12   | 5    | 12   | 70   | 13   | 117  | 94   | 346  | 8    | 8    | 200  | 55   |

| Critical Gap Module: |     |     |     |     |     |     |     |      |        |     |      |        |
|----------------------|-----|-----|-----|-----|-----|-----|-----|------|--------|-----|------|--------|
| Critical Gp:         | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx |
| FollowUpTim:         | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxxx | 2.2 | xxxx | xxxxxx |

| Capacity Module: |      |      |        |      |      |        |      |      |        |      |      |        |
|------------------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|
| Cnflct Vol:      | 847  | 809  | 350    | 790  | 786  | 228    | 255  | xxxx | xxxxxx | 354  | xxxx | xxxxxx |
| Potent Cap.:     | 284  | 317  | 698    | 310  | 327  | 817    | 1322 | xxxx | xxxxxx | 1216 | xxxx | xxxxxx |
| Move Cap.:       | 221  | 291  | 698    | 282  | 300  | 817    | 1322 | xxxx | xxxxxx | 1216 | xxxx | xxxxxx |
| Total Cap:       | 382  | 423  | xxxxxx | 424  | 432  | xxxxxx | xxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx |
| Volume/Cap:      | 0.03 | 0.01 | 0.02   | 0.16 | 0.03 | 0.14   | 0.07 | xxxx | xxxx   | 0.01 | xxxx | xxxx   |

| Level Of Service Module: |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:               | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        | 0.2           | xxxx          | xxxxxx        | 0.0           | xxxx          | xxxxxx        |
| Control Del:             | xxxxx         | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | 7.9           | xxxx          | xxxxxx        | 8.0           | xxxx          | xxxxxx        |
| LOS by Move:             | *             | *             | *             | *             | *             | *             | A             | *             | *             | A             | *             | *             |
| Movement:                | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.:             | xxxx          | 480           | xxxxxx        | xxxx          | 591           | xxxxxx        | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        |
| SharedQueue:             | xxxxxx        | 0.2           | xxxxxx        | xxxxxx        | 1.5           | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        |
| Shrd ConDel:             | xxxxxx        | 13.0          | xxxxxx        | xxxxxx        | 14.2          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        |
| Shared LOS:              | *             | B             | *             | *             | B             | *             | *             | *             | *             | *             | *             | *             |
| ApproachDel:             | 13.0          |               |               | 14.2          |               |               | xxxxxx        |               |               | xxxxxx        |               |               |
| ApproachLOS:             | B             |               |               | B             |               |               | *             |               |               | *             |               | *             |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 5 12     | 70 13 117   | 94 346 8     | 8 200 55     |
| ApproachDel: | 13.0        | 14.2        | 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=29]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=940]  
 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=0.8]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=200]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=940]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 5 12     | 70 13 117   | 94 346 8     | 8 200 55     |

Major Street Volume: 711  
 Minor Approach Volume: 200  
 Minor Approach Volume Threshold: 310

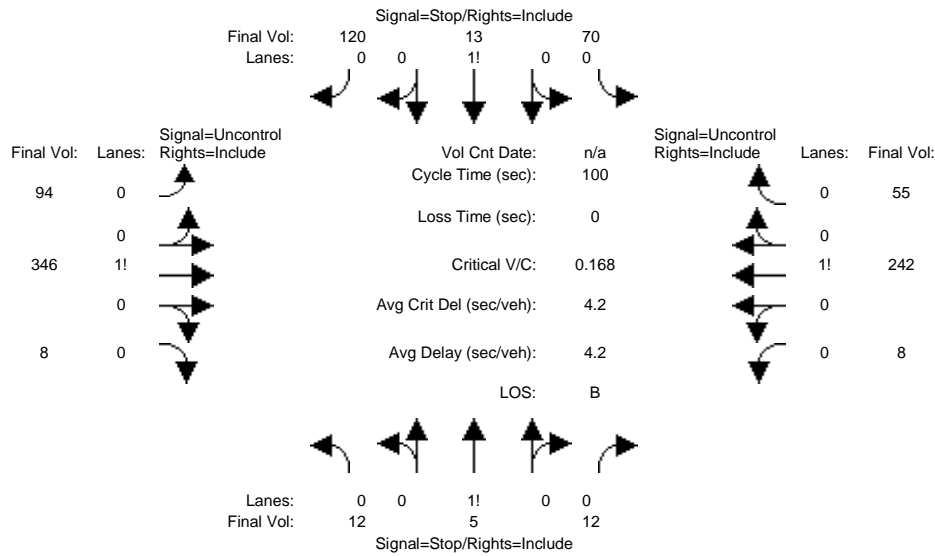
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P MD

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 12 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns and 2 rows for Critical Gap Module, showing Critical Gap and FollowUpTim values.

Table with 13 columns and 5 rows for Capacity Module, showing Cnflct Vol, Potent Cap., Move Cap., Total Cap, and Volume/Cap ratios.

Table with 13 columns and 10 rows for Level Of Service Module, showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #15 Morse Ave & Maude Ave
\*\*\*\*\*
Future 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    | 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: | 12 5 12     | 70 13 120   | 94 346 8     | 8 242 55     |
| ApproachDel: | 13.3        | 14.6        | 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=29]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=985]  
 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=0.8]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=203]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=985]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 5 12     | 70 13 120   | 94 346 8     | 8 242 55     |

Major Street Volume: 753  
 Minor Approach Volume: 203  
 Minor Approach Volume Threshold: 295

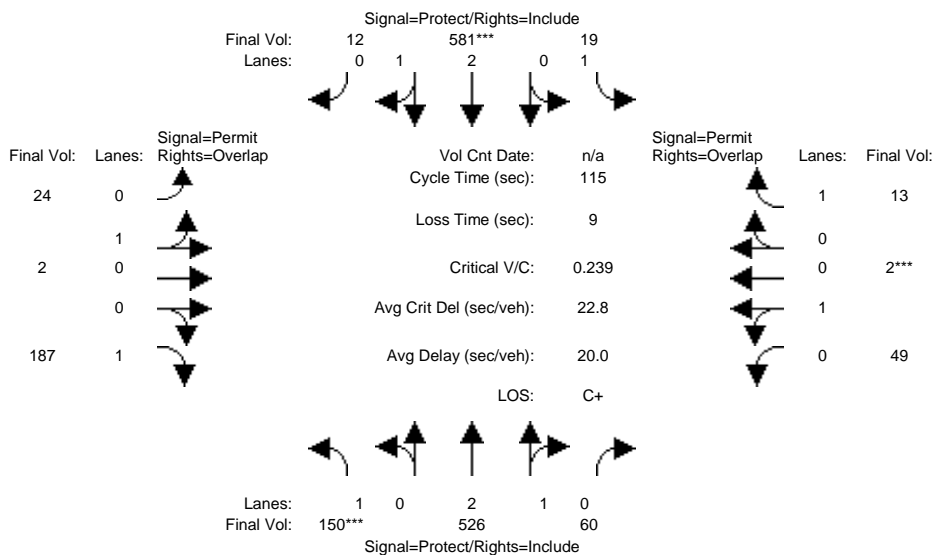
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting 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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing MD

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 150  | 526  | 60   | 19   | 581  | 12   | 24   | 2    | 187  | 49   | 2    | 13   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 150  | 526  | 60   | 19   | 581  | 12   | 24   | 2    | 187  | 49   | 2    | 13   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 150  | 526  | 60   | 19   | 581  | 12   | 24   | 2    | 187  | 49   | 2    | 13   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 150  | 526  | 60   | 19   | 581  | 12   | 24   | 2    | 187  | 49   | 2    | 13   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 150  | 526  | 60   | 19   | 581  | 12   | 24   | 2    | 187  | 49   | 2    | 13   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 150  | 526  | 60   | 19   | 581  | 12   | 24   | 2    | 187  | 49   | 2    | 13   |

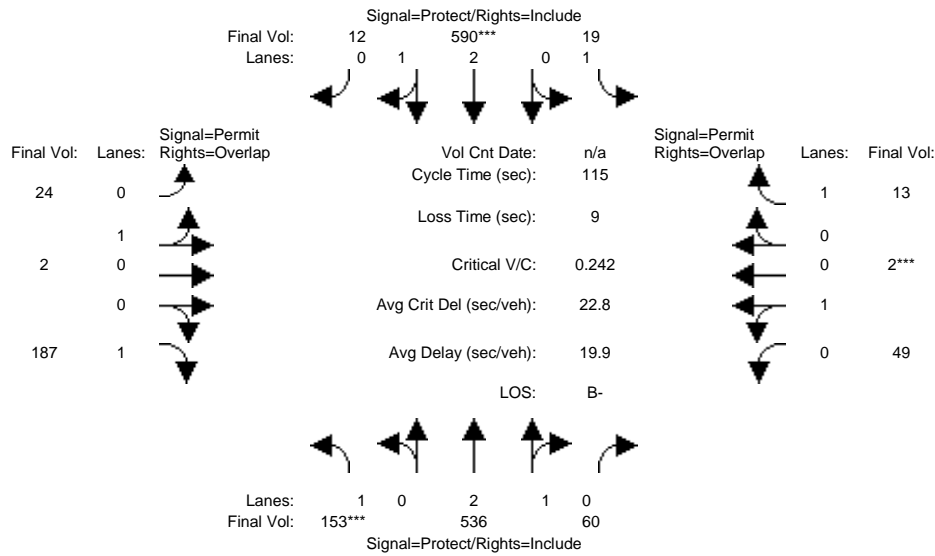
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.68 | 0.32 | 1.00 | 2.94 | 0.06 | 0.92 | 0.08 | 1.00 | 0.96 | 0.04 | 1.00 |
| Final Sat.:             | 1750 | 5026 | 573  | 1750 | 5487 | 113  | 1662 | 138  | 1750 | 1729 | 71   | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.09 | 0.10 | 0.10 | 0.01 | 0.11 | 0.11 | 0.01 | 0.01 | 0.11 | 0.03 | 0.03 | 0.01 |
| Crit Moves:               | ***  |      |      |      | **** |      |      |      |      |      | **** |      |
| Green Time:               | 41.3 | 58.4 | 58.4 | 34.0 | 51.0 | 51.0 | 13.7 | 13.7 | 55.0 | 13.7 | 13.7 | 47.6 |
| Volume/Cap:               | 0.24 | 0.21 | 0.21 | 0.04 | 0.24 | 0.24 | 0.12 | 0.12 | 0.22 | 0.24 | 0.24 | 0.02 |
| Uniform Del:              | 25.8 | 15.6 | 15.6 | 28.9 | 19.9 | 19.9 | 45.3 | 45.3 | 17.5 | 46.0 | 46.0 | 19.9 |
| IncrcmntDel:              | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.3  | 0.3  | 0.1  | 0.6  | 0.6  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 26.0 | 15.6 | 15.6 | 28.9 | 19.9 | 19.9 | 45.6 | 45.6 | 17.7 | 46.5 | 46.5 | 19.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 26.0 | 15.6 | 15.6 | 28.9 | 19.9 | 19.9 | 45.6 | 45.6 | 17.7 | 46.5 | 46.5 | 19.9 |
| LOS by Move:              | C    | B    | B    | C    | B-   | B-   | D    | D    | B    | D    | D    | B-   |
| HCM2kAvgQ:                | 4    | 4    | 4    | 1    | 4    | 4    | 1    | 1    | 4    | 2    | 2    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|----------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
| Base Vol:      | 150              | 526  | 60   | 19               | 581  | 12   | 24             | 2    | 187  | 49             | 2    | 13   |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Initial Bse:   | 150              | 526  | 60   | 19               | 581  | 12   | 24             | 2    | 187  | 49             | 2    | 13   |
| Added Vol:     | 3                | 10   | 0    | 0                | 9    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| Initial Fut:   | 153              | 536  | 60   | 19               | 590  | 12   | 24             | 2    | 187  | 49             | 2    | 13   |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| PHF Volume:    | 153              | 536  | 60   | 19               | 590  | 12   | 24             | 2    | 187  | 49             | 2    | 13   |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| Reduced Vol:   | 153              | 536  | 60   | 19               | 590  | 12   | 24             | 2    | 187  | 49             | 2    | 13   |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Final Volume:  | 153              | 536  | 60   | 19               | 590  | 12   | 24             | 2    | 187  | 49             | 2    | 13   |

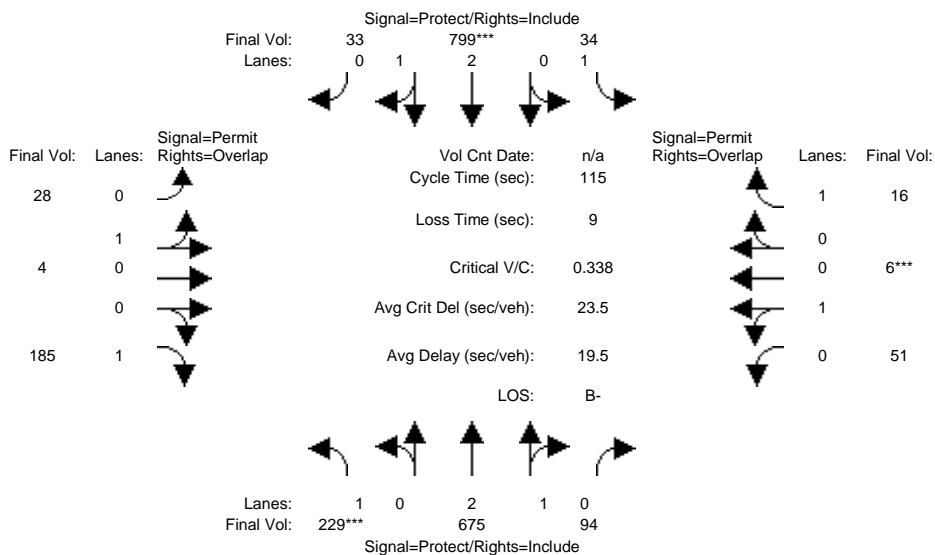
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900           | 1900 | 1900 | 1900           | 1900 | 1900 |
| Adjustment:             | 0.92             | 0.99 | 0.95 | 0.92             | 0.98 | 0.95 | 0.95           | 0.95 | 0.92 | 0.95           | 0.95 | 0.92 |
| Lanes:                  | 1.00             | 2.69 | 0.31 | 1.00             | 2.94 | 0.06 | 0.92           | 0.08 | 1.00 | 0.96           | 0.04 | 1.00 |
| Final Sat.:             | 1750             | 5035 | 564  | 1750             | 5488 | 112  | 1662           | 138  | 1750 | 1729           | 71   | 1750 |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|---------------------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
| Vol/Sat:                  | 0.09             | 0.11 | 0.11 | 0.01             | 0.11 | 0.11 | 0.01           | 0.01 | 0.11 | 0.03           | 0.03 | 0.01 |
| Crit Moves:               | ****             |      |      |                  | **** |      |                |      |      |                | **** |      |
| Green Time:               | 41.5             | 58.9 | 58.9 | 33.7             | 51.0 | 51.0 | 13.5           | 13.5 | 55.0 | 13.5           | 13.5 | 47.1 |
| Volume/Cap:               | 0.24             | 0.21 | 0.21 | 0.04             | 0.24 | 0.24 | 0.12           | 0.12 | 0.22 | 0.24           | 0.24 | 0.02 |
| Uniform Del:              | 25.7             | 15.3 | 15.3 | 29.1             | 19.9 | 19.9 | 45.5           | 45.5 | 17.5 | 46.1           | 46.1 | 20.2 |
| IncrcmntDel:              | 0.2              | 0.0  | 0.0  | 0.0              | 0.1  | 0.1  | 0.3            | 0.3  | 0.1  | 0.6            | 0.6  | 0.0  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0            | 0.0  | 0.0  | 0.0            | 0.0  | 0.0  |
| Delay Adj:                | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Delay/Veh:                | 25.9             | 15.4 | 15.4 | 29.1             | 20.0 | 20.0 | 45.8           | 45.8 | 17.7 | 46.7           | 46.7 | 20.2 |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| AdjDel/Veh:               | 25.9             | 15.4 | 15.4 | 29.1             | 20.0 | 20.0 | 45.8           | 45.8 | 17.7 | 46.7           | 46.7 | 20.2 |
| LOS by Move:              | C                | B    | B    | C                | B-   | B-   | D              | D    | B    | D              | D    | C+   |
| HCM2kAvgQ:                | 4                | 4    | 4    | 1                | 4    | 4    | 1              | 1    | 4    | 2              | 2    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                | 229  | 675  | 94   | 34   | 799  | 33   | 28   | 4    | 185  | 51   | 6    | 16   |
| Base Vol:      | 229  | 675  | 94   | 34   | 799  | 33   | 28   | 4    | 185  | 51   | 6    | 16   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 229  | 675  | 94   | 34   | 799  | 33   | 28   | 4    | 185  | 51   | 6    | 16   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 229  | 675  | 94   | 34   | 799  | 33   | 28   | 4    | 185  | 51   | 6    | 16   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 229  | 675  | 94   | 34   | 799  | 33   | 28   | 4    | 185  | 51   | 6    | 16   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 229  | 675  | 94   | 34   | 799  | 33   | 28   | 4    | 185  | 51   | 6    | 16   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 229  | 675  | 94   | 34   | 799  | 33   | 28   | 4    | 185  | 51   | 6    | 16   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                         | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.62 | 0.38 | 1.00 | 2.88 | 0.12 | 0.87 | 0.13 | 1.00 | 0.89 | 0.11 | 1.00 |
| Final Sat.:             | 1750 | 4915 | 684  | 1750 | 5378 | 222  | 1575 | 225  | 1750 | 1611 | 189  | 1750 |

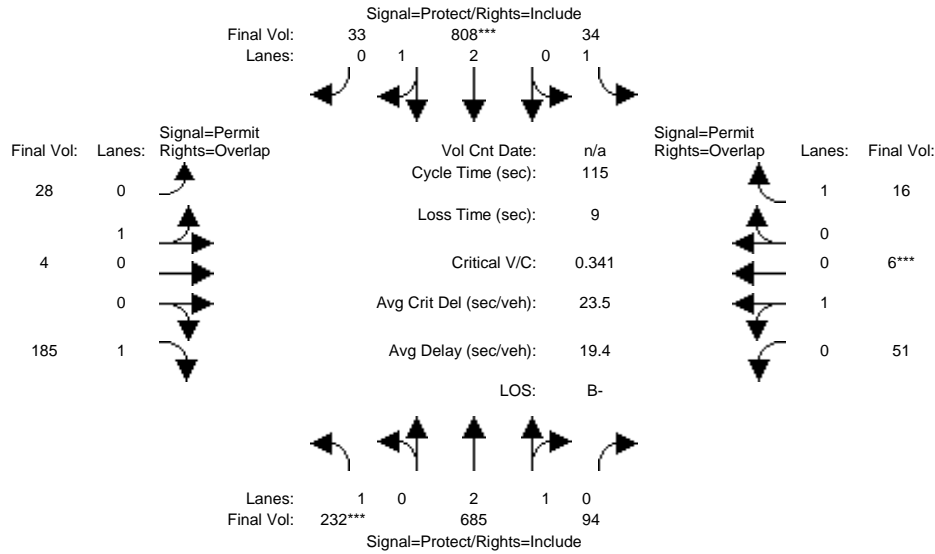
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                           | 0.13 | 0.14 | 0.14 | 0.02 | 0.15 | 0.15 | 0.02 | 0.02 | 0.11 | 0.03 | 0.03 | 0.01 |
| Vol/Sat:                  | 0.13 | 0.14 | 0.14 | 0.02 | 0.15 | 0.15 | 0.02 | 0.02 | 0.11 | 0.03 | 0.03 | 0.01 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      |      | **** |      |
| Green Time:               | 44.6 | 66.0 | 66.0 | 29.2 | 50.6 | 50.6 | 10.8 | 10.8 | 55.4 | 10.8 | 10.8 | 40.0 |
| Volume/Cap:               | 0.34 | 0.24 | 0.24 | 0.08 | 0.34 | 0.34 | 0.19 | 0.19 | 0.22 | 0.34 | 0.34 | 0.03 |
| Uniform Del:              | 24.8 | 12.1 | 12.1 | 32.6 | 21.2 | 21.2 | 48.1 | 48.1 | 17.3 | 48.8 | 48.8 | 24.7 |
| IncrcmntDel:              | 0.3  | 0.0  | 0.0  | 0.1  | 0.1  | 0.1  | 0.5  | 0.5  | 0.1  | 1.2  | 1.2  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 25.1 | 12.2 | 12.2 | 32.7 | 21.2 | 21.2 | 48.6 | 48.6 | 17.4 | 50.0 | 50.0 | 24.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 25.1 | 12.2 | 12.2 | 32.7 | 21.2 | 21.2 | 48.6 | 48.6 | 17.4 | 50.0 | 50.0 | 24.7 |
| LOS by Move:              | C    | B    | B    | C-   | C+   | C+   | D    | D    | B    | D    | D    | C    |
| HCM2kAvgQ:                | 6    | 4    | 4    | 1    | 6    | 6    | 1    | 1    | 4    | 2    | 2    | 0    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P MD

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |                  |      |      |                  |      |      |                |      |      |                |      |      |
|----------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
|                | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|                | L                | T    | R    | L                | T    | R    | L              | T    | R    | L              | T    | R    |
| Base Vol:      | 229              | 675  | 94   | 34               | 799  | 33   | 28             | 4    | 185  | 51             | 6    | 16   |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Initial Bse:   | 229              | 675  | 94   | 34               | 799  | 33   | 28             | 4    | 185  | 51             | 6    | 16   |
| Added Vol:     | 3                | 10   | 0    | 0                | 9    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| Initial Fut:   | 232              | 685  | 94   | 34               | 808  | 33   | 28             | 4    | 185  | 51             | 6    | 16   |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| PHF Volume:    | 232              | 685  | 94   | 34               | 808  | 33   | 28             | 4    | 185  | 51             | 6    | 16   |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| Reduced Vol:   | 232              | 685  | 94   | 34               | 808  | 33   | 28             | 4    | 185  | 51             | 6    | 16   |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Final Volume:  | 232              | 685  | 94   | 34               | 808  | 33   | 28             | 4    | 185  | 51             | 6    | 16   |

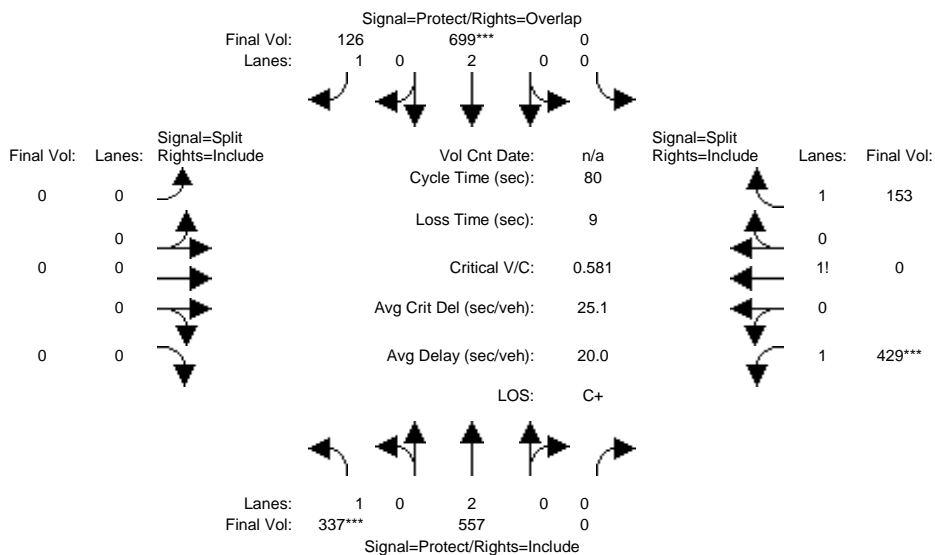
| Saturation Flow Module: |                  |      |      |                  |      |      |                |      |      |                |      |      |
|-------------------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
|                         | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|                         | L                | T    | R    | L                | T    | R    | L              | T    | R    | L              | T    | R    |
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900           | 1900 | 1900 | 1900           | 1900 | 1900 |
| Adjustment:             | 0.92             | 0.99 | 0.95 | 0.92             | 0.98 | 0.95 | 0.95           | 0.95 | 0.92 | 0.95           | 0.95 | 0.92 |
| Lanes:                  | 1.00             | 2.62 | 0.38 | 1.00             | 2.88 | 0.12 | 0.87           | 0.13 | 1.00 | 0.89           | 0.11 | 1.00 |
| Final Sat.:             | 1750             | 4923 | 676  | 1750             | 5380 | 220  | 1575           | 225  | 1750 | 1611           | 189  | 1750 |

| Capacity Analysis Module: |                  |      |      |                  |      |      |                |      |      |                |      |      |
|---------------------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
|                           | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|                           | L                | T    | R    | L                | T    | R    | L              | T    | R    | L              | T    | R    |
| Vol/Sat:                  | 0.13             | 0.14 | 0.14 | 0.02             | 0.15 | 0.15 | 0.02           | 0.02 | 0.11 | 0.03           | 0.03 | 0.01 |
| Crit Moves:               | ****             |      |      |                  | **** |      |                |      |      |                | **** |      |
| Green Time:               | 44.7             | 66.3 | 66.3 | 29.0             | 50.6 | 50.6 | 10.7           | 10.7 | 55.4 | 10.7           | 10.7 | 39.7 |
| Volume/Cap:               | 0.34             | 0.24 | 0.24 | 0.08             | 0.34 | 0.34 | 0.19           | 0.19 | 0.22 | 0.34           | 0.34 | 0.03 |
| Uniform Del:              | 24.8             | 12.0 | 12.0 | 32.8             | 21.2 | 21.2 | 48.2           | 48.2 | 17.3 | 48.9           | 48.9 | 24.9 |
| IncrcmntDel:              | 0.3              | 0.0  | 0.0  | 0.1              | 0.1  | 0.1  | 0.6            | 0.6  | 0.1  | 1.2            | 1.2  | 0.0  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0            | 0.0  | 0.0  | 0.0            | 0.0  | 0.0  |
| Delay Adj:                | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Delay/Veh:                | 25.1             | 12.0 | 12.0 | 32.9             | 21.3 | 21.3 | 48.7           | 48.7 | 17.4 | 50.1           | 50.1 | 24.9 |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| AdjDel/Veh:               | 25.1             | 12.0 | 12.0 | 32.9             | 21.3 | 21.3 | 48.7           | 48.7 | 17.4 | 50.1           | 50.1 | 24.9 |
| LOS by Move:              | C                | B    | B    | C-               | C+   | C+   | D              | D    | B    | D              | D    | C    |
| HCM2kAvgQ:                | 6                | 4    | 4    | 1                | 7    | 7    | 1              | 1    | 4    | 2              | 2    | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing MD

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 337         | 557  | 0    | 0           | 699  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 337         | 557  | 0    | 0           | 699  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 337         | 557  | 0    | 0           | 699  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 337         | 557  | 0    | 0           | 699  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 337         | 557  | 0    | 0           | 699  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 337         | 557  | 0    | 0           | 699  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |

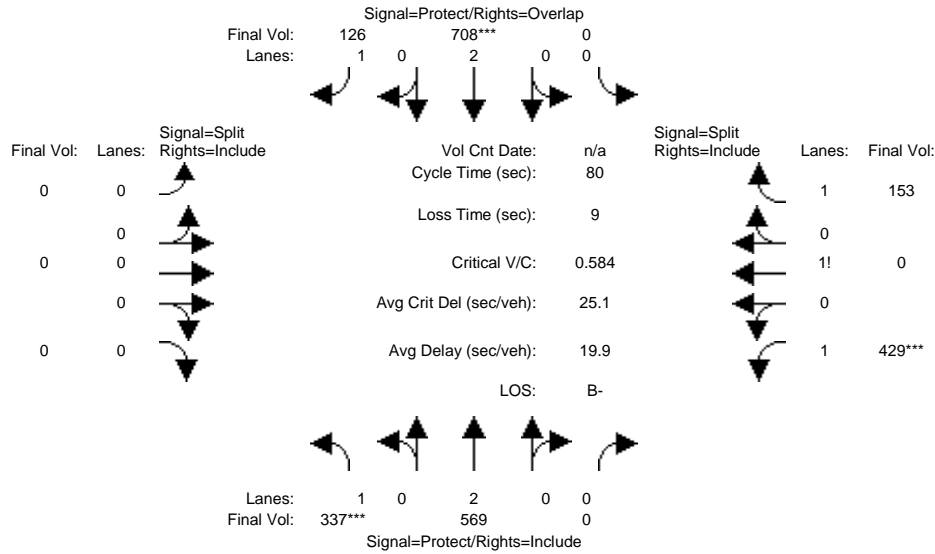
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.93       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.73       | 0.00 | 1.27 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 3078       | 0    | 2215 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.19        | 0.15 | 0.00 | 0.00        | 0.18 | 0.07 | 0.00       | 0.00 | 0.00 | 0.14       | 0.00 | 0.07 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 26.5        | 51.8 | 0.0  | 0.0         | 25.3 | 25.3 | 0.0        | 0.0  | 0.0  | 19.2       | 0.0  | 19.2 |
| Volume/Cap:               | 0.58        | 0.23 | 0.00 | 0.00        | 0.58 | 0.23 | 0.00       | 0.00 | 0.00 | 0.58       | 0.00 | 0.29 |
| Uniform Del:              | 22.2        | 5.8  | 0.0  | 0.0         | 22.9 | 20.1 | 0.0        | 0.0  | 0.0  | 26.9       | 0.0  | 24.8 |
| IncrcmntDel:              | 1.5         | 0.0  | 0.0  | 0.0         | 0.7  | 0.2  | 0.0        | 0.0  | 0.0  | 0.9        | 0.0  | 0.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 0.00 | 1.00 |
| Delay/Veh:                | 23.6        | 5.9  | 0.0  | 0.0         | 23.6 | 20.3 | 0.0        | 0.0  | 0.0  | 27.7       | 0.0  | 24.9 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 23.6        | 5.9  | 0.0  | 0.0         | 23.6 | 20.3 | 0.0        | 0.0  | 0.0  | 27.7       | 0.0  | 24.9 |
| LOS by Move:              | C           | A    | A    | A           | C    | C+   | A          | A    | A    | C          | A    | C    |
| HCM2kAvgQ:                | 8           | 3    | 0    | 0           | 7    | 2    | 0          | 0    | 0    | 7          | 0    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 337         | 557  | 0    | 0           | 699  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 337         | 557  | 0    | 0           | 699  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| Added Vol:     | 0           | 12   | 0    | 0           | 9    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 337         | 569  | 0    | 0           | 708  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 337         | 569  | 0    | 0           | 708  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 337         | 569  | 0    | 0           | 708  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 337         | 569  | 0    | 0           | 708  | 126  | 0          | 0    | 0    | 429        | 0    | 153  |

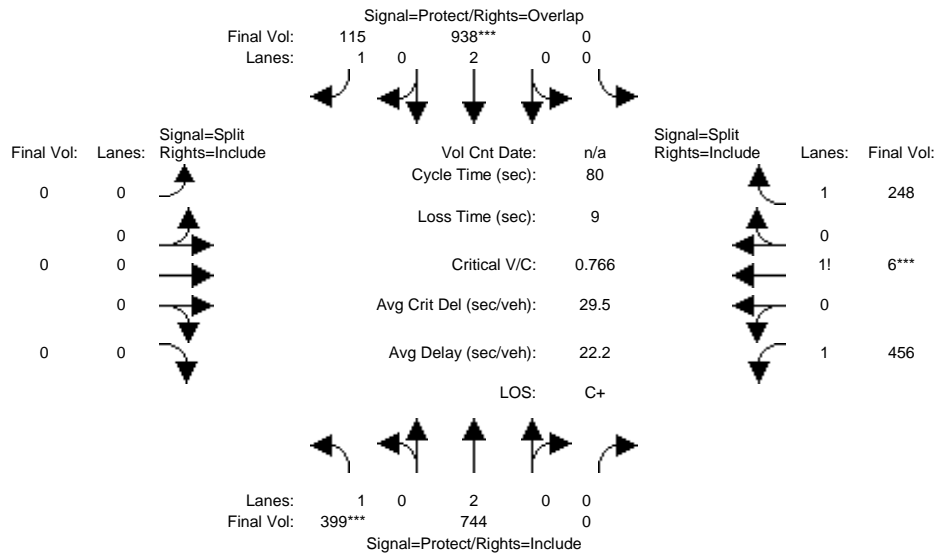
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.93       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.73       | 0.00 | 1.27 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 3078       | 0    | 2215 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.19        | 0.15 | 0.00 | 0.00        | 0.19 | 0.07 | 0.00       | 0.00 | 0.00 | 0.14       | 0.00 | 0.07 |
| Crit Moves:               | ***         |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 26.4        | 51.9 | 0.0  | 0.0         | 25.5 | 25.5 | 0.0        | 0.0  | 0.0  | 19.1       | 0.0  | 19.1 |
| Volume/Cap:               | 0.58        | 0.23 | 0.00 | 0.00        | 0.58 | 0.23 | 0.00       | 0.00 | 0.00 | 0.58       | 0.00 | 0.29 |
| Uniform Del:              | 22.3        | 5.8  | 0.0  | 0.0         | 22.8 | 20.0 | 0.0        | 0.0  | 0.0  | 26.9       | 0.0  | 24.9 |
| IncrcmntDel:              | 1.5         | 0.0  | 0.0  | 0.0         | 0.7  | 0.2  | 0.0        | 0.0  | 0.0  | 0.9        | 0.0  | 0.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 0.00 | 1.00 |
| Delay/Veh:                | 23.8        | 5.8  | 0.0  | 0.0         | 23.5 | 20.2 | 0.0        | 0.0  | 0.0  | 27.8       | 0.0  | 25.0 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 23.8        | 5.8  | 0.0  | 0.0         | 23.5 | 20.2 | 0.0        | 0.0  | 0.0  | 27.8       | 0.0  | 25.0 |
| LOS by Move:              | C           | A    | A    | A           | C    | C+   | A          | A    | A    | C          | A    | C    |
| HCM2kAvgQ:                | 8           | 3    | 0    | 0           | 7    | 2    | 0          | 0    | 0    | 7          | 0    | 3    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd MD

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 399         | 744  | 0    | 0           | 938  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 399         | 744  | 0    | 0           | 938  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 399         | 744  | 0    | 0           | 938  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 399         | 744  | 0    | 0           | 938  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 399         | 744  | 0    | 0           | 938  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 399         | 744  | 0    | 0           | 938  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |

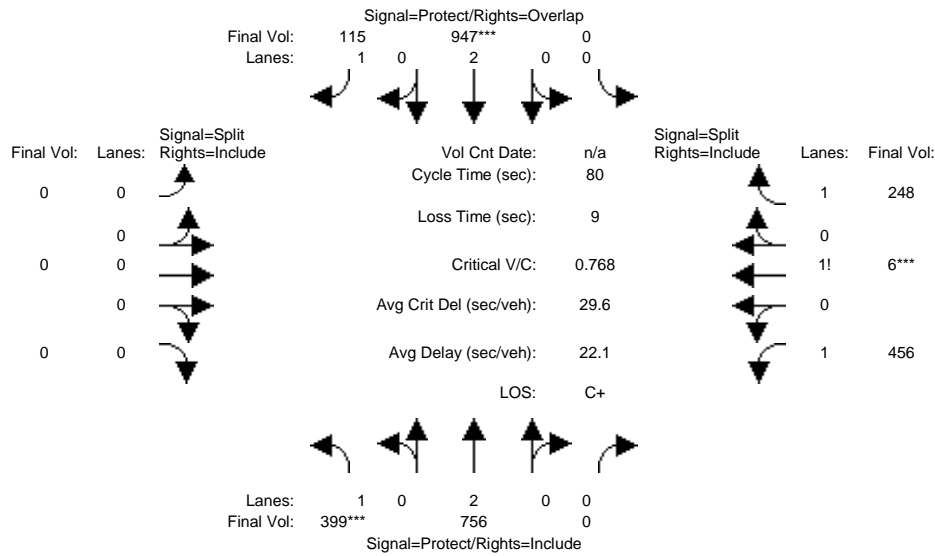
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.64       | 0.02 | 1.34 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 2865       | 29   | 2356 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.23        | 0.20 | 0.00 | 0.00        | 0.25 | 0.07 | 0.00       | 0.00 | 0.00 | 0.16       | 0.20 | 0.11 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 23.8        | 49.6 | 0.0  | 0.0         | 25.8 | 25.8 | 0.0        | 0.0  | 0.0  | 21.4       | 21.4 | 21.4 |
| Volume/Cap:               | 0.77        | 0.32 | 0.00 | 0.00        | 0.77 | 0.20 | 0.00       | 0.00 | 0.00 | 0.60       | 0.77 | 0.39 |
| Uniform Del:              | 25.5        | 7.2  | 0.0  | 0.0         | 24.4 | 19.7 | 0.0        | 0.0  | 0.0  | 25.5       | 27.0 | 24.0 |
| IncrcmntDel:              | 6.7         | 0.1  | 0.0  | 0.0         | 2.9  | 0.2  | 0.0        | 0.0  | 0.0  | 0.8        | 3.9  | 0.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 32.2        | 7.2  | 0.0  | 0.0         | 27.3 | 19.8 | 0.0        | 0.0  | 0.0  | 26.4       | 30.9 | 24.1 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 32.2        | 7.2  | 0.0  | 0.0         | 27.3 | 19.8 | 0.0        | 0.0  | 0.0  | 26.4       | 30.9 | 24.1 |
| LOS by Move:              | C-          | A    | A    | A           | C    | B-   | A          | A    | A    | C          | C    | C    |
| HCM2kAvgQ:                | 12          | 4    | 0    | 0           | 11   | 2    | 0          | 0    | 0    | 7          | 11   | 4    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P MD

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 399         | 744  | 0    | 0           | 938  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 399         | 744  | 0    | 0           | 938  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| Added Vol:     | 0           | 12   | 0    | 0           | 9    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 399         | 756  | 0    | 0           | 947  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 399         | 756  | 0    | 0           | 947  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 399         | 756  | 0    | 0           | 947  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 399         | 756  | 0    | 0           | 947  | 115  | 0          | 0    | 0    | 456        | 6    | 248  |

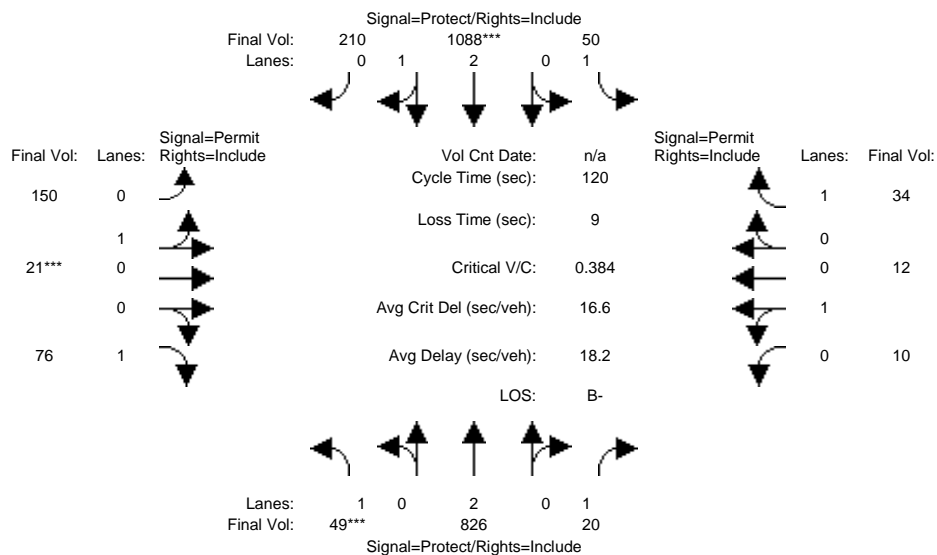
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.64       | 0.02 | 1.34 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 2865       | 29   | 2356 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.23        | 0.20 | 0.00 | 0.00        | 0.25 | 0.07 | 0.00       | 0.00 | 0.00 | 0.16       | 0.20 | 0.11 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 23.7        | 49.7 | 0.0  | 0.0         | 26.0 | 26.0 | 0.0        | 0.0  | 0.0  | 21.3       | 21.3 | 21.3 |
| Volume/Cap:               | 0.77        | 0.32 | 0.00 | 0.00        | 0.77 | 0.20 | 0.00       | 0.00 | 0.00 | 0.60       | 0.77 | 0.40 |
| Uniform Del:              | 25.6        | 7.2  | 0.0  | 0.0         | 24.3 | 19.5 | 0.0        | 0.0  | 0.0  | 25.6       | 27.1 | 24.1 |
| IncrcmntDel:              | 6.8         | 0.1  | 0.0  | 0.0         | 3.0  | 0.2  | 0.0        | 0.0  | 0.0  | 0.8        | 4.0  | 0.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 32.5        | 7.2  | 0.0  | 0.0         | 27.3 | 19.7 | 0.0        | 0.0  | 0.0  | 26.5       | 31.0 | 24.2 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 32.5        | 7.2  | 0.0  | 0.0         | 27.3 | 19.7 | 0.0        | 0.0  | 0.0  | 26.5       | 31.0 | 24.2 |
| LOS by Move:              | C-          | A    | A    | A           | C    | B-   | A          | A    | A    | C          | C    | C    |
| HCM2kAvgQ:                | 12          | 4    | 0    | 0           | 11   | 2    | 0          | 0    | 0    | 7          | 11   | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing MD

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 49   | 826  | 20   | 50   | 1088 | 210  | 150  | 21   | 76   | 10   | 12   | 34   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 49   | 826  | 20   | 50   | 1088 | 210  | 150  | 21   | 76   | 10   | 12   | 34   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 49   | 826  | 20   | 50   | 1088 | 210  | 150  | 21   | 76   | 10   | 12   | 34   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 49   | 826  | 20   | 50   | 1088 | 210  | 150  | 21   | 76   | 10   | 12   | 34   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 49   | 826  | 20   | 50   | 1088 | 210  | 150  | 21   | 76   | 10   | 12   | 34   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 49   | 826  | 20   | 50   | 1088 | 210  | 150  | 21   | 76   | 10   | 12   | 34   |

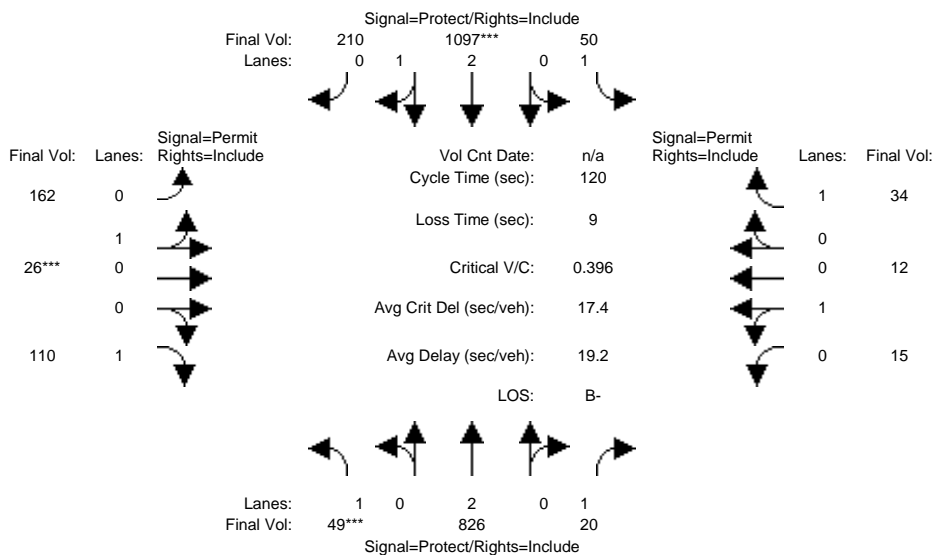
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.50 | 0.50 | 0.88 | 0.12 | 1.00 | 0.45 | 0.55 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 4693 | 906  | 1579 | 221  | 1750 | 818  | 982  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.22 | 0.01 | 0.03 | 0.23 | 0.23 | 0.10 | 0.10 | 0.04 | 0.01 | 0.01 | 0.02 |
| Crit Moves:               | ***  |      |      | **** |      |      | **** |      |      |      |      |      |
| Green Time:               | 8.8  | 64.1 | 64.1 | 17.2 | 72.5 | 72.5 | 29.7 | 29.7 | 29.7 | 29.7 | 29.7 | 29.7 |
| Volume/Cap:               | 0.38 | 0.41 | 0.02 | 0.20 | 0.38 | 0.38 | 0.38 | 0.38 | 0.18 | 0.05 | 0.05 | 0.08 |
| Uniform Del:              | 53.0 | 16.6 | 13.2 | 45.3 | 12.2 | 12.2 | 37.5 | 37.5 | 35.5 | 34.4 | 34.4 | 34.6 |
| IncrcmntDel:              | 1.9  | 0.1  | 0.0  | 0.4  | 0.1  | 0.1  | 0.6  | 0.6  | 0.2  | 0.0  | 0.0  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 55.0 | 16.8 | 13.2 | 45.7 | 12.3 | 12.3 | 38.1 | 38.1 | 35.7 | 34.4 | 34.4 | 34.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 55.0 | 16.8 | 13.2 | 45.7 | 12.3 | 12.3 | 38.1 | 38.1 | 35.7 | 34.4 | 34.4 | 34.7 |
| LOS by Move:              | D-   | B    | B    | D    | B    | B    | D+   | D+   | D+   | C-   | C-   | C-   |
| HCM2kAvgQ:                | 2    | 9    | 0    | 2    | 8    | 8    | 6    | 6    | 2    | 1    | 1    | 1    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 49   | 826  | 20   | 50   | 1088 | 210  | 150  | 21   | 76   | 10   | 12   | 34   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 49   | 826  | 20   | 50   | 1088 | 210  | 150  | 21   | 76   | 10   | 12   | 34   |
| Added Vol:     | 0    | 0    | 0    | 0    | 9    | 0    | 12   | 5    | 34   | 5    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 49   | 826  | 20   | 50   | 1097 | 210  | 162  | 26   | 110  | 15   | 12   | 34   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 49   | 826  | 20   | 50   | 1097 | 210  | 162  | 26   | 110  | 15   | 12   | 34   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 49   | 826  | 20   | 50   | 1097 | 210  | 162  | 26   | 110  | 15   | 12   | 34   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 49   | 826  | 20   | 50   | 1097 | 210  | 162  | 26   | 110  | 15   | 12   | 34   |

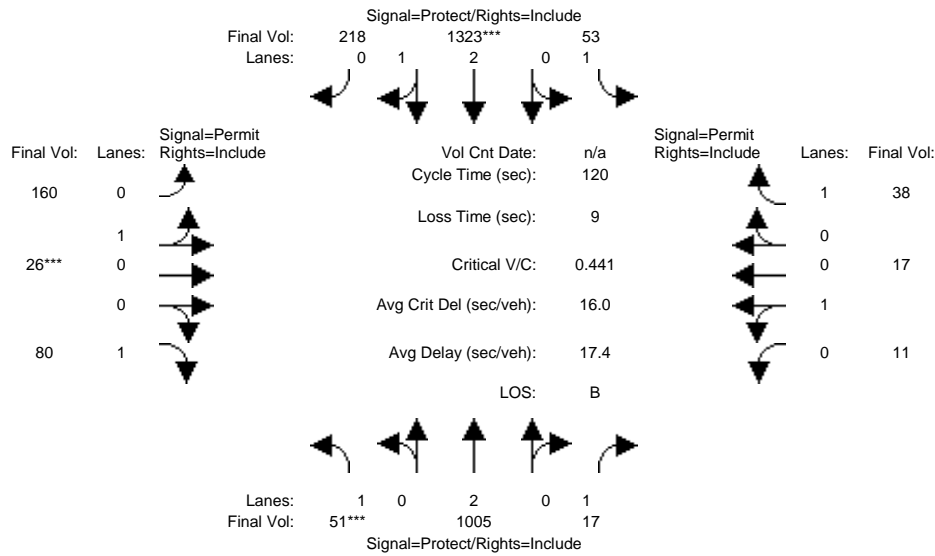
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.50 | 0.50 | 0.86 | 0.14 | 1.00 | 0.56 | 0.44 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 4699 | 900  | 1551 | 249  | 1750 | 1000 | 800  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.22 | 0.01 | 0.03 | 0.23 | 0.23 | 0.10 | 0.10 | 0.06 | 0.02 | 0.02 | 0.02 |
| Crit Moves:               | ***  |      |      |      | **** |      |      | **** |      |      |      |      |
| Green Time:               | 8.5  | 62.5 | 62.5 | 16.8 | 70.8 | 70.8 | 31.7 | 31.7 | 31.7 | 31.7 | 31.7 | 31.7 |
| Volume/Cap:               | 0.40 | 0.42 | 0.02 | 0.20 | 0.40 | 0.40 | 0.40 | 0.40 | 0.24 | 0.06 | 0.06 | 0.07 |
| Uniform Del:              | 53.3 | 17.6 | 13.9 | 45.7 | 13.1 | 13.1 | 36.3 | 36.3 | 34.7 | 33.0 | 33.0 | 33.1 |
| IncrcmntDel:              | 2.1  | 0.1  | 0.0  | 0.4  | 0.1  | 0.1  | 0.5  | 0.5  | 0.3  | 0.1  | 0.1  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 55.4 | 17.7 | 13.9 | 46.1 | 13.2 | 13.2 | 36.8 | 36.8 | 34.9 | 33.0 | 33.0 | 33.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 55.4 | 17.7 | 13.9 | 46.1 | 13.2 | 13.2 | 36.8 | 36.8 | 34.9 | 33.0 | 33.0 | 33.2 |
| LOS by Move:              | E+   | B    | B    | D    | B    | B    | D+   | D+   | C-   | C-   | C-   | C-   |
| HCM2kAvgQ:                | 2    | 9    | 0    | 2    | 9    | 9    | 6    | 6    | 3    | 1    | 1    | 1    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 51   | 1005 | 17   | 53   | 1323 | 218  | 160  | 26   | 80   | 11   | 17   | 38   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 51   | 1005 | 17   | 53   | 1323 | 218  | 160  | 26   | 80   | 11   | 17   | 38   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 51   | 1005 | 17   | 53   | 1323 | 218  | 160  | 26   | 80   | 11   | 17   | 38   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 51   | 1005 | 17   | 53   | 1323 | 218  | 160  | 26   | 80   | 11   | 17   | 38   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 51   | 1005 | 17   | 53   | 1323 | 218  | 160  | 26   | 80   | 11   | 17   | 38   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 51   | 1005 | 17   | 53   | 1323 | 218  | 160  | 26   | 80   | 11   | 17   | 38   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.56 | 0.44 | 0.86 | 0.14 | 1.00 | 0.39 | 0.61 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 4807 | 792  | 1548 | 252  | 1750 | 707  | 1093 | 1750 |

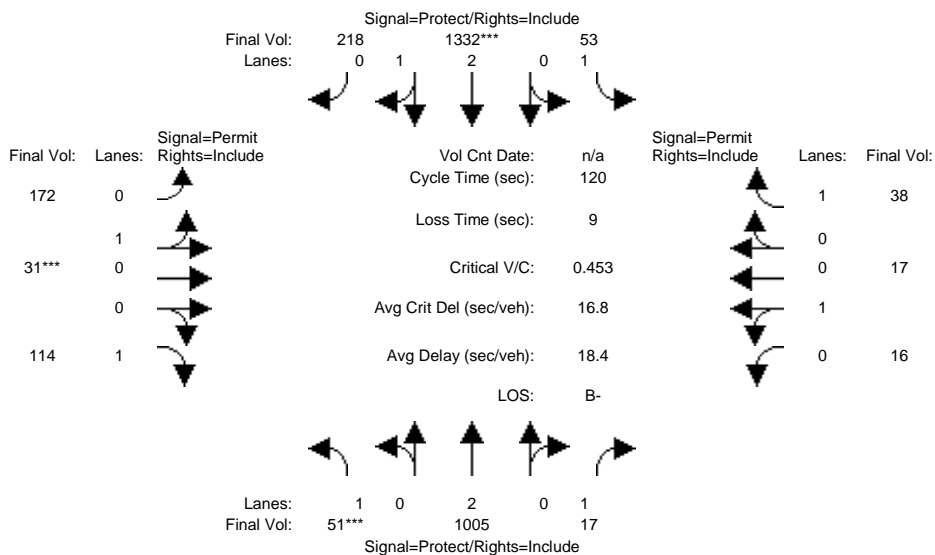
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.26 | 0.01 | 0.03 | 0.28 | 0.28 | 0.10 | 0.10 | 0.05 | 0.02 | 0.02 | 0.02 |
| Crit Moves:               | **** |      |      |      | **** |      |      | **** |      |      |      |      |
| Green Time:               | 7.9  | 67.9 | 67.9 | 15.0 | 74.9 | 74.9 | 28.1 | 28.1 | 28.1 | 28.1 | 28.1 | 28.1 |
| Volume/Cap:               | 0.44 | 0.47 | 0.02 | 0.24 | 0.44 | 0.44 | 0.44 | 0.44 | 0.19 | 0.07 | 0.07 | 0.09 |
| Uniform Del:              | 53.9 | 15.4 | 11.4 | 47.4 | 11.7 | 11.7 | 39.2 | 39.2 | 36.8 | 35.7 | 35.7 | 35.9 |
| IncrcmntDel:              | 2.7  | 0.2  | 0.0  | 0.6  | 0.1  | 0.1  | 0.7  | 0.7  | 0.2  | 0.1  | 0.1  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 56.6 | 15.5 | 11.4 | 48.0 | 11.8 | 11.8 | 40.0 | 40.0 | 37.1 | 35.8 | 35.8 | 36.0 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 56.6 | 15.5 | 11.4 | 48.0 | 11.8 | 11.8 | 40.0 | 40.0 | 37.1 | 35.8 | 35.8 | 36.0 |
| LOS by Move:              | E+   | B    | B+   | D    | B+   | B+   | D    | D    | D+   | D+   | D+   | D+   |
| HCM2kAvgQ:                | 2    | 10   | 0    | 2    | 10   | 10   | 6    | 6    | 3    | 1    | 1    | 1    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P MD

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 51   | 1005 | 17   | 53   | 1323 | 218  | 160  | 26   | 80   | 11   | 17   | 38   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 51   | 1005 | 17   | 53   | 1323 | 218  | 160  | 26   | 80   | 11   | 17   | 38   |
| Added Vol:     | 0    | 0    | 0    | 0    | 9    | 0    | 12   | 5    | 34   | 5    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 51   | 1005 | 17   | 53   | 1332 | 218  | 172  | 31   | 114  | 16   | 17   | 38   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 51   | 1005 | 17   | 53   | 1332 | 218  | 172  | 31   | 114  | 16   | 17   | 38   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 51   | 1005 | 17   | 53   | 1332 | 218  | 172  | 31   | 114  | 16   | 17   | 38   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 51   | 1005 | 17   | 53   | 1332 | 218  | 172  | 31   | 114  | 16   | 17   | 38   |

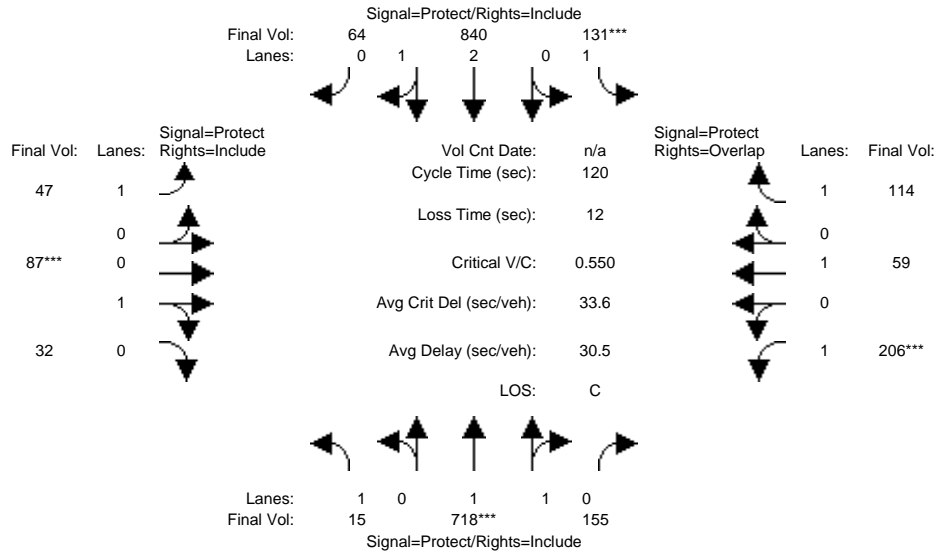
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.56 | 0.44 | 0.85 | 0.15 | 1.00 | 0.48 | 0.52 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 4811 | 787  | 1525 | 275  | 1750 | 873  | 927  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.26 | 0.01 | 0.03 | 0.28 | 0.28 | 0.11 | 0.11 | 0.07 | 0.02 | 0.02 | 0.02 |
| Crit Moves:               | ***  |      |      | **** |      |      | **** |      |      |      |      |      |
| Green Time:               | 7.7  | 66.5 | 66.5 | 14.7 | 73.4 | 73.4 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 |
| Volume/Cap:               | 0.45 | 0.48 | 0.02 | 0.25 | 0.45 | 0.45 | 0.45 | 0.45 | 0.26 | 0.07 | 0.07 | 0.09 |
| Uniform Del:              | 54.1 | 16.2 | 12.1 | 47.7 | 12.5 | 12.5 | 38.1 | 38.1 | 36.2 | 34.5 | 34.5 | 34.6 |
| IncrcmntDel:              | 2.9  | 0.2  | 0.0  | 0.6  | 0.1  | 0.1  | 0.7  | 0.7  | 0.3  | 0.1  | 0.1  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 57.0 | 16.4 | 12.1 | 48.3 | 12.6 | 12.6 | 38.9 | 38.9 | 36.5 | 34.5 | 34.5 | 34.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 57.0 | 16.4 | 12.1 | 48.3 | 12.6 | 12.6 | 38.9 | 38.9 | 36.5 | 34.5 | 34.5 | 34.7 |
| LOS by Move:              | E+   | B    | B    | D    | B    | B    | D+   | D+   | D+   | C-   | C-   | C-   |
| HCM2kAvgQ:                | 2    | 11   | 0    | 2    | 10   | 10   | 7    | 7    | 4    | 1    | 1    | 1    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing MD

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 15   | 718  | 155  | 131  | 840  | 64   | 47   | 87   | 32   | 206  | 59   | 114  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 15   | 718  | 155  | 131  | 840  | 64   | 47   | 87   | 32   | 206  | 59   | 114  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 15   | 718  | 155  | 131  | 840  | 64   | 47   | 87   | 32   | 206  | 59   | 114  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 15   | 718  | 155  | 131  | 840  | 64   | 47   | 87   | 32   | 206  | 59   | 114  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 15   | 718  | 155  | 131  | 840  | 64   | 47   | 87   | 32   | 206  | 59   | 114  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 15   | 718  | 155  | 131  | 840  | 64   | 47   | 87   | 32   | 206  | 59   | 114  |

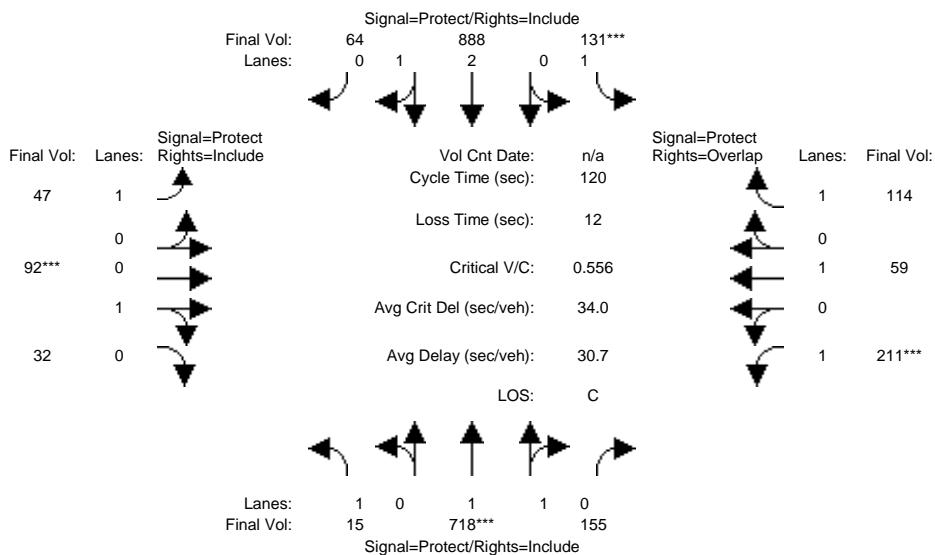
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.64 | 0.36 | 1.00 | 2.78 | 0.22 | 1.00 | 0.73 | 0.27 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 3043 | 657  | 1750 | 5203 | 396  | 1750 | 1316 | 484  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.24 | 0.24 | 0.07 | 0.16 | 0.16 | 0.03 | 0.07 | 0.07 | 0.12 | 0.03 | 0.07 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 18.0 | 51.5 | 51.5 | 16.3 | 49.9 | 49.9 | 16.5 | 14.4 | 14.4 | 25.7 | 23.6 | 40.0 |
| Volume/Cap:               | 0.06 | 0.55 | 0.55 | 0.55 | 0.39 | 0.39 | 0.20 | 0.55 | 0.55 | 0.55 | 0.16 | 0.20 |
| Uniform Del:              | 43.7 | 25.6 | 25.6 | 48.4 | 24.4 | 24.4 | 45.8 | 49.7 | 49.7 | 42.0 | 40.0 | 28.6 |
| IncrcmntDel:              | 0.1  | 0.4  | 0.4  | 2.7  | 0.1  | 0.1  | 0.4  | 3.0  | 3.0  | 1.7  | 0.2  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 43.8 | 26.0 | 26.0 | 51.1 | 24.6 | 24.6 | 46.2 | 52.7 | 52.7 | 43.7 | 40.2 | 28.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 43.8 | 26.0 | 26.0 | 51.1 | 24.6 | 24.6 | 46.2 | 52.7 | 52.7 | 43.7 | 40.2 | 28.7 |
| LOS by Move:              | D    | C    | C    | D-   | C    | C    | D    | D-   | D-   | D    | D    | C    |
| HCM2kAvgQ:                | 0    | 12   | 12   | 5    | 8    | 8    | 2    | 5    | 5    | 8    | 2    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                | 15   | 718  | 155  | 131  | 840  | 64   | 47   | 87   | 32   | 206  | 59   | 114  |
| Base Vol:      | 15   | 718  | 155  | 131  | 840  | 64   | 47   | 87   | 32   | 206  | 59   | 114  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 15   | 718  | 155  | 131  | 840  | 64   | 47   | 87   | 32   | 206  | 59   | 114  |
| Added Vol:     | 0    | 0    | 0    | 0    | 48   | 0    | 0    | 5    | 0    | 5    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 15   | 718  | 155  | 131  | 888  | 64   | 47   | 92   | 32   | 211  | 59   | 114  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 15   | 718  | 155  | 131  | 888  | 64   | 47   | 92   | 32   | 211  | 59   | 114  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 15   | 718  | 155  | 131  | 888  | 64   | 47   | 92   | 32   | 211  | 59   | 114  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 15   | 718  | 155  | 131  | 888  | 64   | 47   | 92   | 32   | 211  | 59   | 114  |

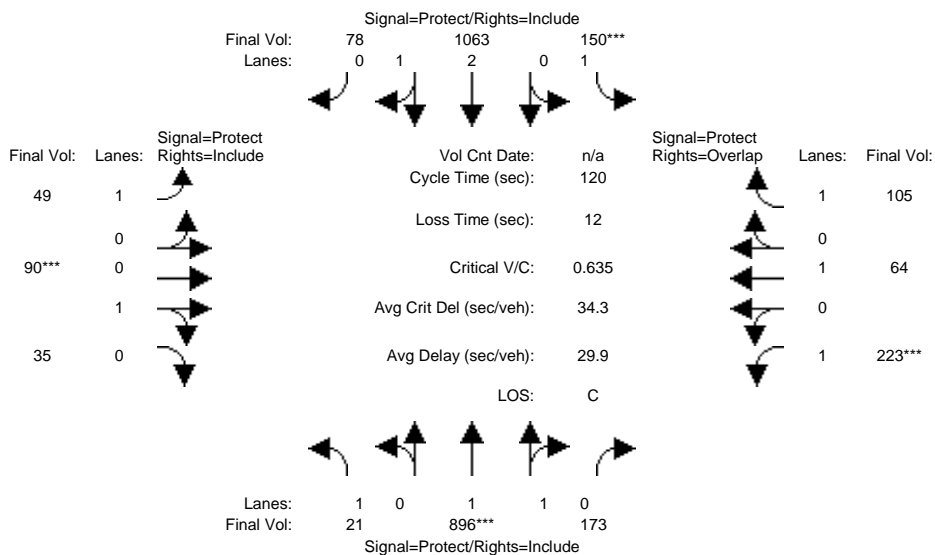
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                         | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.64 | 0.36 | 1.00 | 2.79 | 0.21 | 1.00 | 0.74 | 0.26 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 3043 | 657  | 1750 | 5223 | 376  | 1750 | 1335 | 465  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                           | 0.01 | 0.24 | 0.24 | 0.07 | 0.17 | 0.17 | 0.03 | 0.07 | 0.07 | 0.12 | 0.03 | 0.07 |
| Vol/Sat:                  | 0.01 | 0.24 | 0.24 | 0.07 | 0.17 | 0.17 | 0.03 | 0.07 | 0.07 | 0.12 | 0.03 | 0.07 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 17.1 | 50.9 | 50.9 | 16.2 | 50.0 | 50.0 | 16.8 | 14.9 | 14.9 | 26.0 | 24.1 | 40.2 |
| Volume/Cap:               | 0.06 | 0.56 | 0.56 | 0.56 | 0.41 | 0.41 | 0.19 | 0.56 | 0.56 | 0.56 | 0.15 | 0.19 |
| Uniform Del:              | 44.5 | 26.0 | 26.0 | 48.6 | 24.6 | 24.6 | 45.6 | 49.5 | 49.5 | 41.8 | 39.6 | 28.4 |
| IncrcmntDel:              | 0.1  | 0.4  | 0.4  | 2.9  | 0.1  | 0.1  | 0.4  | 3.1  | 3.1  | 1.8  | 0.2  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 44.6 | 26.5 | 26.5 | 51.5 | 24.7 | 24.7 | 45.9 | 52.5 | 52.5 | 43.7 | 39.8 | 28.5 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 44.6 | 26.5 | 26.5 | 51.5 | 24.7 | 24.7 | 45.9 | 52.5 | 52.5 | 43.7 | 39.8 | 28.5 |
| LOS by Move:              | D    | C    | C    | D-   | C    | C    | D    | D-   | D-   | D    | D    | C    |
| HCM2kAvgQ:                | 0    | 12   | 12   | 5    | 8    | 8    | 2    | 5    | 5    | 8    | 2    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 21   | 896  | 173  | 150  | 1063 | 78   | 49   | 90   | 35   | 223  | 64   | 105  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 21   | 896  | 173  | 150  | 1063 | 78   | 49   | 90   | 35   | 223  | 64   | 105  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 21   | 896  | 173  | 150  | 1063 | 78   | 49   | 90   | 35   | 223  | 64   | 105  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 21   | 896  | 173  | 150  | 1063 | 78   | 49   | 90   | 35   | 223  | 64   | 105  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 21   | 896  | 173  | 150  | 1063 | 78   | 49   | 90   | 35   | 223  | 64   | 105  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 21   | 896  | 173  | 150  | 1063 | 78   | 49   | 90   | 35   | 223  | 64   | 105  |

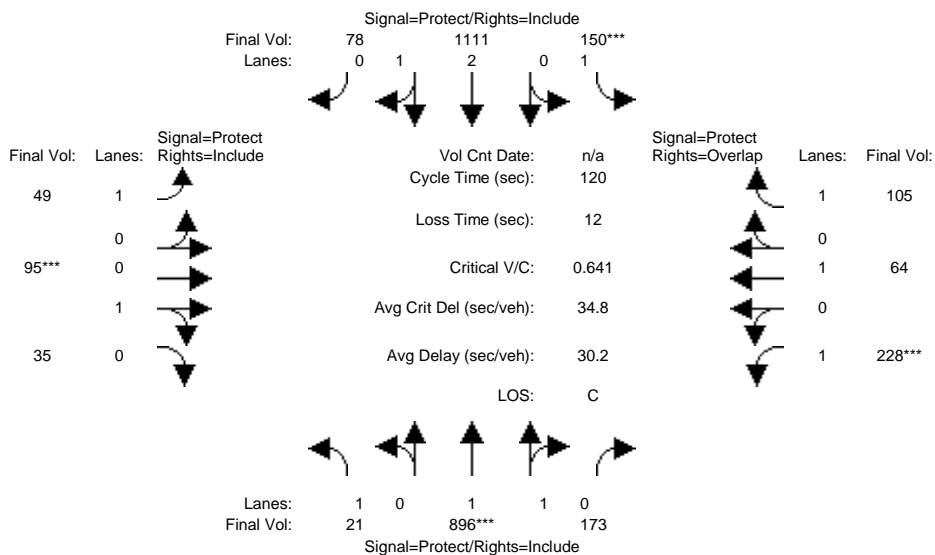
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.67 | 0.33 | 1.00 | 2.79 | 0.21 | 1.00 | 0.72 | 0.28 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 3101 | 599  | 1750 | 5217 | 383  | 1750 | 1296 | 504  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.29 | 0.29 | 0.09 | 0.20 | 0.20 | 0.03 | 0.07 | 0.07 | 0.13 | 0.03 | 0.06 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 15.8 | 54.6 | 54.6 | 16.2 | 55.0 | 55.0 | 15.3 | 13.1 | 13.1 | 24.1 | 21.9 | 38.1 |
| Volume/Cap:               | 0.09 | 0.64 | 0.64 | 0.64 | 0.44 | 0.44 | 0.22 | 0.64 | 0.64 | 0.64 | 0.18 | 0.19 |
| Uniform Del:              | 45.8 | 25.1 | 25.1 | 49.1 | 22.1 | 22.1 | 47.0 | 51.1 | 51.1 | 43.9 | 41.5 | 29.7 |
| IncrcmntDel:              | 0.2  | 0.8  | 0.8  | 5.6  | 0.1  | 0.1  | 0.5  | 6.7  | 6.7  | 3.8  | 0.3  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 46.0 | 25.9 | 25.9 | 54.7 | 22.2 | 22.2 | 47.5 | 57.8 | 57.8 | 47.7 | 41.8 | 29.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 46.0 | 25.9 | 25.9 | 54.7 | 22.2 | 22.2 | 47.5 | 57.8 | 57.8 | 47.7 | 41.8 | 29.9 |
| LOS by Move:              | D    | C    | C    | D-   | C+   | C+   | D    | E+   | E+   | D    | D    | C    |
| HCM2kAvgQ:                | 1    | 15   | 15   | 6    | 9    | 9    | 2    | 6    | 6    | 9    | 2    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P MD

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 21   | 896  | 173  | 150  | 1063 | 78   | 49   | 90   | 35   | 223  | 64   | 105  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 21   | 896  | 173  | 150  | 1063 | 78   | 49   | 90   | 35   | 223  | 64   | 105  |
| Added Vol:     | 0    | 0    | 0    | 0    | 48   | 0    | 0    | 5    | 0    | 5    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 21   | 896  | 173  | 150  | 1111 | 78   | 49   | 95   | 35   | 228  | 64   | 105  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 21   | 896  | 173  | 150  | 1111 | 78   | 49   | 95   | 35   | 228  | 64   | 105  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 21   | 896  | 173  | 150  | 1111 | 78   | 49   | 95   | 35   | 228  | 64   | 105  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 21   | 896  | 173  | 150  | 1111 | 78   | 49   | 95   | 35   | 228  | 64   | 105  |

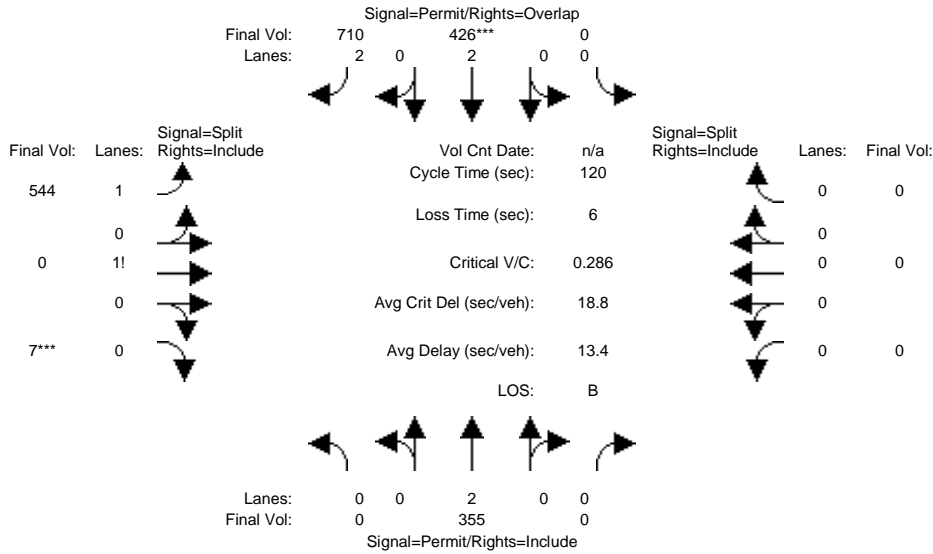
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.67 | 0.33 | 1.00 | 2.80 | 0.20 | 1.00 | 0.73 | 0.27 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 3101 | 599  | 1750 | 5232 | 367  | 1750 | 1315 | 485  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.29 | 0.29 | 0.09 | 0.21 | 0.21 | 0.03 | 0.07 | 0.07 | 0.13 | 0.03 | 0.06 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 15.1 | 54.1 | 54.1 | 16.0 | 55.0 | 55.0 | 15.6 | 13.5 | 13.5 | 24.4 | 22.3 | 38.3 |
| Volume/Cap:               | 0.10 | 0.64 | 0.64 | 0.64 | 0.46 | 0.46 | 0.22 | 0.64 | 0.64 | 0.64 | 0.18 | 0.19 |
| Uniform Del:              | 46.4 | 25.5 | 25.5 | 49.3 | 22.4 | 22.4 | 46.7 | 50.9 | 50.9 | 43.8 | 41.2 | 29.6 |
| IncrcmntDel:              | 0.2  | 0.9  | 0.9  | 5.9  | 0.1  | 0.1  | 0.5  | 6.8  | 6.8  | 3.9  | 0.2  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 46.6 | 26.3 | 26.3 | 55.2 | 22.5 | 22.5 | 47.2 | 57.7 | 57.7 | 47.7 | 41.4 | 29.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 46.6 | 26.3 | 26.3 | 55.2 | 22.5 | 22.5 | 47.2 | 57.7 | 57.7 | 47.7 | 41.4 | 29.7 |
| LOS by Move:              | D    | C    | C    | E+   | C+   | C+   | D    | E+   | E+   | D    | D    | C    |
| HCM2kAvgQ:                | 1    | 15   | 15   | 6    | 10   | 10   | 2    | 6    | 6    | 9    | 2    | 3    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing MD

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Wolfe Rd EB |      |      | Wolfe Rd WB |      |      |
|----------------|------------------|------|------|------------------|------|------|-------------|------|------|-------------|------|------|
| Base Vol:      | 0                | 355  | 0    | 0                | 426  | 710  | 544         | 0    | 7    | 0           | 0    | 0    |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| Initial Bse:   | 0                | 355  | 0    | 0                | 426  | 710  | 544         | 0    | 7    | 0           | 0    | 0    |
| Added Vol:     | 0                | 0    | 0    | 0                | 0    | 0    | 0           | 0    | 0    | 0           | 0    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0           | 0    | 0    | 0           | 0    | 0    |
| Initial Fut:   | 0                | 355  | 0    | 0                | 426  | 710  | 544         | 0    | 7    | 0           | 0    | 0    |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| PHF Volume:    | 0                | 355  | 0    | 0                | 426  | 710  | 544         | 0    | 7    | 0           | 0    | 0    |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0           | 0    | 0    | 0           | 0    | 0    |
| Reduced Vol:   | 0                | 355  | 0    | 0                | 426  | 710  | 544         | 0    | 7    | 0           | 0    | 0    |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| Final Volume:  | 0                | 355  | 0    | 0                | 426  | 710  | 544         | 0    | 7    | 0           | 0    | 0    |

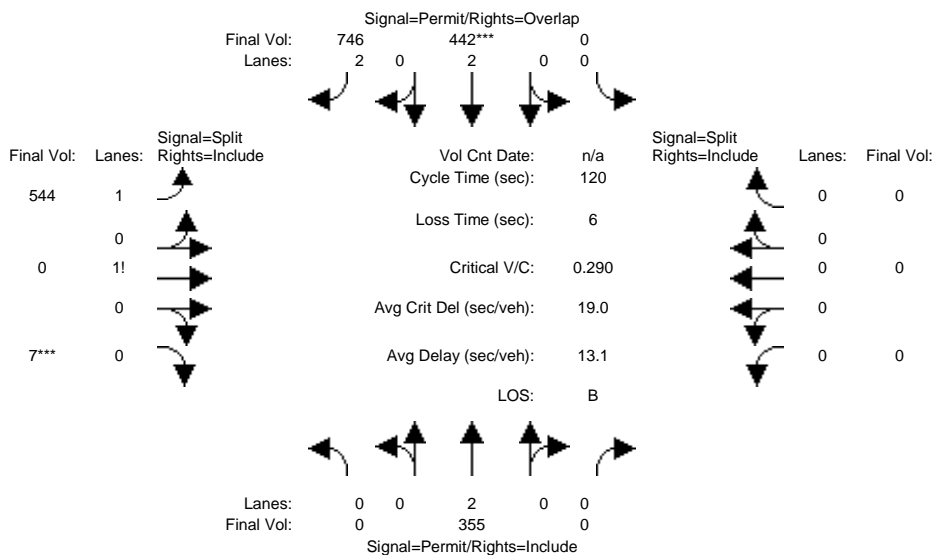
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Wolfe Rd EB |      |      | Wolfe Rd WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|-------------|------|------|-------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 |
| Adjustment:             | 0.92             | 1.00 | 0.92 | 0.92             | 1.00 | 0.83 | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 |
| Lanes:                  | 0.00             | 2.00 | 0.00 | 0.00             | 2.00 | 2.00 | 1.97        | 0.00 | 0.03 | 0.00        | 0.00 | 0.00 |
| Final Sat.:             | 0                | 3800 | 0    | 0                | 3800 | 3150 | 3456        | 0    | 44   | 0           | 0    | 0    |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |       | Wolfe Rd EB |      |      | Wolfe Rd WB |      |      |
|---------------------------|------------------|------|------|------------------|------|-------|-------------|------|------|-------------|------|------|
| Vol/Sat:                  | 0.00             | 0.09 | 0.00 | 0.00             | 0.11 | 0.23  | 0.16        | 0.00 | 0.16 | 0.00        | 0.00 | 0.00 |
| Crit Moves:               |                  |      |      |                  | **** |       |             |      | **** |             |      |      |
| Green Time:               | 0.0              | 47.1 | 0.0  | 0.0              | 47.1 | 114.0 | 66.9        | 0.0  | 66.9 | 0.0         | 0.0  | 0.0  |
| Volume/Cap:               | 0.00             | 0.24 | 0.00 | 0.00             | 0.29 | 0.24  | 0.28        | 0.00 | 0.29 | 0.00        | 0.00 | 0.00 |
| Uniform Del:              | 0.0              | 24.4 | 0.0  | 0.0              | 25.0 | 0.2   | 13.9        | 0.0  | 14.0 | 0.0         | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0              | 0.1  | 0.0  | 0.0              | 0.1  | 0.0   | 0.1         | 0.0  | 0.1  | 0.0         | 0.0  | 0.0  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| Delay Adj:                | 0.00             | 1.00 | 0.00 | 0.00             | 1.00 | 1.00  | 1.00        | 0.00 | 1.00 | 0.00        | 0.00 | 0.00 |
| Delay/Veh:                | 0.0              | 24.5 | 0.0  | 0.0              | 25.1 | 0.2   | 14.0        | 0.0  | 14.0 | 0.0         | 0.0  | 0.0  |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0              | 24.5 | 0.0  | 0.0              | 25.1 | 0.2   | 14.0        | 0.0  | 14.0 | 0.0         | 0.0  | 0.0  |
| LOS by Move:              | A                | C    | A    | A                | C    | A     | B           | A    | B    | A           | A    | A    |
| HCM2kAvgQ:                | 0                | 4    | 0    | 0                | 5    | 1     | 6           | 0    | 6    | 0           | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 355  | 0    | 0    | 426  | 710  | 544  | 0    | 7    | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 355  | 0    | 0    | 426  | 710  | 544  | 0    | 7    | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 16   | 36   | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 355  | 0    | 0    | 442  | 746  | 544  | 0    | 7    | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 355  | 0    | 0    | 442  | 746  | 544  | 0    | 7    | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 355  | 0    | 0    | 442  | 746  | 544  | 0    | 7    | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 355  | 0    | 0    | 442  | 746  | 544  | 0    | 7    | 0    | 0    | 0    |

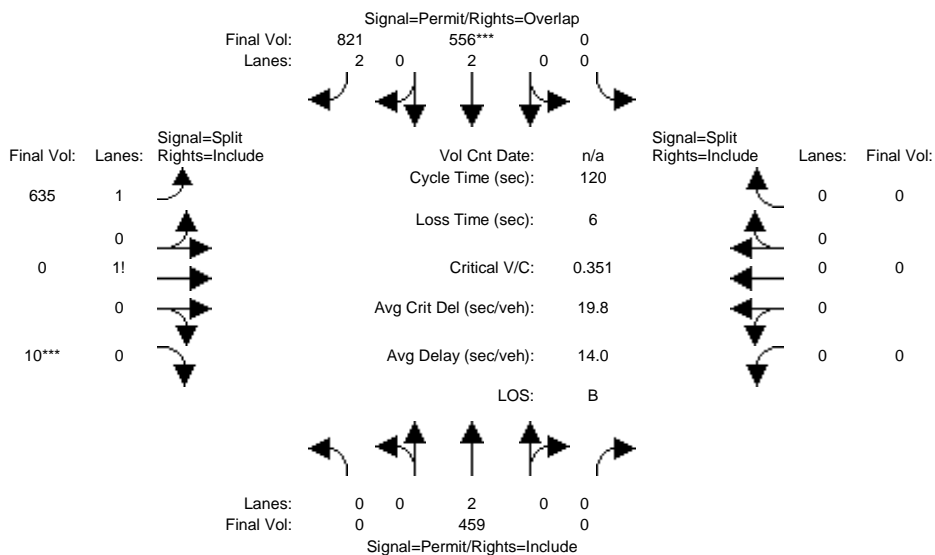
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 1.97 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 3800 | 0    | 0    | 3800 | 3150 | 3456 | 0    | 44   | 0    | 0    | 0    |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.09 | 0.00 | 0.00 | 0.12 | 0.24  | 0.16 | 0.00 | 0.16 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               |      |      |      |      | **** |       |      |      | **** |      |      |      |
| Green Time:               | 0.0  | 48.1 | 0.0  | 0.0  | 48.1 | 114.0 | 65.9 | 0.0  | 65.9 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.23 | 0.00 | 0.00 | 0.29 | 0.25  | 0.29 | 0.00 | 0.29 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 23.8 | 0.0  | 0.0  | 24.4 | 0.2   | 14.5 | 0.0  | 14.5 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.1  | 0.0  | 0.0  | 0.1  | 0.0   | 0.1  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 23.8 | 0.0  | 0.0  | 24.5 | 0.2   | 14.5 | 0.0  | 14.6 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 23.8 | 0.0  | 0.0  | 24.5 | 0.2   | 14.5 | 0.0  | 14.6 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | C    | A    | A    | C    | A     | B    | A    | B    | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 4    | 0    | 0    | 5    | 1     | 6    | 0    | 6    | 0    | 0    | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd MD

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 459  | 0    | 0    | 556  | 821  | 635  | 0    | 10   | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 459  | 0    | 0    | 556  | 821  | 635  | 0    | 10   | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 459  | 0    | 0    | 556  | 821  | 635  | 0    | 10   | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 459  | 0    | 0    | 556  | 821  | 635  | 0    | 10   | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 459  | 0    | 0    | 556  | 821  | 635  | 0    | 10   | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 459  | 0    | 0    | 556  | 821  | 635  | 0    | 10   | 0    | 0    | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 1.97 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 3800 | 0    | 0    | 3800 | 3150 | 3447 | 0    | 53   | 0    | 0    | 0    |

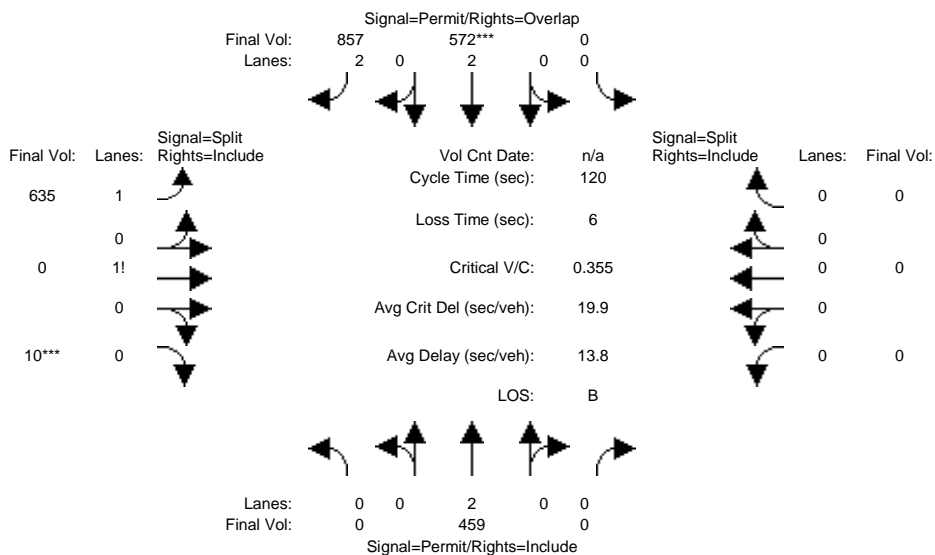
| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.12 | 0.00 | 0.00 | 0.15 | 0.26  | 0.18 | 0.00 | 0.19 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               |      |      |      |      | **** |       |      |      | **** |      |      |      |
| Green Time:               | 0.0  | 50.0 | 0.0  | 0.0  | 50.0 | 114.0 | 64.0 | 0.0  | 64.0 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.29 | 0.00 | 0.00 | 0.35 | 0.27  | 0.35 | 0.00 | 0.35 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 23.2 | 0.0  | 0.0  | 23.9 | 0.2   | 16.0 | 0.0  | 16.1 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.1  | 0.0  | 0.0  | 0.1  | 0.1   | 0.1  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 23.3 | 0.0  | 0.0  | 24.0 | 0.3   | 16.1 | 0.0  | 16.2 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 23.3 | 0.0  | 0.0  | 24.0 | 0.3   | 16.1 | 0.0  | 16.2 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | C    | A    | A    | C    | A     | B    | A    | B    | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 5    | 0    | 0    | 7    | 2     | 7    | 0    | 7    | 0    | 0    | 0    |

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



Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P MD

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 459  | 0    | 0    | 556  | 821  | 635  | 0    | 10   | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 459  | 0    | 0    | 556  | 821  | 635  | 0    | 10   | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 16   | 36   | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 459  | 0    | 0    | 572  | 857  | 635  | 0    | 10   | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 459  | 0    | 0    | 572  | 857  | 635  | 0    | 10   | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 459  | 0    | 0    | 572  | 857  | 635  | 0    | 10   | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 459  | 0    | 0    | 572  | 857  | 635  | 0    | 10   | 0    | 0    | 0    |

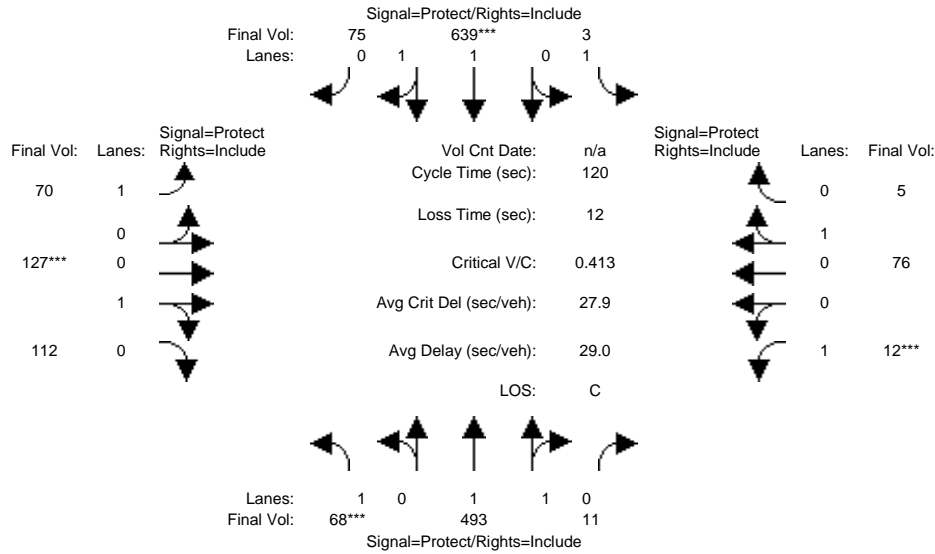
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 1.97 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 3800 | 0    | 0    | 3800 | 3150 | 3447 | 0    | 53   | 0    | 0    | 0    |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.12 | 0.00 | 0.00 | 0.15 | 0.27  | 0.18 | 0.00 | 0.19 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               |      |      |      |      | **** |       |      |      | **** |      |      |      |
| Green Time:               | 0.0  | 50.8 | 0.0  | 0.0  | 50.8 | 114.0 | 63.2 | 0.0  | 63.2 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.29 | 0.00 | 0.00 | 0.36 | 0.29  | 0.35 | 0.00 | 0.36 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 22.7 | 0.0  | 0.0  | 23.5 | 0.2   | 16.5 | 0.0  | 16.5 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.1  | 0.0  | 0.0  | 0.1  | 0.1   | 0.1  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 22.8 | 0.0  | 0.0  | 23.6 | 0.3   | 16.6 | 0.0  | 16.7 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 22.8 | 0.0  | 0.0  | 23.6 | 0.3   | 16.6 | 0.0  | 16.7 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | C+   | A    | A    | C    | A     | B    | A    | B    | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 5    | 0    | 0    | 7    | 2     | 7    | 0    | 7    | 0    | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing MD

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 68   | 493  | 11   | 3    | 639  | 75   | 70   | 127  | 112  | 12   | 76   | 5    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 68   | 493  | 11   | 3    | 639  | 75   | 70   | 127  | 112  | 12   | 76   | 5    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 68   | 493  | 11   | 3    | 639  | 75   | 70   | 127  | 112  | 12   | 76   | 5    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 68   | 493  | 11   | 3    | 639  | 75   | 70   | 127  | 112  | 12   | 76   | 5    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 68   | 493  | 11   | 3    | 639  | 75   | 70   | 127  | 112  | 12   | 76   | 5    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 68   | 493  | 11   | 3    | 639  | 75   | 70   | 127  | 112  | 12   | 76   | 5    |

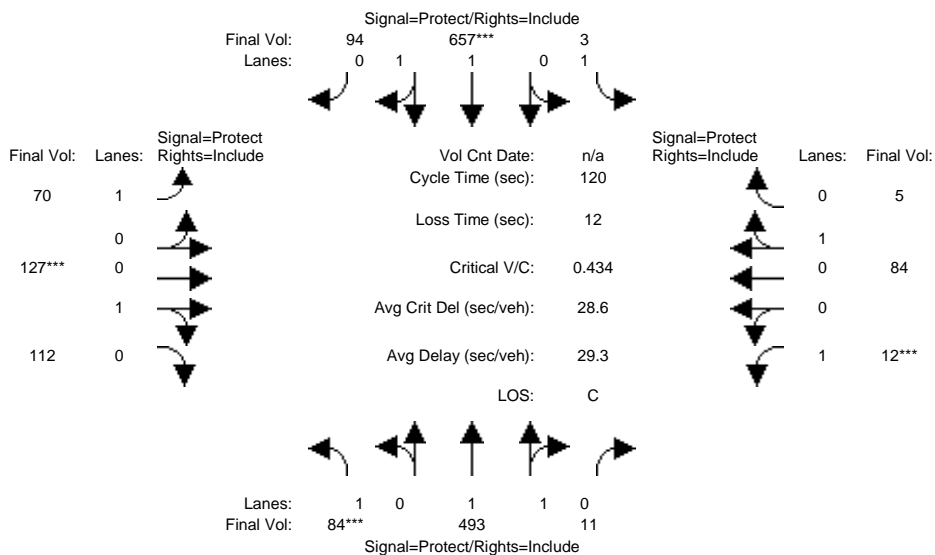
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes:                  | 1.00 | 1.96 | 0.04 | 1.00 | 1.78 | 0.22 | 1.00 | 0.53 | 0.47 | 1.00 | 0.94 | 0.06 |
| Final Sat.:             | 1750 | 3619 | 81   | 1750 | 3311 | 389  | 1750 | 956  | 844  | 1750 | 1689 | 111  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.14 | 0.14 | 0.00 | 0.19 | 0.19 | 0.04 | 0.13 | 0.13 | 0.01 | 0.05 | 0.05 |
| Crit Moves:               | ***  |      |      |      | ***  |      |      | ***  |      |      | ***  |      |
| Green Time:               | 10.8 | 45.0 | 45.0 | 19.3 | 53.5 | 53.5 | 18.0 | 36.8 | 36.8 | 7.0  | 25.8 | 25.8 |
| Volume/Cap:               | 0.43 | 0.36 | 0.36 | 0.01 | 0.43 | 0.43 | 0.27 | 0.43 | 0.43 | 0.12 | 0.21 | 0.21 |
| Uniform Del:              | 51.7 | 27.2 | 27.2 | 42.4 | 22.9 | 22.9 | 45.1 | 33.3 | 33.3 | 53.6 | 38.8 | 38.8 |
| IncrcmntDel:              | 1.9  | 0.2  | 0.2  | 0.0  | 0.2  | 0.2  | 0.5  | 0.5  | 0.5  | 0.5  | 0.3  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 53.6 | 27.3 | 27.3 | 42.4 | 23.0 | 23.0 | 45.7 | 33.8 | 33.8 | 54.1 | 39.0 | 39.0 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 53.6 | 27.3 | 27.3 | 42.4 | 23.0 | 23.0 | 45.7 | 33.8 | 33.8 | 54.1 | 39.0 | 39.0 |
| LOS by Move:              | D-   | C    | C    | D    | C    | C    | D    | C-   | C-   | D-   | D    | D    |
| HCM2kAvgQ:                | 3    | 7    | 7    | 0    | 9    | 9    | 3    | 7    | 7    | 1    | 3    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Maude Ave EB |      |      | Maude Ave WB |      |      |
|----------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Base Vol:      | 68               | 493  | 11   | 3                | 639  | 75   | 70           | 127  | 112  | 12           | 76   | 5    |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Initial Bse:   | 68               | 493  | 11   | 3                | 639  | 75   | 70           | 127  | 112  | 12           | 76   | 5    |
| Added Vol:     | 16               | 0    | 0    | 0                | 18   | 19   | 0            | 0    | 0    | 0            | 8    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0            | 0    | 0    | 0            | 0    | 0    |
| Initial Fut:   | 84               | 493  | 11   | 3                | 657  | 94   | 70           | 127  | 112  | 12           | 84   | 5    |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| PHF Volume:    | 84               | 493  | 11   | 3                | 657  | 94   | 70           | 127  | 112  | 12           | 84   | 5    |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0            | 0    | 0    | 0            | 0    | 0    |
| Reduced Vol:   | 84               | 493  | 11   | 3                | 657  | 94   | 70           | 127  | 112  | 12           | 84   | 5    |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Final Volume:  | 84               | 493  | 11   | 3                | 657  | 94   | 70           | 127  | 112  | 12           | 84   | 5    |

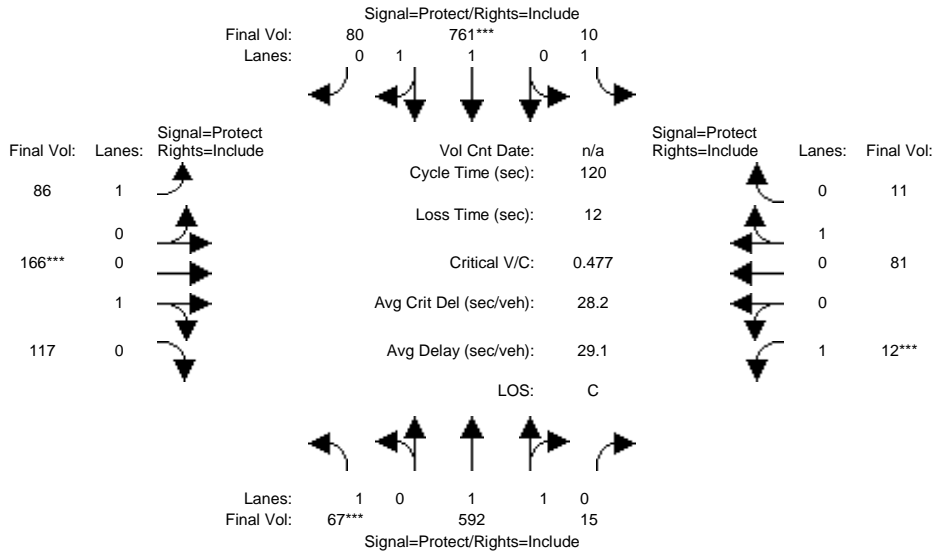
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Maude Ave EB |      |      | Maude Ave WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900         | 1900 | 1900 | 1900         | 1900 | 1900 |
| Adjustment:             | 0.92             | 0.97 | 0.95 | 0.92             | 0.98 | 0.95 | 0.92         | 0.95 | 0.95 | 0.92         | 0.95 | 0.95 |
| Lanes:                  | 1.00             | 1.96 | 0.04 | 1.00             | 1.74 | 0.26 | 1.00         | 0.53 | 0.47 | 1.00         | 0.94 | 0.06 |
| Final Sat.:             | 1750             | 3619 | 81   | 1750             | 3237 | 463  | 1750         | 956  | 844  | 1750         | 1699 | 101  |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Maude Ave EB |      |      | Maude Ave WB |      |      |
|---------------------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Vol/Sat:                  | 0.05             | 0.14 | 0.14 | 0.00             | 0.20 | 0.20 | 0.04         | 0.13 | 0.13 | 0.01         | 0.05 | 0.05 |
| Crit Moves:               | ****             |      |      | ****             |      |      | ****         |      |      | ****         |      |      |
| Green Time:               | 12.6             | 46.3 | 46.3 | 19.8             | 53.4 | 53.4 | 17.3         | 34.9 | 34.9 | 7.0          | 24.7 | 24.7 |
| Volume/Cap:               | 0.46             | 0.35 | 0.35 | 0.01             | 0.46 | 0.46 | 0.28         | 0.46 | 0.46 | 0.12         | 0.24 | 0.24 |
| Uniform Del:              | 50.5             | 26.2 | 26.2 | 41.9             | 23.2 | 23.2 | 45.8         | 34.8 | 34.8 | 53.6         | 39.8 | 39.8 |
| IncrementDel:             | 1.8              | 0.2  | 0.2  | 0.0              | 0.2  | 0.2  | 0.6          | 0.6  | 0.6  | 0.5          | 0.3  | 0.3  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0          | 0.0  | 0.0  | 0.0          | 0.0  | 0.0  |
| Delay Adj:                | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Delay/Veh:                | 52.2             | 26.4 | 26.4 | 41.9             | 23.4 | 23.4 | 46.4         | 35.4 | 35.4 | 54.1         | 40.2 | 40.2 |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| AdjDel/Veh:               | 52.2             | 26.4 | 26.4 | 41.9             | 23.4 | 23.4 | 46.4         | 35.4 | 35.4 | 54.1         | 40.2 | 40.2 |
| LOS by Move:              | D-               | C    | C    | D                | C    | C    | D            | D+   | D+   | D-           | D    | D    |
| HCM2kAvgQ:                | 4                | 7    | 7    | 0                | 10   | 10   | 3            | 8    | 8    | 1            | 3    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 67   | 592  | 15   | 10   | 761  | 80   | 86   | 166  | 117  | 12   | 81   | 11   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 67   | 592  | 15   | 10   | 761  | 80   | 86   | 166  | 117  | 12   | 81   | 11   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 67   | 592  | 15   | 10   | 761  | 80   | 86   | 166  | 117  | 12   | 81   | 11   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 67   | 592  | 15   | 10   | 761  | 80   | 86   | 166  | 117  | 12   | 81   | 11   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 67   | 592  | 15   | 10   | 761  | 80   | 86   | 166  | 117  | 12   | 81   | 11   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 67   | 592  | 15   | 10   | 761  | 80   | 86   | 166  | 117  | 12   | 81   | 11   |

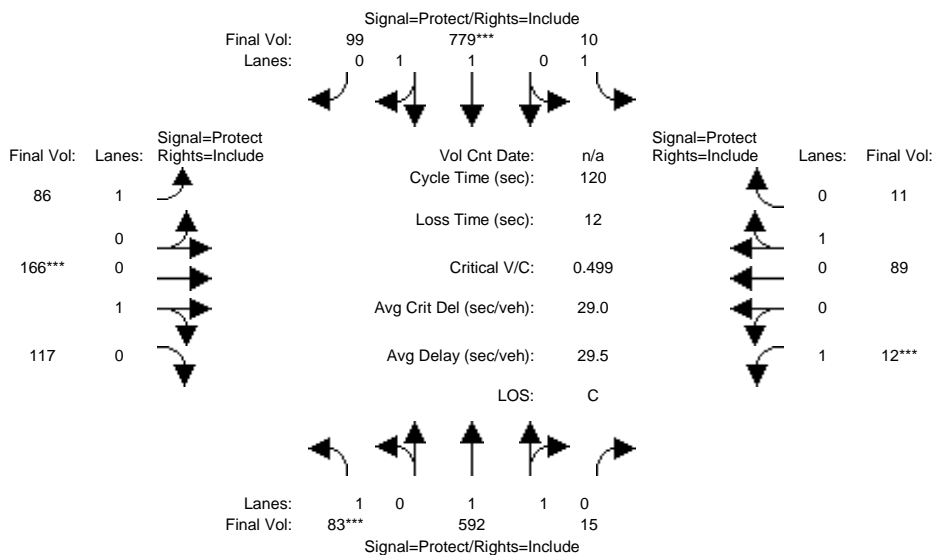
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes:                  | 1.00 | 1.95 | 0.05 | 1.00 | 1.80 | 0.20 | 1.00 | 0.59 | 0.41 | 1.00 | 0.88 | 0.12 |
| Final Sat.:             | 1750 | 3608 | 91   | 1750 | 3348 | 352  | 1750 | 1056 | 744  | 1750 | 1585 | 215  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.04 | 0.16 | 0.16 | 0.01 | 0.23 | 0.23 | 0.05 | 0.16 | 0.16 | 0.01 | 0.05 | 0.05 |
| Crit Moves:               | ***  |      |      |      | ***  |      |      | ***  |      |      | ***  |      |
| Green Time:               | 9.1  | 46.8 | 46.8 | 16.6 | 54.3 | 54.3 | 18.3 | 37.6 | 37.6 | 7.0  | 26.2 | 26.2 |
| Volume/Cap:               | 0.50 | 0.42 | 0.42 | 0.04 | 0.50 | 0.50 | 0.32 | 0.50 | 0.50 | 0.12 | 0.23 | 0.23 |
| Uniform Del:              | 53.2 | 26.7 | 26.7 | 44.8 | 23.3 | 23.3 | 45.3 | 33.6 | 33.6 | 53.6 | 38.6 | 38.6 |
| IncrcmntDel:              | 3.0  | 0.2  | 0.2  | 0.1  | 0.2  | 0.2  | 0.7  | 0.7  | 0.7  | 0.5  | 0.3  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 56.3 | 26.9 | 26.9 | 44.8 | 23.5 | 23.5 | 46.0 | 34.3 | 34.3 | 54.1 | 38.9 | 38.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 56.3 | 26.9 | 26.9 | 44.8 | 23.5 | 23.5 | 46.0 | 34.3 | 34.3 | 54.1 | 38.9 | 38.9 |
| LOS by Move:              | E+   | C    | C    | D    | C    | C    | D    | C-   | C-   | D-   | D+   | D+   |
| HCM2kAvgQ:                | 3    | 8    | 8    | 0    | 11   | 11   | 3    | 9    | 9    | 1    | 3    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P MD

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 67   | 592  | 15   | 10   | 761  | 80   | 86   | 166  | 117  | 12   | 81   | 11   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 67   | 592  | 15   | 10   | 761  | 80   | 86   | 166  | 117  | 12   | 81   | 11   |
| Added Vol:     | 16   | 0    | 0    | 0    | 18   | 19   | 0    | 0    | 0    | 0    | 8    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 83   | 592  | 15   | 10   | 779  | 99   | 86   | 166  | 117  | 12   | 89   | 11   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 83   | 592  | 15   | 10   | 779  | 99   | 86   | 166  | 117  | 12   | 89   | 11   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 83   | 592  | 15   | 10   | 779  | 99   | 86   | 166  | 117  | 12   | 89   | 11   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 83   | 592  | 15   | 10   | 779  | 99   | 86   | 166  | 117  | 12   | 89   | 11   |

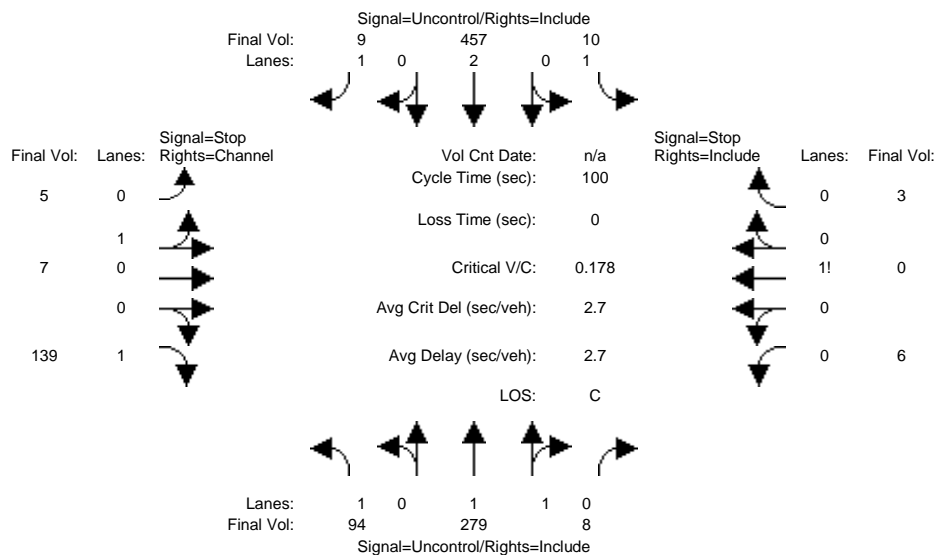
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes:                  | 1.00 | 1.95 | 0.05 | 1.00 | 1.77 | 0.23 | 1.00 | 0.59 | 0.41 | 1.00 | 0.89 | 0.11 |
| Final Sat.:             | 1750 | 3608 | 91   | 1750 | 3282 | 417  | 1750 | 1056 | 744  | 1750 | 1602 | 198  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.05 | 0.16 | 0.16 | 0.01 | 0.24 | 0.24 | 0.05 | 0.16 | 0.16 | 0.01 | 0.06 | 0.06 |
| Crit Moves:               | ***  |      |      |      | **** |      |      | **** |      |      | **** |      |
| Green Time:               | 10.8 | 48.0 | 48.0 | 17.1 | 54.2 | 54.2 | 17.7 | 35.9 | 35.9 | 7.0  | 25.3 | 25.3 |
| Volume/Cap:               | 0.53 | 0.41 | 0.41 | 0.04 | 0.53 | 0.53 | 0.33 | 0.53 | 0.53 | 0.12 | 0.26 | 0.26 |
| Uniform Del:              | 52.1 | 25.8 | 25.8 | 44.4 | 23.6 | 23.6 | 45.9 | 34.9 | 34.9 | 53.6 | 39.6 | 39.6 |
| IncrcmntDel:              | 3.2  | 0.2  | 0.2  | 0.1  | 0.3  | 0.3  | 0.8  | 1.0  | 1.0  | 0.5  | 0.4  | 0.4  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 55.4 | 26.0 | 26.0 | 44.5 | 23.9 | 23.9 | 46.6 | 35.9 | 35.9 | 54.1 | 40.0 | 40.0 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 55.4 | 26.0 | 26.0 | 44.5 | 23.9 | 23.9 | 46.6 | 35.9 | 35.9 | 54.1 | 40.0 | 40.0 |
| LOS by Move:              | E+   | C    | C    | D    | C    | C    | D    | D+   | D+   | D-   | D    | D    |
| HCM2kAvgQ:                | 4    | 8    | 8    | 0    | 12   | 12   | 3    | 9    | 9    | 1    | 3    | 3    |

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

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 12 columns representing movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #22 Wolfe Rd & Maude Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 94 279 8     | 10 457 9     | 5 7 139    | 6 0 3      |
| ApproachDel: | xxxxxx       | xxxxxx       | 11.4       | 16.8       |

Approach[eastbound][lanes=2][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.5]  
 FAIL - Vehicle-hours less than 5 for two or more lane approach.  
 Signal Warrant Rule #2: [approach volume=151]  
 SUCCEED - Approach volume >= 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1017]  
 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=0.0]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=9]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1017]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 94 279 8     | 10 457 9     | 5 7 139    | 6 0 3      |

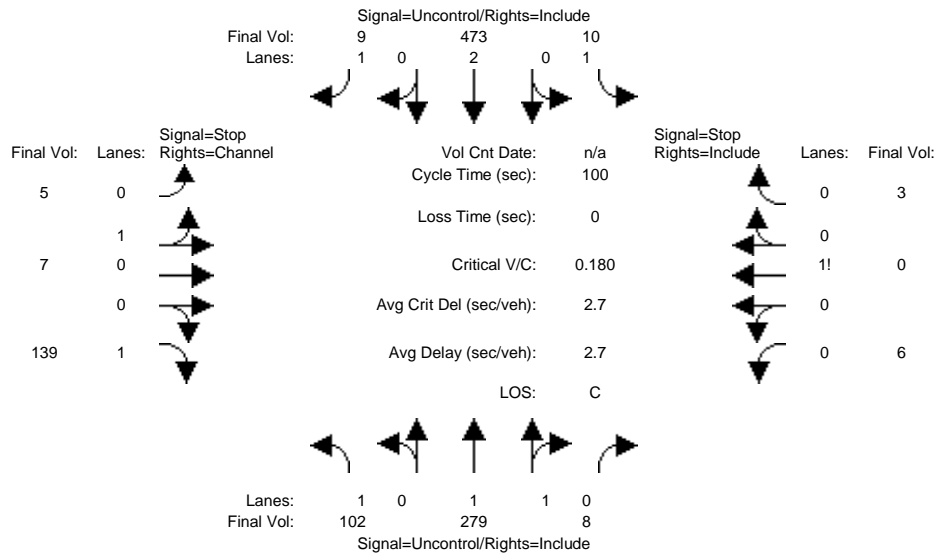
Major Street Volume: 857  
 Minor Approach Volume: 151  
 Minor Approach Volume Threshold: 440

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Existing+P MD

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 94   | 279  | 8    | 10   | 457  | 9    | 5    | 7    | 139  | 6    | 0    | 3    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 94   | 279  | 8    | 10   | 457  | 9    | 5    | 7    | 139  | 6    | 0    | 3    |
| Added Vol:     | 8    | 0    | 0    | 0    | 16   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 102  | 279  | 8    | 10   | 473  | 9    | 5    | 7    | 139  | 6    | 0    | 3    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 102  | 279  | 8    | 10   | 473  | 9    | 5    | 7    | 139  | 6    | 0    | 3    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume:   | 102  | 279  | 8    | 10   | 473  | 9    | 5    | 7    | 139  | 6    | 0    | 3    |

| Critical Gap Module: |     |      |        |     |      |        |     |     |     |     |     |     |
|----------------------|-----|------|--------|-----|------|--------|-----|-----|-----|-----|-----|-----|
| Critical Gp:         | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim:         | 2.2 | xxxx | xxxxxx | 2.2 | xxxx | xxxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |

| Capacity Module: |      |      |        |      |      |        |      |      |      |      |      |      |
|------------------|------|------|--------|------|------|--------|------|------|------|------|------|------|
| Cnflct Vol:      | 482  | xxxx | xxxxxx | 287  | xxxx | xxxxxx | 837  | 984  | 237  | 747  | 989  | 144  |
| Potent Cap.:     | 1091 | xxxx | xxxxxx | 1287 | xxxx | xxxxxx | 263  | 250  | 771  | 305  | 249  | 884  |
| Move Cap.:       | 1091 | xxxx | xxxxxx | 1287 | xxxx | xxxxxx | 242  | 225  | 771  | 226  | 224  | 884  |
| Volume/Cap:      | 0.09 | xxxx | xxxx   | 0.01 | xxxx | xxxx   | 0.02 | 0.03 | 0.18 | 0.03 | 0.00 | 0.00 |

| Level Of Service Module: |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:               | 0.3           | xxxx          | xxxxxx        | 0.0           | xxxx          | xxxxxx        | xxxx          | xxxx          | 0.7           | xxxx          | xxxx          | xxxxxx        |
| Control Del:             | 8.6           | xxxx          | xxxxxx        | 7.8           | xxxx          | xxxxxx        | xxxxxx        | xxxx          | 10.7          | xxxxxx        | xxxx          | xxxxxx        |
| LOS by Move:             | A             | *             | *             | A             | *             | *             | B             | *             | B             | *             | *             | *             |
| Movement:                | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.:             | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        | 232           | xxxx          | xxxxxx        | xxxx          | 300           | xxxxxx        |
| SharedQueue:             | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | 0.2           | xxxx          | xxxxxx        | xxxxxx        | 0.1           | xxxxxx        |
| Shrd ConDel:             | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | 21.4          | xxxx          | xxxxxx        | xxxxxx        | 17.4          | xxxxxx        |
| Shared LOS:              | *             | *             | *             | *             | *             | *             | C             | *             | *             | *             | C             | *             |
| ApproachDel:             | xxxxxxx       |               | xxxxxxx       |               |               |               | 11.5          |               |               |               | 17.4          |               |
| ApproachLOS:             | *             |               | *             |               |               |               | B             |               |               |               | C             |               |

Note: Queue reported is the number of cars per lane.  
 Peak Hour Delay Signal Warrant Report  
 \*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 102 279 8    | 10 473 9     | 5 7 139    | 6 0 3      |
| ApproachDel: | xxxxxx       | xxxxxx       | 11.5       | 17.4       |

Approach[eastbound][lanes=2][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.5]  
 FAIL - Vehicle-hours less than 5 for two or more lane approach.  
 Signal Warrant Rule #2: [approach volume=151]  
 SUCCEED - Approach volume >= 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1041]  
 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=0.0]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=9]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1041]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 102 279 8    | 10 473 9     | 5 7 139    | 6 0 3      |

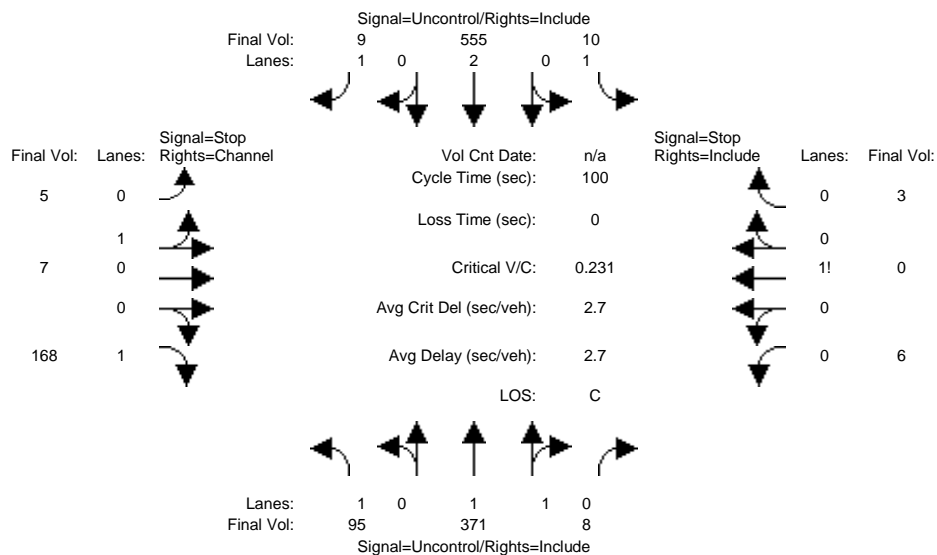
Major Street Volume: 881  
 Minor Approach Volume: 151  
 Minor Approach Volume Threshold: 429

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd MD

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 12 columns representing movements and 2 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 4 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 6 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #22 Wolfe Rd & Maude Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 95 371 8     | 10 555 9     | 5 7 168    | 6 0 3      |
| ApproachDel: | xxxxxx       | xxxxxx       | 12.4       | 21.0       |

Approach[eastbound][lanes=2][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.6]  
 FAIL - Vehicle-hours less than 5 for two or more lane approach.  
 Signal Warrant Rule #2: [approach volume=180]  
 SUCCEED - Approach volume >= 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1237]  
 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=0.1]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=9]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1237]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 95 371 8     | 10 555 9     | 5 7 168    | 6 0 3      |

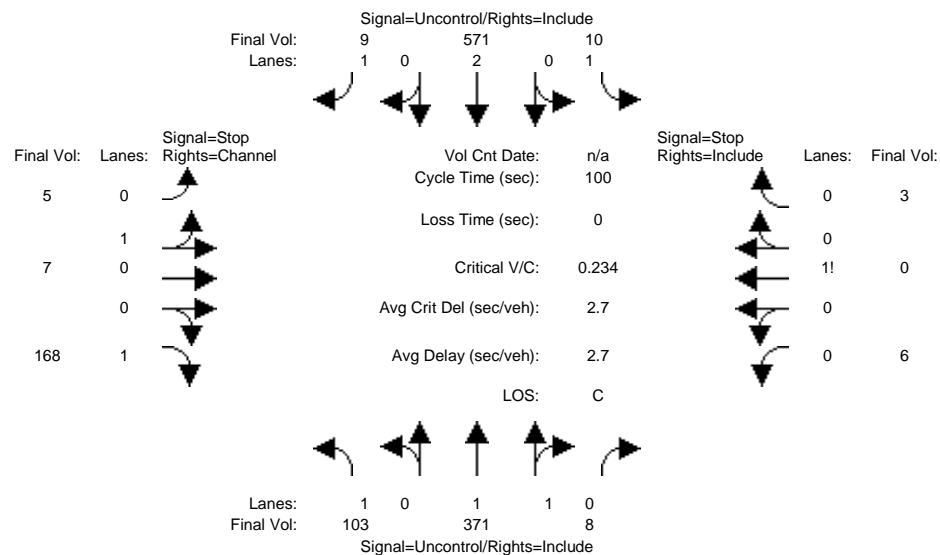
Major Street Volume: 1048  
 Minor Approach Volume: 180  
 Minor Approach Volume Threshold: 354

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM Unsignalized (Future Volume Alternative)  
 Bkgd+P MD

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                | 95   | 371  | 8    | 10   | 555  | 9    | 5    | 7    | 168  | 6    | 0    | 3    |
| Base Vol:      | 95   | 371  | 8    | 10   | 555  | 9    | 5    | 7    | 168  | 6    | 0    | 3    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 95   | 371  | 8    | 10   | 555  | 9    | 5    | 7    | 168  | 6    | 0    | 3    |
| Added Vol:     | 8    | 0    | 0    | 0    | 16   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 103  | 371  | 8    | 10   | 571  | 9    | 5    | 7    | 168  | 6    | 0    | 3    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 103  | 371  | 8    | 10   | 571  | 9    | 5    | 7    | 168  | 6    | 0    | 3    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume:   | 103  | 371  | 8    | 10   | 571  | 9    | 5    | 7    | 168  | 6    | 0    | 3    |

| Critical Gap Module: |     |      |        |     |      |        |     |     |     |     |     |     |
|----------------------|-----|------|--------|-----|------|--------|-----|-----|-----|-----|-----|-----|
| Critical Gp:         | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim:         | 2.2 | xxxx | xxxxxx | 2.2 | xxxx | xxxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |

| Capacity Module: |      |      |        |      |      |        |      |      |      |      |      |      |
|------------------|------|------|--------|------|------|--------|------|------|------|------|------|------|
| Cnflct Vol:      | 580  | xxxx | xxxxxx | 379  | xxxx | xxxxxx | 983  | 1176 | 286  | 890  | 1181 | 190  |
| Potent Cap.:     | 1004 | xxxx | xxxxxx | 1191 | xxxx | xxxxxx | 206  | 193  | 717  | 241  | 192  | 826  |
| Move Cap.:       | 1004 | xxxx | xxxxxx | 1191 | xxxx | xxxxxx | 188  | 172  | 717  | 164  | 170  | 826  |
| Volume/Cap:      | 0.10 | xxxx | xxxx   | 0.01 | xxxx | xxxx   | 0.03 | 0.04 | 0.23 | 0.04 | 0.00 | 0.00 |

| Level Of Service Module: |               |               |               |               |               |               |               |               |               |               |               |               |
|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:               | 0.3           | xxxx          | xxxxxx        | 0.0           | xxxx          | xxxxxx        | xxxx          | xxxx          | 0.9           | xxxx          | xxxx          | xxxxxx        |
| Control Del:             | 9.0           | xxxx          | xxxxxx        | 8.0           | xxxx          | xxxxxx        | xxxxxx        | xxxx          | 11.5          | xxxxxx        | xxxx          | xxxxxx        |
| LOS by Move:             | A             | *             | *             | A             | *             | *             | *             | *             | B             | *             | *             | *             |
| Movement:                | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.:             | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        | 178           | xxxx          | xxxxxx        | xxxx          | 223           | xxxxxx        |
| SharedQueue:             | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | 0.2           | xxxx          | xxxxxx        | xxxxxx        | 0.1           | xxxxxx        |
| Shrd ConDel:             | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | 26.7          | xxxx          | xxxxxx        | xxxxxx        | 21.8          | xxxxxx        |
| Shared LOS:              | *             | *             | *             | *             | *             | *             | D             | *             | *             | *             | C             | *             |
| ApproachDel:             | xxxxxxx       |               |               | xxxxxxx       |               |               | 12.6          |               |               | 21.8          |               |               |
| ApproachLOS:             | *             |               |               | *             |               |               | B             |               |               | C             |               |               |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 103 371 8    | 10 571 9     | 5 7 168    | 6 0 3      |
| ApproachDel: | xxxxxx       | xxxxxx       | 12.6       | 21.8       |

Approach[eastbound][lanes=2][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.6]  
 FAIL - Vehicle-hours less than 5 for two or more lane approach.  
 Signal Warrant Rule #2: [approach volume=180]  
 SUCCEED - Approach volume >= 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1261]  
 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=0.1]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=9]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1261]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 103 371 8    | 10 571 9     | 5 7 168    | 6 0 3      |

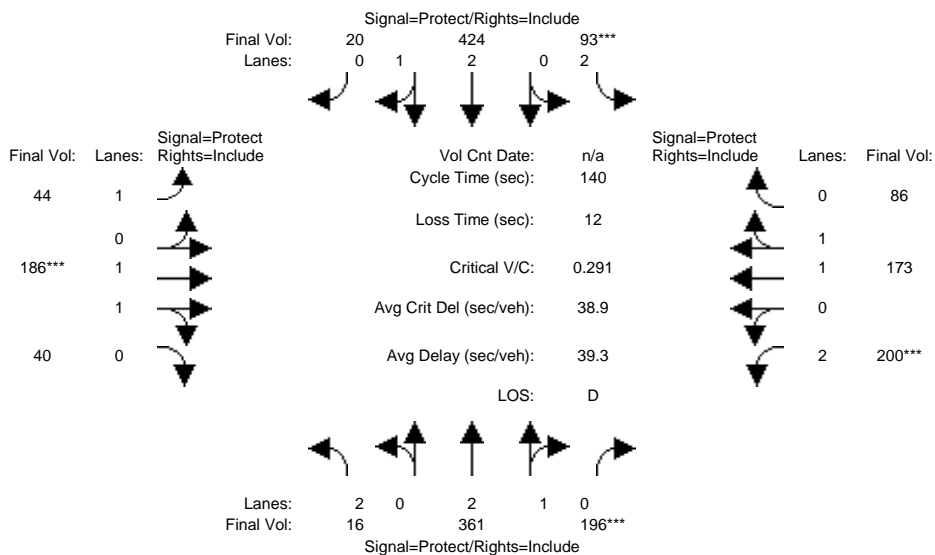
Major Street Volume: 1072  
 Minor Approach Volume: 180  
 Minor Approach Volume Threshold: 344

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing MD

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 16   | 361  | 196  | 93   | 424  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 16   | 361  | 196  | 93   | 424  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 16   | 361  | 196  | 93   | 424  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 16   | 361  | 196  | 93   | 424  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 16   | 361  | 196  | 93   | 424  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 16   | 361  | 196  | 93   | 424  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |

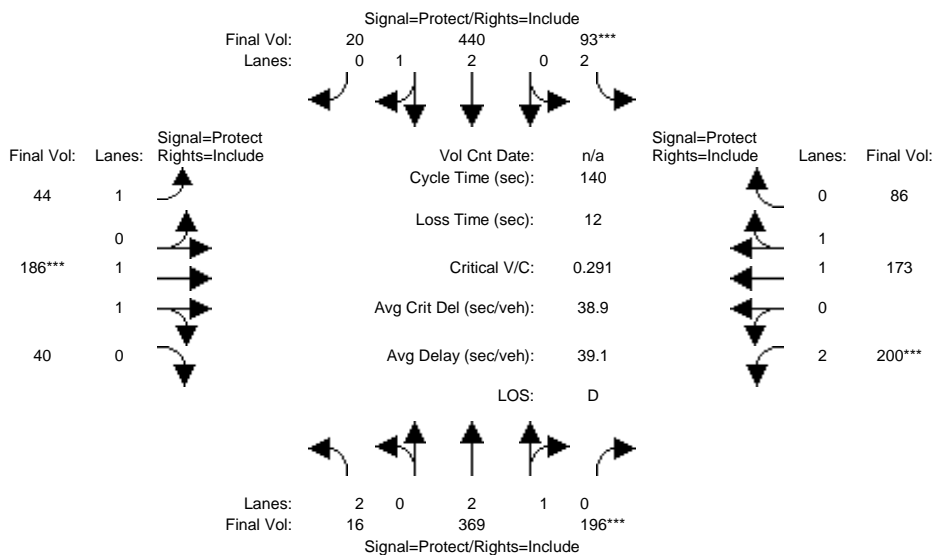
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.00 | 1.00 | 2.00 | 2.86 | 0.14 | 1.00 | 1.64 | 0.36 | 2.00 | 1.32 | 0.68 |
| Final Sat.:             | 3150 | 3800 | 1750 | 3150 | 5347 | 252  | 1750 | 3045 | 655  | 3150 | 2471 | 1228 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.10 | 0.11 | 0.03 | 0.08 | 0.08 | 0.03 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 |
| Crit Moves:               |      |      | **** | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 26.3 | 53.9 | 53.9 | 14.2 | 41.7 | 41.7 | 24.7 | 29.4 | 29.4 | 30.5 | 35.3 | 35.3 |
| Volume/Cap:               | 0.03 | 0.25 | 0.29 | 0.29 | 0.27 | 0.27 | 0.14 | 0.29 | 0.29 | 0.29 | 0.28 | 0.28 |
| Uniform Del:              | 46.4 | 29.3 | 29.8 | 58.2 | 37.4 | 37.4 | 48.7 | 46.5 | 46.5 | 45.7 | 42.1 | 42.1 |
| IncrcmntDel:              | 0.0  | 0.1  | 0.1  | 0.5  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 46.4 | 29.3 | 29.9 | 58.7 | 37.5 | 37.5 | 48.9 | 46.8 | 46.8 | 45.9 | 42.3 | 42.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 46.4 | 29.3 | 29.9 | 58.7 | 37.5 | 37.5 | 48.9 | 46.8 | 46.8 | 45.9 | 42.3 | 42.3 |
| LOS by Move:              | D    | C    | C    | E+   | D+   | D+   | D    | D    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 0    | 5    | 6    | 2    | 5    | 5    | 2    | 4    | 4    | 4    | 5    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 16   | 361  | 196  | 93   | 424  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 16   | 361  | 196  | 93   | 424  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| Added Vol:     | 0    | 8    | 0    | 0    | 16   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 16   | 369  | 196  | 93   | 440  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 16   | 369  | 196  | 93   | 440  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 16   | 369  | 196  | 93   | 440  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 16   | 369  | 196  | 93   | 440  | 20   | 44   | 186  | 40   | 200  | 173  | 86   |

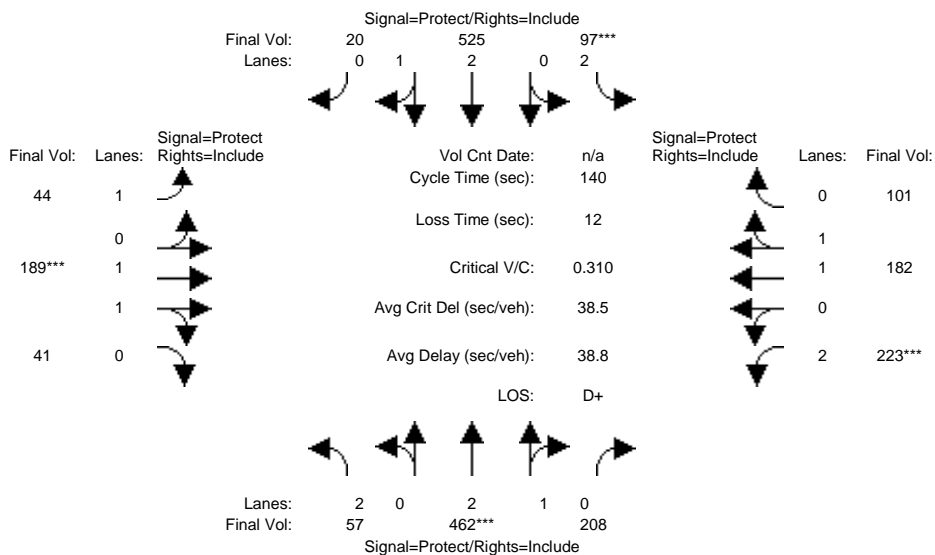
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.00 | 1.00 | 2.00 | 2.86 | 0.14 | 1.00 | 1.64 | 0.36 | 2.00 | 1.32 | 0.68 |
| Final Sat.:             | 3150 | 3800 | 1750 | 3150 | 5356 | 243  | 1750 | 3045 | 655  | 3150 | 2471 | 1228 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.10 | 0.11 | 0.03 | 0.08 | 0.08 | 0.03 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 |
| Crit Moves:               |      |      | **** | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 25.8 | 53.9 | 53.9 | 14.2 | 42.3 | 42.3 | 24.7 | 29.4 | 29.4 | 30.5 | 35.3 | 35.3 |
| Volume/Cap:               | 0.03 | 0.25 | 0.29 | 0.29 | 0.27 | 0.27 | 0.14 | 0.29 | 0.29 | 0.29 | 0.28 | 0.28 |
| Uniform Del:              | 46.9 | 29.3 | 29.8 | 58.2 | 37.1 | 37.1 | 48.7 | 46.5 | 46.5 | 45.7 | 42.1 | 42.1 |
| IncrcmntDel:              | 0.0  | 0.1  | 0.1  | 0.5  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 46.9 | 29.4 | 29.9 | 58.7 | 37.2 | 37.2 | 48.9 | 46.8 | 46.8 | 45.9 | 42.3 | 42.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 46.9 | 29.4 | 29.9 | 58.7 | 37.2 | 37.2 | 48.9 | 46.8 | 46.8 | 45.9 | 42.3 | 42.3 |
| LOS by Move:              | D    | C    | C    | E+   | D+   | D+   | D    | D    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 0    | 5    | 6    | 2    | 5    | 5    | 2    | 4    | 4    | 4    | 5    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 57   | 462  | 208  | 97   | 525  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 57   | 462  | 208  | 97   | 525  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 57   | 462  | 208  | 97   | 525  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 57   | 462  | 208  | 97   | 525  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 57   | 462  | 208  | 97   | 525  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 57   | 462  | 208  | 97   | 525  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 1.00 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.03 | 0.97 | 2.00 | 2.89 | 0.11 | 1.00 | 1.63 | 0.37 | 2.00 | 1.27 | 0.73 |
| Final Sat.:             | 3150 | 3859 | 1737 | 3150 | 5394 | 205  | 1750 | 3040 | 659  | 3150 | 2379 | 1320 |

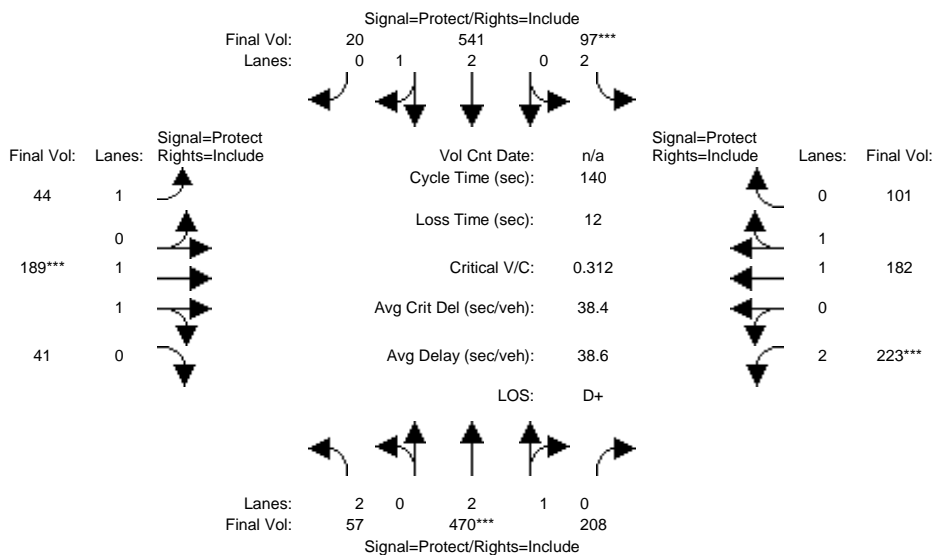
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.12 | 0.12 | 0.03 | 0.10 | 0.10 | 0.03 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 23.1 | 54.1 | 54.1 | 13.9 | 44.9 | 44.9 | 23.7 | 28.1 | 28.1 | 32.0 | 36.3 | 36.3 |
| Volume/Cap:               | 0.11 | 0.31 | 0.31 | 0.31 | 0.30 | 0.30 | 0.15 | 0.31 | 0.31 | 0.31 | 0.30 | 0.30 |
| Uniform Del:              | 49.7 | 30.0 | 30.0 | 58.6 | 35.8 | 35.8 | 49.5 | 47.7 | 47.7 | 44.9 | 41.6 | 41.6 |
| IncrcmntDel:              | 0.1  | 0.1  | 0.1  | 0.6  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 49.8 | 30.1 | 30.1 | 59.2 | 35.9 | 35.9 | 49.8 | 47.9 | 47.9 | 45.1 | 41.8 | 41.8 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 49.8 | 30.1 | 30.1 | 59.2 | 35.9 | 35.9 | 49.8 | 47.9 | 47.9 | 45.1 | 41.8 | 41.8 |
| LOS by Move:              | D    | C    | C    | E+   | D+   | D+   | D    | D    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 1    | 6    | 6    | 2    | 6    | 6    | 2    | 4    | 4    | 5    | 5    | 5    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P MD

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 57   | 462  | 208  | 97   | 525  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 57   | 462  | 208  | 97   | 525  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| Added Vol:     | 0    | 8    | 0    | 0    | 16   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 57   | 470  | 208  | 97   | 541  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 57   | 470  | 208  | 97   | 541  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 57   | 470  | 208  | 97   | 541  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 57   | 470  | 208  | 97   | 541  | 20   | 44   | 189  | 41   | 223  | 182  | 101  |

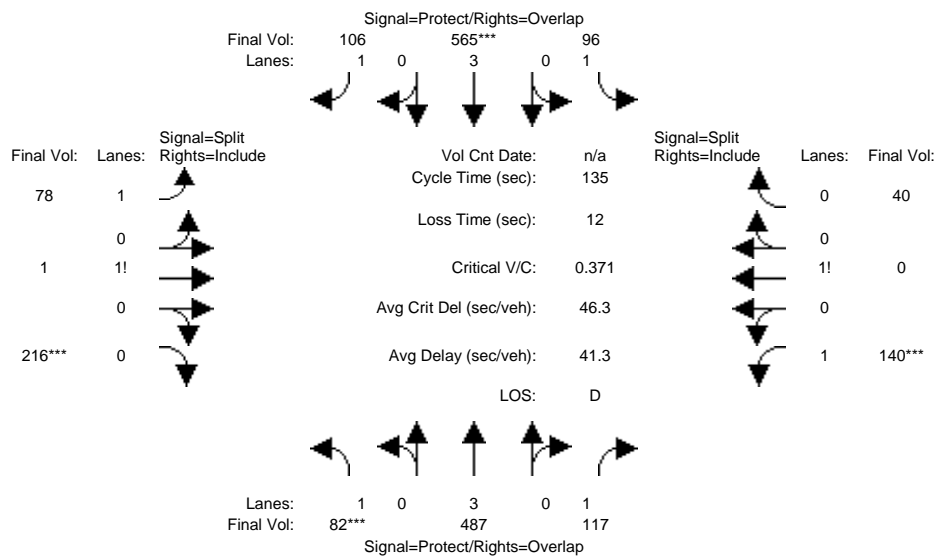
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 1.00 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.05 | 0.95 | 2.00 | 2.89 | 0.11 | 1.00 | 1.63 | 0.37 | 2.00 | 1.27 | 0.73 |
| Final Sat.:             | 3150 | 3880 | 1717 | 3150 | 5400 | 200  | 1750 | 3040 | 659  | 3150 | 2379 | 1320 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.12 | 0.12 | 0.03 | 0.10 | 0.10 | 0.03 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 22.7 | 54.4 | 54.4 | 13.8 | 45.5 | 45.5 | 23.6 | 27.9 | 27.9 | 31.8 | 36.1 | 36.1 |
| Volume/Cap:               | 0.11 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.15 | 0.31 | 0.31 | 0.31 | 0.30 | 0.30 |
| Uniform Del:              | 50.0 | 29.8 | 29.8 | 58.7 | 35.4 | 35.4 | 49.6 | 47.8 | 47.8 | 45.0 | 41.7 | 41.7 |
| IncrcmntDel:              | 0.1  | 0.1  | 0.1  | 0.6  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  | 0.3  | 0.2  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 50.1 | 29.8 | 29.8 | 59.2 | 35.5 | 35.5 | 49.9 | 48.1 | 48.1 | 45.2 | 41.9 | 41.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 50.1 | 29.8 | 29.8 | 59.2 | 35.5 | 35.5 | 49.9 | 48.1 | 48.1 | 45.2 | 41.9 | 41.9 |
| LOS by Move:              | D    | C    | C    | E+   | D+   | D+   | D    | D    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 1    | 7    | 7    | 2    | 6    | 6    | 2    | 4    | 4    | 5    | 5    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing MD

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 82   | 487  | 117  | 96   | 565  | 106  | 78   | 1    | 216  | 140  | 0    | 40   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 82   | 487  | 117  | 96   | 565  | 106  | 78   | 1    | 216  | 140  | 0    | 40   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 82   | 487  | 117  | 96   | 565  | 106  | 78   | 1    | 216  | 140  | 0    | 40   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 82   | 487  | 117  | 96   | 565  | 106  | 78   | 1    | 216  | 140  | 0    | 40   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 82   | 487  | 117  | 96   | 565  | 106  | 78   | 1    | 216  | 140  | 0    | 40   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 82   | 487  | 117  | 96   | 565  | 106  | 78   | 1    | 216  | 140  | 0    | 40   |

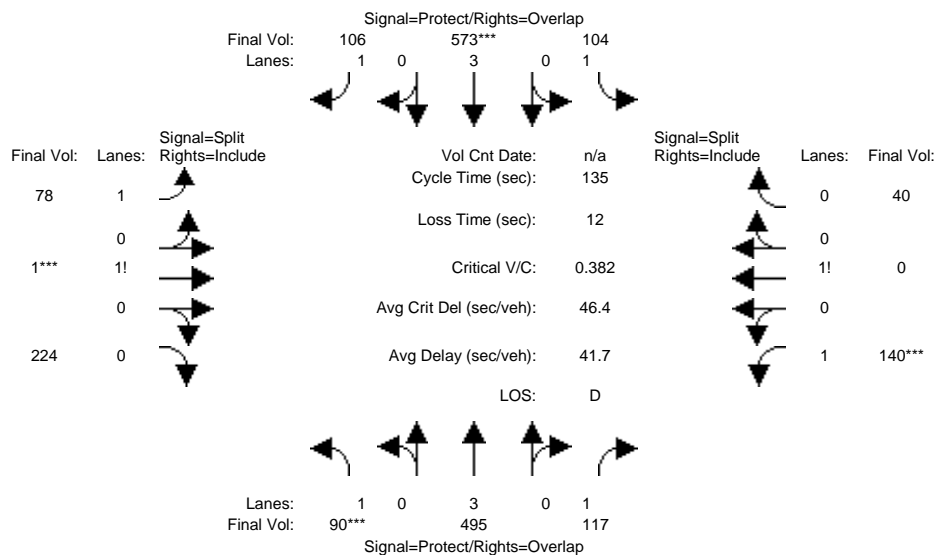
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.15 | 0.01 | 0.84 | 1.64 | 0.00 | 0.36 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2023 | 7    | 1512 | 2864 | 0    | 636  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.05 | 0.09 | 0.07 | 0.05 | 0.10 | 0.06 | 0.04 | 0.14 | 0.14 | 0.05 | 0.00 | 0.06 |
| Crit Moves:               | ***  |      |      | **** |      |      |      |      | **** | **** |      |      |
| Green Time:               | 40.0 | 40.8 | 57.9 | 15.0 | 27.0 | 65.9 | 38.9 | 38.9 | 38.9 | 17.1 | 0.0  | 17.1 |
| Volume/Cap:               | 0.16 | 0.28 | 0.16 | 0.49 | 0.50 | 0.12 | 0.13 | 0.50 | 0.50 | 0.39 | 0.00 | 0.50 |
| Uniform Del:              | 35.1 | 35.9 | 23.6 | 56.4 | 48.0 | 18.8 | 35.6 | 39.9 | 39.9 | 54.1 | 0.0  | 54.9 |
| IncrcmntDel:              | 0.1  | 0.1  | 0.1  | 2.0  | 0.3  | 0.1  | 0.0  | 0.7  | 0.7  | 0.5  | 0.0  | 1.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 35.2 | 36.0 | 23.7 | 58.4 | 48.3 | 18.9 | 35.6 | 40.6 | 40.6 | 54.6 | 0.0  | 56.0 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 35.2 | 36.0 | 23.7 | 58.4 | 48.3 | 18.9 | 35.6 | 40.6 | 40.6 | 54.6 | 0.0  | 56.0 |
| LOS by Move:              | D+   | D+   | C    | E+   | D    | B-   | D+   | D    | D    | D-   | A    | E+   |
| HCM2kAvgQ:                | 3    | 5    | 3    | 4    | 7    | 2    | 2    | 9    | 9    | 4    | 0    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P MD

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 82          | 487  | 117  | 96          | 565  | 106  | 78         | 1    | 216  | 140        | 0    | 40   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 82          | 487  | 117  | 96          | 565  | 106  | 78         | 1    | 216  | 140        | 0    | 40   |
| Added Vol:     | 8           | 8    | 0    | 8           | 8    | 0    | 0          | 0    | 8    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 90          | 495  | 117  | 104         | 573  | 106  | 78         | 1    | 224  | 140        | 0    | 40   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 90          | 495  | 117  | 104         | 573  | 106  | 78         | 1    | 224  | 140        | 0    | 40   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 90          | 495  | 117  | 104         | 573  | 106  | 78         | 1    | 224  | 140        | 0    | 40   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 90          | 495  | 117  | 104         | 573  | 106  | 78         | 1    | 224  | 140        | 0    | 40   |

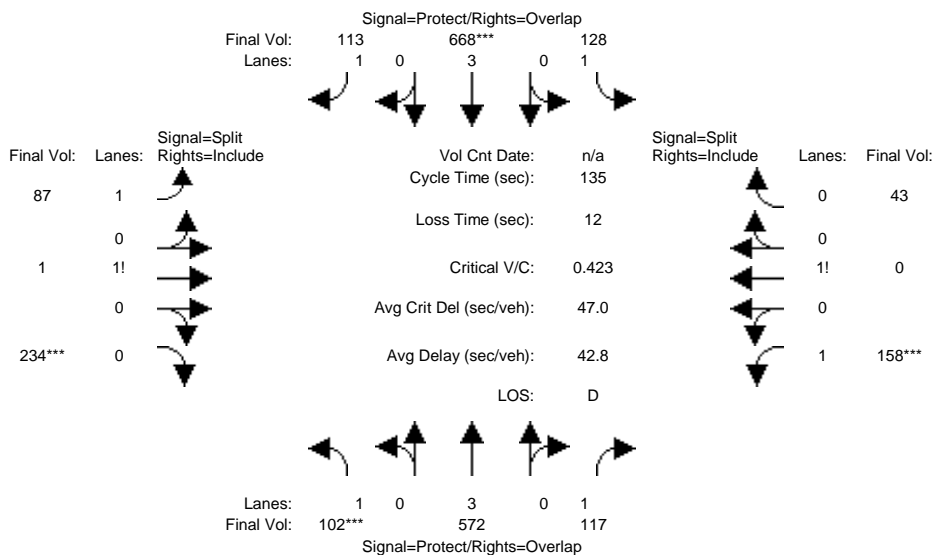
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 0.95 | 0.95 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 1.15       | 0.01 | 0.84 | 1.64       | 0.00 | 0.36 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 2015       | 7    | 1521 | 2864       | 0    | 636  |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.05        | 0.09 | 0.07 | 0.06        | 0.10 | 0.06 | 0.04       | 0.15 | 0.15 | 0.05       | 0.00 | 0.06 |
| Crit Moves:               | ***         |      |      | ****        |      |      | ****       |      |      | ****       |      |      |
| Green Time:               | 40.0        | 39.7 | 56.5 | 15.0        | 26.9 | 66.2 | 39.3       | 39.3 | 39.3 | 16.8       | 0.0  | 16.8 |
| Volume/Cap:               | 0.17        | 0.30 | 0.16 | 0.53        | 0.51 | 0.12 | 0.13       | 0.51 | 0.51 | 0.39       | 0.00 | 0.51 |
| Uniform Del:              | 35.2        | 36.8 | 24.5 | 56.7        | 48.2 | 18.7 | 35.2       | 39.7 | 39.7 | 54.4       | 0.0  | 55.2 |
| IncrcmntDel:              | 0.2         | 0.1  | 0.1  | 2.9         | 0.4  | 0.1  | 0.0        | 0.7  | 0.7  | 0.6        | 0.0  | 1.2  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 0.00 | 1.00 |
| Delay/Veh:                | 35.4        | 36.9 | 24.6 | 59.6        | 48.5 | 18.7 | 35.3       | 40.4 | 40.4 | 55.0       | 0.0  | 56.4 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 35.4        | 36.9 | 24.6 | 59.6        | 48.5 | 18.7 | 35.3       | 40.4 | 40.4 | 55.0       | 0.0  | 56.4 |
| LOS by Move:              | D+          | D+   | C    | E+          | D    | B-   | D+         | D    | D    | D-         | A    | E+   |
| HCM2kAvgQ:                | 3           | 5    | 3    | 4           | 7    | 2    | 2          | 10   | 10   | 4          | 0    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd MD

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Approach:    |             |     |     |             |     |     |                     |     |     |            |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 102  | 572  | 117  | 128  | 668  | 113  | 87   | 1    | 234  | 158  | 0    | 43   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 102  | 572  | 117  | 128  | 668  | 113  | 87   | 1    | 234  | 158  | 0    | 43   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 102  | 572  | 117  | 128  | 668  | 113  | 87   | 1    | 234  | 158  | 0    | 43   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 102  | 572  | 117  | 128  | 668  | 113  | 87   | 1    | 234  | 158  | 0    | 43   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 102  | 572  | 117  | 128  | 668  | 113  | 87   | 1    | 234  | 158  | 0    | 43   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 102  | 572  | 117  | 128  | 668  | 113  | 87   | 1    | 234  | 158  | 0    | 43   |

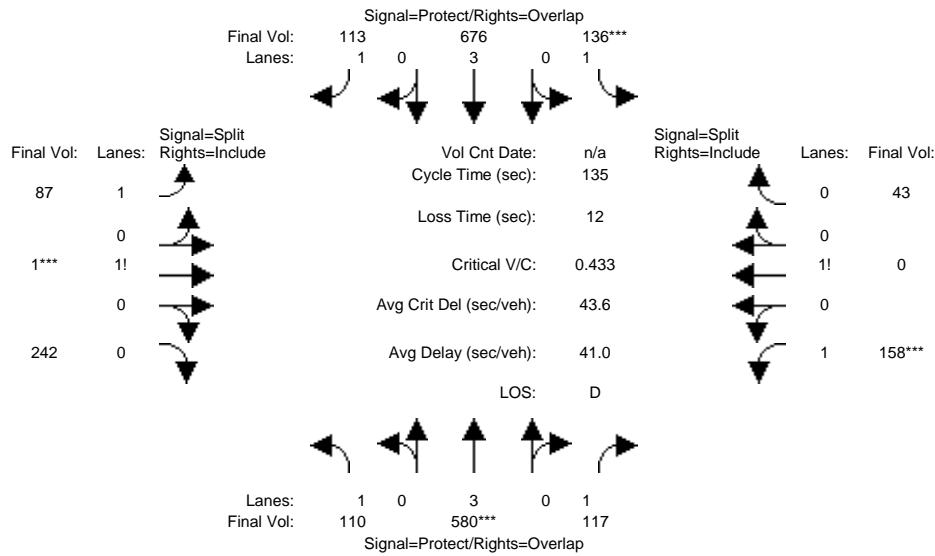
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.16 | 0.01 | 0.83 | 1.65 | 0.00 | 0.35 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2030 | 6    | 1506 | 2883 | 0    | 617  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.06 | 0.10 | 0.07 | 0.07 | 0.12 | 0.06 | 0.04 | 0.16 | 0.16 | 0.05 | 0.00 | 0.07 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      | **** | **** |      |      |
| Green Time:               | 40.0 | 39.6 | 56.5 | 15.0 | 28.4 | 66.1 | 37.7 | 37.7 | 37.7 | 16.9 | 0.0  | 16.9 |
| Volume/Cap:               | 0.20 | 0.34 | 0.16 | 0.66 | 0.56 | 0.13 | 0.15 | 0.56 | 0.56 | 0.44 | 0.00 | 0.56 |
| Uniform Del:              | 35.5 | 37.5 | 24.5 | 57.5 | 47.7 | 18.8 | 36.6 | 41.5 | 41.5 | 54.6 | 0.0  | 55.5 |
| IncrcmntDel:              | 0.2  | 0.1  | 0.1  | 8.0  | 0.6  | 0.1  | 0.0  | 1.2  | 1.2  | 0.7  | 0.0  | 1.9  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 35.7 | 37.6 | 24.6 | 65.6 | 48.2 | 18.9 | 36.7 | 42.7 | 42.7 | 55.3 | 0.0  | 57.5 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 35.7 | 37.6 | 24.6 | 65.6 | 48.2 | 18.9 | 36.7 | 42.7 | 42.7 | 55.3 | 0.0  | 57.5 |
| LOS by Move:              | D+   | D+   | C    | E    | D    | B-   | D+   | D    | D    | E+   | A    | E+   |
| HCM2kAvgQ:                | 3    | 6    | 3    | 6    | 8    | 3    | 2    | 11   | 11   | 4    | 0    | 6    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P MD

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 102  | 572  | 117  | 128  | 668  | 113  | 87   | 1    | 234  | 158  | 0    | 43   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 102  | 572  | 117  | 128  | 668  | 113  | 87   | 1    | 234  | 158  | 0    | 43   |
| Added Vol:     | 8    | 8    | 0    | 8    | 8    | 0    | 0    | 0    | 8    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 110  | 580  | 117  | 136  | 676  | 113  | 87   | 1    | 242  | 158  | 0    | 43   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 110  | 580  | 117  | 136  | 676  | 113  | 87   | 1    | 242  | 158  | 0    | 43   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 110  | 580  | 117  | 136  | 676  | 113  | 87   | 1    | 242  | 158  | 0    | 43   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 110  | 580  | 117  | 136  | 676  | 113  | 87   | 1    | 242  | 158  | 0    | 43   |

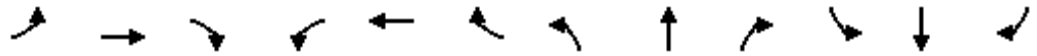
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.15 | 0.01 | 0.84 | 1.65 | 0.00 | 0.35 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 2022 | 6    | 1514 | 2883 | 0    | 617  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.06 | 0.10 | 0.07 | 0.08 | 0.12 | 0.06 | 0.04 | 0.16 | 0.16 | 0.05 | 0.00 | 0.07 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 40.0 | 33.2 | 55.9 | 15.0 | 31.5 | 83.6 | 52.1 | 52.1 | 52.1 | 22.7 | 0.0  | 22.7 |
| Volume/Cap:               | 0.21 | 0.41 | 0.16 | 0.70 | 0.51 | 0.10 | 0.11 | 0.41 | 0.41 | 0.33 | 0.00 | 0.41 |
| Uniform Del:              | 35.7 | 42.8 | 24.8 | 57.8 | 45.0 | 10.5 | 26.6 | 30.3 | 30.3 | 49.4 | 0.0  | 50.2 |
| IncrcmntDel:              | 0.2  | 0.2  | 0.1  | 10.8 | 0.3  | 0.0  | 0.0  | 0.4  | 0.4  | 0.3  | 0.0  | 0.6  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 35.9 | 43.0 | 24.9 | 68.6 | 45.4 | 10.5 | 26.6 | 30.6 | 30.6 | 49.7 | 0.0  | 50.8 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 35.9 | 43.0 | 24.9 | 68.6 | 45.4 | 10.5 | 26.6 | 30.6 | 30.6 | 49.7 | 0.0  | 50.8 |
| LOS by Move:              | D+   | D    | C    | E    | D    | B+   | C    | C    | C    | D    | A    | D    |
| HCM2kAvgQ:                | 4    | 7    | 3    | 6    | 8    | 2    | 2    | 9    | 9    | 4    | 0    | 5    |

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

HCM Signalized Intersection Capacity Analysis  
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp




























12/19/2017



| Movement                          | EBL  | EBT  | EBR    | WBL   | WBT                       | WBR  | NBL   | NBT   | NBR  | SBL  | SBT   | SBR  |  |
|-----------------------------------|------|------|--------|-------|---------------------------|------|-------|-------|------|------|-------|------|--|
| Lane Configurations               |      |      |        | ↖     | ↖                         | ↖    | ↖     | ↑↑↑   |      |      | ↑↑↑   | ↗    |  |
| Traffic Volume (vph)              | 0    | 0    | 0      | 541   | 31                        | 39   | 86    | 524   | 0    | 0    | 1610  | 558  |  |
| Future Volume (vph)               | 0    | 0    | 0      | 541   | 31                        | 39   | 86    | 524   | 0    | 0    | 1610  | 558  |  |
| Ideal Flow (vphpl)                | 1900 | 1900 | 1900   | 1900  | 1900                      | 1900 | 1900  | 1900  | 1900 | 1900 | 1900  | 1900 |  |
| Total Lost time (s)               |      |      |        | 4.9   | 4.9                       | 4.9  | 5.3   | 5.3   |      |      | 5.3   |      |  |
| Lane Util. Factor                 |      |      |        | 0.95  | 0.95                      | 1.00 | 1.00  | 0.86  |      |      | 0.86  |      |  |
| Frbp, ped/bikes                   |      |      |        | 1.00  | 1.00                      | 1.00 | 1.00  | 1.00  |      |      | 1.00  |      |  |
| Flpb, ped/bikes                   |      |      |        | 1.00  | 1.00                      | 1.00 | 1.00  | 1.00  |      |      | 1.00  |      |  |
| Frt                               |      |      |        | 1.00  | 1.00                      | 0.85 | 1.00  | 1.00  |      |      | 0.96  |      |  |
| Flt Protected                     |      |      |        | 0.95  | 0.96                      | 1.00 | 0.95  | 1.00  |      |      | 1.00  |      |  |
| Satd. Flow (prot)                 |      |      |        | 1681  | 1694                      | 1583 | 1770  | 6408  |      |      | 6160  |      |  |
| Flt Permitted                     |      |      |        | 0.95  | 0.96                      | 1.00 | 0.95  | 1.00  |      |      | 1.00  |      |  |
| Satd. Flow (perm)                 |      |      |        | 1681  | 1694                      | 1583 | 1770  | 6408  |      |      | 6160  |      |  |
| Peak-hour factor, PHF             | 1.00 | 1.00 | 1.00   | 1.00  | 1.00                      | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 |  |
| Adj. Flow (vph)                   | 0    | 0    | 0      | 541   | 31                        | 39   | 86    | 524   | 0    | 0    | 1610  | 558  |  |
| RTOR Reduction (vph)              | 0    | 0    | 0      | 0     | 0                         | 31   | 0     | 0     | 0    | 0    | 44    | 0    |  |
| Lane Group Flow (vph)             | 0    | 0    | 0      | 287   | 285                       | 8    | 86    | 524   | 0    | 0    | 2124  | 0    |  |
| Confl. Peds. (#/hr)               |      |      |        |       |                           |      |       |       | 9    |      |       |      |  |
| Turn Type                         |      |      |        | Split | NA                        | Perm | Prot  | NA    |      |      | NA    |      |  |
| Protected Phases                  |      |      |        | 8     | 8                         |      | 5     | 2     |      |      | 6     |      |  |
| Permitted Phases                  |      |      |        |       |                           | 8    |       |       |      |      |       |      |  |
| Actuated Green, G (s)             |      |      |        | 27.1  | 27.1                      | 27.1 | 17.7  | 102.7 |      |      | 79.7  |      |  |
| Effective Green, g (s)            |      |      |        | 27.1  | 27.1                      | 27.1 | 17.7  | 102.7 |      |      | 79.7  |      |  |
| Actuated g/C Ratio                |      |      |        | 0.19  | 0.19                      | 0.19 | 0.13  | 0.73  |      |      | 0.57  |      |  |
| Clearance Time (s)                |      |      |        | 4.9   | 4.9                       | 4.9  | 5.3   | 5.3   |      |      | 5.3   |      |  |
| Vehicle Extension (s)             |      |      |        | 3.0   | 3.0                       | 3.0  | 3.0   | 3.0   |      |      | 3.0   |      |  |
| Lane Grp Cap (vph)                |      |      |        | 325   | 327                       | 306  | 223   | 4700  |      |      | 3506  |      |  |
| v/s Ratio Prot                    |      |      |        | c0.17 | 0.17                      |      | c0.05 | 0.08  |      |      | c0.34 |      |  |
| v/s Ratio Perm                    |      |      |        |       |                           | 0.00 |       |       |      |      |       |      |  |
| v/c Ratio                         |      |      |        | 0.88  | 0.87                      | 0.02 | 0.39  | 0.11  |      |      | 0.61  |      |  |
| Uniform Delay, d1                 |      |      |        | 54.9  | 54.8                      | 45.7 | 56.2  | 5.4   |      |      | 19.8  |      |  |
| Progression Factor                |      |      |        | 1.00  | 1.00                      | 1.00 | 1.20  | 0.53  |      |      | 0.30  |      |  |
| Incremental Delay, d2             |      |      |        | 27.5  | 25.8                      | 0.1  | 4.9   | 0.0   |      |      | 0.5   |      |  |
| Delay (s)                         |      |      |        | 82.4  | 80.6                      | 45.9 | 72.4  | 2.9   |      |      | 6.5   |      |  |
| Level of Service                  |      |      |        | F     | F                         | D    | E     | A     |      |      | A     |      |  |
| Approach Delay (s)                |      | 0.0  |        |       | 79.2                      |      |       | 12.7  |      |      | 6.5   |      |  |
| Approach LOS                      |      | A    |        |       | E                         |      |       | B     |      |      | A     |      |  |
| <b>Intersection Summary</b>       |      |      |        |       |                           |      |       |       |      |      |       |      |  |
| HCM 2000 Control Delay            |      |      | 20.7   |       | HCM 2000 Level of Service |      |       |       |      |      | C     |      |  |
| HCM 2000 Volume to Capacity ratio |      |      | 0.63   |       |                           |      |       |       |      |      |       |      |  |
| Actuated Cycle Length (s)         |      |      | 140.0  |       | Sum of lost time (s)      |      |       |       |      | 15.5 |       |      |  |
| Intersection Capacity Utilization |      |      | 105.7% |       | ICU Level of Service      |      |       |       |      | G    |       |      |  |
| Analysis Period (min)             |      |      | 15     |       |                           |      |       |       |      |      |       |      |  |
| c Critical Lane Group             |      |      |        |       |                           |      |       |       |      |      |       |      |  |

HCM Signalized Intersection Capacity Analysis  
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

























12/19/2017

|                                   |    |    |  |  |  |  |  |    |  |    |    |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |   |   |   |   |   |  |     |  |   |     |   |      |
| Traffic Volume (vph)              | 130   | 0   | 135   | 0   | 0   | 0   | 0  | 480   | 641   | 347   | 1804  | 0   |      |
| Future Volume (vph)               | 130   | 0   | 135   | 0   | 0   | 0   | 0  | 480   | 641   | 347   | 1804  | 0   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Lane Util. Factor                 | 0.91  | 0.91  |   |   |   |   |  | 0.81  | 1.00  | 1.00  | 0.91  |   |      |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 0.99  | 1.00  | 1.00  |   |      |
| Flpb, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 1.00  | 1.00  |   |      |
| Frt                               | 1.00  | 0.86  |   |   |   |   |  | 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)                 | 3221  | 1457  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Flt Permitted                     | 0.95  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 3221  | 1457  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |      |
| Adj. Flow (vph)                   | 130   | 0   | 135   | 0   | 0   | 0   | 0  | 480   | 641   | 347   | 1804  | 0   |      |
| RTOR Reduction (vph)              | 0   | 59  | 0   | 0   | 0   | 0   | 0  | 0   | 364   | 0   | 0   | 0   |      |
| Lane Group Flow (vph)             | 117   | 89  | 0   | 0   | 0   | 0   | 0  | 480   | 277   | 347   | 1804  | 0   |      |
| Confl. Bikes (#/hr)               |   |   |   |   |   |   |  |   | 5   |   |   |   |      |
| Turn Type                         | Split   | NA  |   |   |   |   |  | NA  | Perm  | Prot  | NA  |   |      |
| Protected Phases                  | 4   | 4   |   |   |   |   |  | 2   |   | 1   | 6   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   | 2   |   |   |   |      |
| Actuated Green, G (s)             | 30.1  | 30.1  |   |   |   |   |  | 54.7  | 54.7  | 36.7  | 97.7  |   |      |
| Effective Green, g (s)            | 30.1  | 30.1  |   |   |   |   |  | 54.7  | 54.7  | 36.7  | 97.7  |   |      |
| Actuated g/C Ratio                | 0.22  | 0.22  |   |   |   |   |  | 0.39  | 0.39  | 0.26  | 0.70  |   |      |
| Clearance Time (s)                | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Vehicle Extension (s)             | 3.0   | 3.0   |   |   |   |   |  | 3.0   | 3.0   | 3.0   | 3.0   |   |      |
| Lane Grp Cap (vph)                | 692   | 313   |   |   |   |   |  | 2947  | 609   | 463   | 3548  |   |      |
| v/s Ratio Prot                    | 0.04  | c0.06   |   |   |   |   |  | 0.06  |   | c0.20   | c0.35   |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   | 0.18  |   |   |   |      |
| v/c Ratio                         | 0.17  | 0.28  |   |   |   |   |  | 0.16  | 0.46  | 0.75  | 0.51  |   |      |
| Uniform Delay, d1                 | 44.8  | 45.9  |   |   |   |   |  | 27.8  | 31.6  | 47.4  | 9.9   |   |      |
| Progression Factor                | 1.00  | 1.00  |   |   |   |   |  | 1.31  | 8.90  | 0.69  | 0.86  |   |      |
| Incremental Delay, d2             | 0.5   | 2.3   |   |   |   |   |  | 0.0   | 0.5   | 8.6   | 0.4   |   |      |
| Delay (s)                         | 45.3  | 48.2  |   |   |   |   |  | 36.5  | 281.8   | 41.5  | 8.9   |   |      |
| Level of Service                  | D   | D   |   |   |   |   |  | D   | F   | D   | A   |   |      |
| Approach Delay (s)                |   | 46.9  |   |   | 0.0   |   |  | 176.8   |   |   | 14.2  |   |      |
| Approach LOS                      |   | D   |   |   | A   |   |  | F   |   |   | B   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 68.2  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | E    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.54  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 140.0   |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 18.5 |
| Intersection Capacity Utilization |   |   | 105.7%  |   |   |   |  |   |   |   |   | ICU Level of Service  | G    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |
| c                                 | Critical Lane Group   |   |   |   |   |   |  |   |   |   |   |   |      |

HCM Signalized Intersection Capacity Analysis

3: Mathilda Ave & Ross Dr

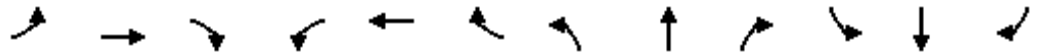
12/19/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |  |  |  |  |  |  |  |  |  |  |  |  |      |
| Traffic Volume (vph)              | 70  | 39  | 129   | 125   | 4   | 71  | 59  | 980   | 323   | 190   | 1695  | 54  |      |
| Future Volume (vph)               | 70  | 39  | 129   | 125   | 4   | 71  | 59  | 980   | 323   | 190   | 1695  | 54  |      |
| 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   | 5.3   |   | 4.0   | 5.3   |   |      |
| Lane Util. Factor                 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 0.81  |   | 1.00  | 0.91  |   |      |
| Frbp, ped/bikes                   | 1.00  | 1.00  | 0.98  | 1.00  | 1.00  | 1.00  | 1.00  | 0.99  |   | 1.00  | 1.00  |   |      |
| Flpb, ped/bikes                   | 1.00  | 1.00  | 1.00  | 0.99  | 1.00  | 1.00  | 1.00  | 1.00  |   | 1.00  | 1.00  |   |      |
| Frt                               | 1.00  | 1.00  | 0.85  | 1.00  | 1.00  | 0.85  | 1.00  | 0.96  |   | 1.00  | 1.00  |   |      |
| Flt Protected                     | 0.95  | 1.00  | 1.00  | 0.95  | 1.00  | 1.00  | 0.95  | 1.00  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 1770  | 1863  | 1555  | 1760  | 1863  | 1583  | 1770  | 7205  |   | 1770  | 5062  |   |      |
| Flt Permitted                     | 0.76  | 1.00  | 1.00  | 0.73  | 1.00  | 1.00  | 0.95  | 1.00  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 1407  | 1863  | 1555  | 1355  | 1863  | 1583  | 1770  | 7205  |   | 1770  | 5062  |   |      |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |      |
| Adj. Flow (vph)                   | 70  | 39  | 129   | 125   | 4   | 71  | 59  | 980   | 323   | 190   | 1695  | 54  |      |
| RTOR Reduction (vph)              | 0   | 0   | 91  | 0   | 0   | 50  | 0   | 61  | 0   | 0   | 3   | 0   |      |
| Lane Group Flow (vph)             | 70  | 39  | 38  | 125   | 4   | 21  | 59  | 1242  | 0   | 190   | 1746  | 0   |      |
| Confl. Peds. (#/hr)               |   |   | 5   | 5   |   |   |   |   | 5   |   |   |   |      |
| Turn Type                         | Perm  | NA  | Perm  | Perm  | NA  | Perm  | Prot  | NA  |   | Prot  | NA  |   |      |
| Protected Phases                  |   | 4   |   |   | 8   |   | 5   | 2   |   | 1   |   | 6   |      |
| Permitted Phases                  | 4   |   | 4   | 8   |   | 8   |   |   |   |   |   |   |      |
| Actuated Green, G (s)             | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 19.0  | 35.3  |   | 50.4  | 66.7  |   |      |
| Effective Green, g (s)            | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 19.0  | 35.3  |   | 50.4  | 66.7  |   |      |
| Actuated g/C Ratio                | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.14  | 0.25  |   | 0.36  | 0.48  |   |      |
| Clearance Time (s)                | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 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 Grp Cap (vph)                | 412   | 545   | 455   | 396   | 545   | 463   | 240   | 1816  |   | 637   | 2411  |   |      |
| v/s Ratio Prot                    |   | 0.02  |   |   | 0.00  |   | 0.03  | c0.17   |   | 0.11  | c0.35   |   |      |
| v/s Ratio Perm                    | 0.05  |   | 0.02  | c0.09   |   | 0.01  |   |   |   |   |   |   |      |
| v/c Ratio                         | 0.17  | 0.07  | 0.08  | 0.32  | 0.01  | 0.04  | 0.25  | 0.68  |   | 0.30  | 0.72  |   |      |
| Uniform Delay, d1                 | 36.8  | 35.8  | 35.9  | 38.6  | 35.1  | 35.5  | 54.1  | 47.3  |   | 32.1  | 29.3  |   |      |
| Progression Factor                | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.02  | 1.25  |   | 0.77  | 0.78  |   |      |
| Incremental Delay, d2             | 0.9   | 0.3   | 0.4   | 2.1   | 0.0   | 0.2   | 2.4   | 1.1   |   | 0.2   | 1.7   |   |      |
| Delay (s)                         | 37.7  | 36.0  | 36.2  | 40.7  | 35.1  | 35.7  | 57.3  | 60.2  |   | 24.9  | 24.6  |   |      |
| Level of Service                  | D   | D   | D   | D   | D   | D   | E   | E   |   | C   | C   |   |      |
| Approach Delay (s)                |   | 36.6  |   |   | 38.8  |   |   | 60.1  |   |   | 24.6  |   |      |
| Approach LOS                      |   | D   |   |   | D   |   |   | E   |   |   | C   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 39.1  |   |   |   |   |   |   |   |   | HCM 2000 Level of Service   | D    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.59  |   |   |   |   |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 140.0   |   |   |   |   |   |   |   |   | Sum of lost time (s)  | 13.3 |
| Intersection Capacity Utilization |   |   | 82.0%   |   |   |   |   |   |   |   |   | ICU Level of Service  | D    |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |      |
| c                                 | Critical Lane Group   |   |   |   |   |   |   |   |   |   |   |   |      |



HCM Signalized Intersection Capacity Analysis  
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp

04/16/2018






























| Movement                          | EBL  | EBT  | EBR    | WBL   | WBT                       | WBR  | NBL   | NBT   | NBR  | SBL  | SBT  | SBR   |  |
|-----------------------------------|------|------|--------|-------|---------------------------|------|-------|-------|------|------|------|-------|--|
| Lane Configurations               |      |      |        | ↙     | ↖                         | ↗    | ↘     | ↑↑↑   |      |      | ↑↑↑  | ↘     |  |
| Traffic Volume (vph)              | 0    | 0    | 0      | 543   | 31                        | 39   | 86    | 524   | 0    | 0    | 1610 | 558   |  |
| Future Volume (vph)               | 0    | 0    | 0      | 543   | 31                        | 39   | 86    | 524   | 0    | 0    | 1610 | 558   |  |
| Ideal Flow (vphpl)                | 1900 | 1900 | 1900   | 1900  | 1900                      | 1900 | 1900  | 1900  | 1900 | 1900 | 1900 | 1900  |  |
| Total Lost time (s)               |      |      |        | 4.9   | 4.9                       | 4.9  | 5.3   | 5.3   |      |      |      | 5.3   |  |
| Lane Util. Factor                 |      |      |        | 0.95  | 0.95                      | 1.00 | 1.00  | 0.86  |      |      |      | 0.86  |  |
| Frbp, ped/bikes                   |      |      |        | 1.00  | 1.00                      | 1.00 | 1.00  | 1.00  |      |      |      | 1.00  |  |
| Flpb, ped/bikes                   |      |      |        | 1.00  | 1.00                      | 1.00 | 1.00  | 1.00  |      |      |      | 1.00  |  |
| Frt                               |      |      |        | 1.00  | 1.00                      | 0.85 | 1.00  | 1.00  |      |      |      | 0.96  |  |
| Flt Protected                     |      |      |        | 0.95  | 0.96                      | 1.00 | 0.95  | 1.00  |      |      |      | 1.00  |  |
| Satd. Flow (prot)                 |      |      |        | 1681  | 1694                      | 1583 | 1770  | 6408  |      |      |      | 6160  |  |
| Flt Permitted                     |      |      |        | 0.95  | 0.96                      | 1.00 | 0.95  | 1.00  |      |      |      | 1.00  |  |
| Satd. Flow (perm)                 |      |      |        | 1681  | 1694                      | 1583 | 1770  | 6408  |      |      |      | 6160  |  |
| Peak-hour factor, PHF             | 1.00 | 1.00 | 1.00   | 1.00  | 1.00                      | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  |  |
| Adj. Flow (vph)                   | 0    | 0    | 0      | 543   | 31                        | 39   | 86    | 524   | 0    | 0    | 1610 | 558   |  |
| RTOR Reduction (vph)              | 0    | 0    | 0      | 0     | 0                         | 31   | 0     | 0     | 0    | 0    | 44   | 0     |  |
| Lane Group Flow (vph)             | 0    | 0    | 0      | 288   | 286                       | 8    | 86    | 524   | 0    | 0    | 2124 | 0     |  |
| Confl. Peds. (#/hr)               |      |      |        |       |                           |      |       |       | 9    |      |      |       |  |
| Turn Type                         |      |      |        | Split | NA                        | Perm | Prot  | NA    |      |      |      | NA    |  |
| Protected Phases                  |      |      |        | 8     | 8                         |      | 5     | 2     |      |      |      | 6     |  |
| Permitted Phases                  |      |      |        |       |                           | 8    |       |       |      |      |      |       |  |
| Actuated Green, G (s)             |      |      |        | 27.1  | 27.1                      | 27.1 | 17.7  | 102.7 |      |      |      | 79.7  |  |
| Effective Green, g (s)            |      |      |        | 27.1  | 27.1                      | 27.1 | 17.7  | 102.7 |      |      |      | 79.7  |  |
| Actuated g/C Ratio                |      |      |        | 0.19  | 0.19                      | 0.19 | 0.13  | 0.73  |      |      |      | 0.57  |  |
| Clearance Time (s)                |      |      |        | 4.9   | 4.9                       | 4.9  | 5.3   | 5.3   |      |      |      | 5.3   |  |
| Vehicle Extension (s)             |      |      |        | 3.0   | 3.0                       | 3.0  | 3.0   | 3.0   |      |      |      | 3.0   |  |
| Lane Grp Cap (vph)                |      |      |        | 325   | 327                       | 306  | 223   | 4700  |      |      |      | 3506  |  |
| v/s Ratio Prot                    |      |      |        | c0.17 | 0.17                      |      | c0.05 | 0.08  |      |      |      | c0.34 |  |
| v/s Ratio Perm                    |      |      |        |       |                           | 0.00 |       |       |      |      |      |       |  |
| v/c Ratio                         |      |      |        | 0.89  | 0.87                      | 0.02 | 0.39  | 0.11  |      |      |      | 0.61  |  |
| Uniform Delay, d1                 |      |      |        | 54.9  | 54.8                      | 45.7 | 56.2  | 5.4   |      |      |      | 19.8  |  |
| Progression Factor                |      |      |        | 1.00  | 1.00                      | 1.00 | 1.20  | 0.53  |      |      |      | 0.30  |  |
| Incremental Delay, d2             |      |      |        | 27.9  | 26.2                      | 0.1  | 4.9   | 0.0   |      |      |      | 0.5   |  |
| Delay (s)                         |      |      |        | 82.9  | 81.0                      | 45.9 | 72.4  | 2.9   |      |      |      | 6.5   |  |
| Level of Service                  |      |      |        | F     | F                         | D    | E     | A     |      |      |      | A     |  |
| Approach Delay (s)                |      | 0.0  |        |       | 79.6                      |      |       | 12.7  |      |      |      | 6.5   |  |
| Approach LOS                      |      | A    |        |       | E                         |      |       | B     |      |      |      | A     |  |
| <b>Intersection Summary</b>       |      |      |        |       |                           |      |       |       |      |      |      |       |  |
| HCM 2000 Control Delay            |      |      | 20.8   |       | HCM 2000 Level of Service |      |       |       |      |      | C    |       |  |
| HCM 2000 Volume to Capacity ratio |      |      | 0.63   |       |                           |      |       |       |      |      |      |       |  |
| Actuated Cycle Length (s)         |      |      | 140.0  |       | Sum of lost time (s)      |      |       |       |      | 15.5 |      |       |  |
| Intersection Capacity Utilization |      |      | 106.0% |       | ICU Level of Service      |      |       |       |      | G    |      |       |  |
| Analysis Period (min)             |      |      | 15     |       |                           |      |       |       |      |      |      |       |  |
| c Critical Lane Group             |      |      |        |       |                           |      |       |       |      |      |      |       |  |

## HCM Signalized Intersection Capacity Analysis

### 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

























04/16/2018

|                                   |    |    |  |  |  |  |  |    |  |    |    |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |   |   |   |   |   |  |     |  |   |     |   |      |
| Traffic Volume (vph)              | 130   | 0   | 135   | 0   | 0   | 0   | 0  | 480   | 645   | 347   | 1806  | 0   |      |
| Future Volume (vph)               | 130   | 0   | 135   | 0   | 0   | 0   | 0  | 480   | 645   | 347   | 1806  | 0   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Lane Util. Factor                 | 0.91  | 0.91  |   |   |   |   |  | 0.81  | 1.00  | 1.00  | 0.91  |   |      |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 0.99  | 1.00  | 1.00  |   |      |
| Flpb, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 1.00  | 1.00  |   |      |
| Frt                               | 1.00  | 0.86  |   |   |   |   |  | 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)                 | 3221  | 1457  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Flt Permitted                     | 0.95  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 3221  | 1457  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |      |
| Adj. Flow (vph)                   | 130   | 0   | 135   | 0   | 0   | 0   | 0  | 480   | 645   | 347   | 1806  | 0   |      |
| RTOR Reduction (vph)              | 0   | 59  | 0   | 0   | 0   | 0   | 0  | 0   | 364   | 0   | 0   | 0   |      |
| Lane Group Flow (vph)             | 117   | 89  | 0   | 0   | 0   | 0   | 0  | 480   | 281   | 347   | 1806  | 0   |      |
| Confl. Bikes (#/hr)               |   |   |   |   |   |   |  |   | 5   |   |   |   |      |
| Turn Type                         | Split   | NA  |   |   |   |   |  | NA  | Perm  | Prot  | NA  |   |      |
| Protected Phases                  | 4   | 4   |   |   |   |   |  | 2   |   | 1   | 6   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   | 2   |   |   |   |      |
| Actuated Green, G (s)             | 30.1  | 30.1  |   |   |   |   |  | 54.7  | 54.7  | 36.7  | 97.7  |   |      |
| Effective Green, g (s)            | 30.1  | 30.1  |   |   |   |   |  | 54.7  | 54.7  | 36.7  | 97.7  |   |      |
| Actuated g/C Ratio                | 0.22  | 0.22  |   |   |   |   |  | 0.39  | 0.39  | 0.26  | 0.70  |   |      |
| Clearance Time (s)                | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Vehicle Extension (s)             | 3.0   | 3.0   |   |   |   |   |  | 3.0   | 3.0   | 3.0   | 3.0   |   |      |
| Lane Grp Cap (vph)                | 692   | 313   |   |   |   |   |  | 2947  | 609   | 463   | 3548  |   |      |
| v/s Ratio Prot                    | 0.04  | c0.06   |   |   |   |   |  | 0.06  |   | c0.20   | c0.36   |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   | 0.18  |   |   |   |      |
| v/c Ratio                         | 0.17  | 0.28  |   |   |   |   |  | 0.16  | 0.46  | 0.75  | 0.51  |   |      |
| Uniform Delay, d1                 | 44.8  | 45.9  |   |   |   |   |  | 27.8  | 31.7  | 47.4  | 9.9   |   |      |
| Progression Factor                | 1.00  | 1.00  |   |   |   |   |  | 1.31  | 8.67  | 0.69  | 0.87  |   |      |
| Incremental Delay, d2             | 0.5   | 2.3   |   |   |   |   |  | 0.0   | 0.5   | 8.6   | 0.4   |   |      |
| Delay (s)                         | 45.3  | 48.2  |   |   |   |   |  | 36.5  | 275.4   | 41.5  | 9.0   |   |      |
| Level of Service                  | D   | D   |   |   |   |   |  | D   | F   | D   | A   |   |      |
| Approach Delay (s)                |   | 46.9  |   |   | 0.0   |   |  | 173.4   |   |   | 14.2  |   |      |
| Approach LOS                      |   | D   |   |   | A   |   |  | F   |   |   | B   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 67.2  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | E    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.54  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 140.0   |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 18.5 |
| Intersection Capacity Utilization |   |   | 106.0%  |   |   |   |  |   |   |   |   | ICU Level of Service  | G    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |
| c                                 | Critical Lane Group   |   |   |   |   |   |  |   |   |   |   |   |      |

HCM Signalized Intersection Capacity Analysis

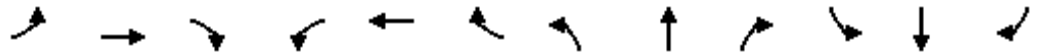
3: Mathilda Ave & Ross Dr

04/16/2018

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)              | 70  | 39  | 129   | 127   | 4   | 71  | 59   | 984   | 324   | 190   | 1697  | 54  |
| Future Volume (vph)               | 70  | 39  | 129   | 127   | 4   | 71  | 59   | 984   | 324   | 190   | 1697  | 54  |
| 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  | 5.3   |   | 4.0   | 5.3   |   |
| Lane Util. Factor                 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 0.81  |   | 1.00  | 0.91  |   |
| Frbp, ped/bikes                   | 1.00  | 1.00  | 0.98  | 1.00  | 1.00  | 1.00  | 1.00   | 0.99  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes                   | 1.00  | 1.00  | 1.00  | 0.99  | 1.00  | 1.00  | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Frt                               | 1.00  | 1.00  | 0.85  | 1.00  | 1.00  | 0.85  | 1.00   | 0.96  |   | 1.00  | 1.00  |   |
| Flt Protected                     | 0.95  | 1.00  | 1.00  | 0.95  | 1.00  | 1.00  | 0.95   | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 | 1770  | 1863  | 1555  | 1760  | 1863  | 1583  | 1770   | 7205  |   | 1770  | 5062  |   |
| Flt Permitted                     | 0.76  | 1.00  | 1.00  | 0.73  | 1.00  | 1.00  | 0.95   | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (perm)                 | 1407  | 1863  | 1555  | 1355  | 1863  | 1583  | 1770   | 7205  |   | 1770  | 5062  |   |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Adj. Flow (vph)                   | 70  | 39  | 129   | 127   | 4   | 71  | 59   | 984   | 324   | 190   | 1697  | 54  |
| RTOR Reduction (vph)              | 0   | 0   | 91  | 0   | 0   | 50  | 0  | 61  | 0   | 0   | 3   | 0   |
| Lane Group Flow (vph)             | 70  | 39  | 38  | 127   | 4   | 21  | 59   | 1247  | 0   | 190   | 1748  | 0   |
| Confl. Peds. (#/hr)               |   |   | 5   | 5   |   |   |  |   | 5   |   |   |   |
| Turn Type                         | Perm  | NA  | Perm  | Perm  | NA  | Perm  | Prot   | NA  |   | Prot  | NA  |   |
| Protected Phases                  |   | 4   |   |   | 8   |   | 5  | 2   |   | 1   |   | 6   |
| Permitted Phases                  | 4   |   | 4   | 8   |   | 8   |  |   |   |   |   |   |
| Actuated Green, G (s)             | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 19.0   | 35.4  |   | 50.3  | 66.7  |   |
| Effective Green, g (s)            | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 19.0   | 35.4  |   | 50.3  | 66.7  |   |
| Actuated g/C Ratio                | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.14   | 0.25  |   | 0.36  | 0.48  |   |
| Clearance Time (s)                | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0  | 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 Grp Cap (vph)                | 412   | 545   | 455   | 396   | 545   | 463   | 240  | 1821  |   | 635   | 2411  |   |
| v/s Ratio Prot                    |   | 0.02  |   |   | 0.00  |   | 0.03   | c0.17   |   | 0.11  | c0.35   |   |
| v/s Ratio Perm                    | 0.05  |   | 0.02  | c0.09   |   | 0.01  |  |   |   |   |   |   |
| v/c Ratio                         | 0.17  | 0.07  | 0.08  | 0.32  | 0.01  | 0.04  | 0.25   | 0.69  |   | 0.30  | 0.73  |   |
| Uniform Delay, d1                 | 36.8  | 35.8  | 35.9  | 38.6  | 35.1  | 35.5  | 54.1   | 47.3  |   | 32.2  | 29.3  |   |
| Progression Factor                | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.02   | 1.25  |   | 0.77  | 0.78  |   |
| Incremental Delay, d2             | 0.9   | 0.3   | 0.4   | 2.1   | 0.0   | 0.2   | 2.4  | 1.1   |   | 0.2   | 1.7   |   |
| Delay (s)                         | 37.7  | 36.0  | 36.2  | 40.8  | 35.1  | 35.7  | 57.3   | 60.1  |   | 25.0  | 24.6  |   |
| Level of Service                  | D   | D   | D   | D   | D   | D   | E  | E   |   | C   | C   |   |
| Approach Delay (s)                |   | 36.6  |   |   | 38.9  |   |  | 60.0  |   |   | 24.7  |   |
| Approach LOS                      |   | D   |   |   | D   |   |  | E   |   |   | C   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 39.1  |   |   |   | HCM 2000 Level of Service  |   |   |   | D   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.60  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 140.0   |   |   |   | Sum of lost time (s)   |   |   | 13.3  |   |   |
| Intersection Capacity Utilization |   |   | 82.1%   |   |   |   | ICU Level of Service   |   |   | E   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |
| c Critical Lane Group             |   |   |   |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp

12/19/2017






























| Movement               | EBL  | EBT  | EBR  | WBL   | WBT   | WBR  | NBL   | NBT   | NBR  | SBL  | SBT  | SBR    |
|------------------------|------|------|------|-------|-------|------|-------|-------|------|------|------|--------|
| Lane Configurations    |      |      |      | ↖     | ↖     | ↖    | ↖     | ↑↑↑   |      |      | ↑↑↑  | ↗      |
| Traffic Volume (vph)   | 0    | 0    | 0    | 593   | 31    | 114  | 97    | 966   | 0    | 0    | 2696 | 1090   |
| Future Volume (vph)    | 0    | 0    | 0    | 593   | 31    | 114  | 97    | 966   | 0    | 0    | 2696 | 1090   |
| Ideal Flow (vphpl)     | 1900 | 1900 | 1900 | 1900  | 1900  | 1900 | 1900  | 1900  | 1900 | 1900 | 1900 | 1900   |
| Total Lost time (s)    |      |      |      | 4.9   | 4.9   | 4.9  | 5.3   | 5.3   |      |      |      | 5.3    |
| Lane Util. Factor      |      |      |      | 0.95  | 0.95  | 1.00 | 1.00  | 0.86  |      |      |      | 0.86   |
| Frbp, ped/bikes        |      |      |      | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |      |      |      | 1.00   |
| Flpb, ped/bikes        |      |      |      | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |      |      |      | 1.00   |
| Frt                    |      |      |      | 1.00  | 1.00  | 0.85 | 1.00  | 1.00  |      |      |      | 0.96   |
| Flt Protected          |      |      |      | 0.95  | 0.96  | 1.00 | 0.95  | 1.00  |      |      |      | 1.00   |
| Satd. Flow (prot)      |      |      |      | 1681  | 1693  | 1583 | 1770  | 6408  |      |      |      | 6131   |
| Flt Permitted          |      |      |      | 0.95  | 0.96  | 1.00 | 0.95  | 1.00  |      |      |      | 1.00   |
| Satd. Flow (perm)      |      |      |      | 1681  | 1693  | 1583 | 1770  | 6408  |      |      |      | 6131   |
| Peak-hour factor, PHF  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00   |
| Adj. Flow (vph)        | 0    | 0    | 0    | 593   | 31    | 114  | 97    | 966   | 0    | 0    | 2696 | 1090   |
| RTOR Reduction (vph)   | 0    | 0    | 0    | 0     | 0     | 92   | 0     | 0     | 0    | 0    | 52   | 0      |
| Lane Group Flow (vph)  | 0    | 0    | 0    | 308   | 316   | 22   | 97    | 966   | 0    | 0    | 3734 | 0      |
| Confl. Peds. (#/hr)    |      |      |      |       |       |      |       |       | 9    |      |      |        |
| Turn Type              |      |      |      | Split | NA    | Perm | Prot  | NA    |      |      |      | NA     |
| Protected Phases       |      |      |      | 8     | 8     |      | 5     | 2     |      |      |      | 6      |
| Permitted Phases       |      |      |      |       |       | 8    |       |       |      |      |      |        |
| Actuated Green, G (s)  |      |      |      | 27.1  | 27.1  | 27.1 | 17.7  | 102.7 |      |      |      | 79.7   |
| Effective Green, g (s) |      |      |      | 27.1  | 27.1  | 27.1 | 17.7  | 102.7 |      |      |      | 79.7   |
| Actuated g/C Ratio     |      |      |      | 0.19  | 0.19  | 0.19 | 0.13  | 0.73  |      |      |      | 0.57   |
| Clearance Time (s)     |      |      |      | 4.9   | 4.9   | 4.9  | 5.3   | 5.3   |      |      |      | 5.3    |
| Vehicle Extension (s)  |      |      |      | 3.0   | 3.0   | 3.0  | 3.0   | 3.0   |      |      |      | 3.0    |
| Lane Grp Cap (vph)     |      |      |      | 325   | 327   | 306  | 223   | 4700  |      |      |      | 3490   |
| v/s Ratio Prot         |      |      |      | 0.18  | c0.19 |      | c0.05 | 0.15  |      |      |      | c0.61  |
| v/s Ratio Perm         |      |      |      |       |       | 0.01 |       |       |      |      |      |        |
| v/c Ratio              |      |      |      | 0.95  | 0.97  | 0.07 | 0.43  | 0.21  |      |      |      | 1.12dr |
| Uniform Delay, d1      |      |      |      | 55.8  | 56.0  | 46.2 | 56.5  | 5.9   |      |      |      | 30.1   |
| Progression Factor     |      |      |      | 1.00  | 1.00  | 1.00 | 1.17  | 0.53  |      |      |      | 0.59   |
| Incremental Delay, d2  |      |      |      | 38.2  | 41.9  | 0.5  | 6.0   | 0.1   |      |      |      | 37.7   |
| Delay (s)              |      |      |      | 94.0  | 97.9  | 46.6 | 72.2  | 3.2   |      |      |      | 55.6   |
| Level of Service       |      |      |      | F     | F     | D    | E     | A     |      |      |      | E      |
| Approach Delay (s)     |      | 0.0  |      |       | 88.4  |      |       | 9.5   |      |      |      | 55.6   |
| Approach LOS           |      | A    |      |       | F     |      |       | A     |      |      |      | E      |

| Intersection Summary              |        |                           |      |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay            | 51.2   | HCM 2000 Level of Service | D    |
| HCM 2000 Volume to Capacity ratio | 0.96   |                           |      |
| Actuated Cycle Length (s)         | 140.0  | Sum of lost time (s)      | 15.5 |
| Intersection Capacity Utilization | 148.6% | ICU Level of Service      | H    |
| Analysis Period (min)             | 15     |                           |      |

dr Defacto Right Lane. Recode with 1 though lane as a right lane.  
 c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

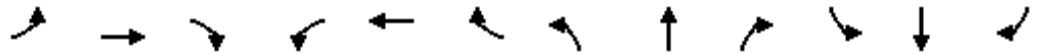
12/19/2017

|                                   |    |    |  |  |  |  |  |    |  |    |    |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |   |   |   |   |   |  |     |  |   |     |   |      |
| Traffic Volume (vph)              | 331   | 0   | 145   | 0   | 0   | 0   | 0  | 732   | 850   | 590   | 2698  | 0   |      |
| Future Volume (vph)               | 331   | 0   | 145   | 0   | 0   | 0   | 0  | 732   | 850   | 590   | 2698  | 0   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Lane Util. Factor                 | 0.91  | 0.91  |   |   |   |   |  | 0.81  | 1.00  | 1.00  | 0.91  |   |      |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 0.99  | 1.00  | 1.00  |   |      |
| Flpb, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 1.00  | 1.00  |   |      |
| Frt                               | 1.00  | 0.88  |   |   |   |   |  | 1.00  | 0.85  | 1.00  | 1.00  |   |      |
| Flt Protected                     | 0.95  | 0.99  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 3221  | 1474  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Flt Permitted                     | 0.95  | 0.99  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 3221  | 1474  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |      |
| Adj. Flow (vph)                   | 331   | 0   | 145   | 0   | 0   | 0   | 0  | 732   | 850   | 590   | 2698  | 0   |      |
| RTOR Reduction (vph)              | 0   | 59  | 0   | 0   | 0   | 0   | 0  | 0   | 317   | 0   | 0   | 0   |      |
| Lane Group Flow (vph)             | 298   | 119   | 0   | 0   | 0   | 0   | 0  | 732   | 533   | 590   | 2698  | 0   |      |
| Confl. Bikes (#/hr)               |   |   |   |   |   |   |  |   | 5   |   |   |   |      |
| Turn Type                         | Split   | NA  |   |   |   |   |  | NA  | Perm  | Prot  | NA  |   |      |
| Protected Phases                  | 4   | 4   |   |   |   |   |  | 2   |   | 1   | 6   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   | 2   |   |   |   |      |
| Actuated Green, G (s)             | 30.1  | 30.1  |   |   |   |   |  | 54.7  | 54.7  | 36.7  | 97.7  |   |      |
| Effective Green, g (s)            | 30.1  | 30.1  |   |   |   |   |  | 54.7  | 54.7  | 36.7  | 97.7  |   |      |
| Actuated g/C Ratio                | 0.22  | 0.22  |   |   |   |   |  | 0.39  | 0.39  | 0.26  | 0.70  |   |      |
| Clearance Time (s)                | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Vehicle Extension (s)             | 3.0   | 3.0   |   |   |   |   |  | 3.0   | 3.0   | 3.0   | 3.0   |   |      |
| Lane Grp Cap (vph)                | 692   | 316   |   |   |   |   |  | 2947  | 609   | 463   | 3548  |   |      |
| v/s Ratio Prot                    | c0.09   | 0.08  |   |   |   |   |  | 0.10  |   | c0.33   | 0.53  |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   | c0.34   |   |   |   |      |
| v/c Ratio                         | 0.43  | 0.38  |   |   |   |   |  | 0.25  | 0.87  | 1.27  | 0.76  |   |      |
| Uniform Delay, d1                 | 47.5  | 46.9  |   |   |   |   |  | 28.8  | 39.5  | 51.6  | 13.6  |   |      |
| Progression Factor                | 1.00  | 1.00  |   |   |   |   |  | 1.26  | 2.98  | 1.00  | 0.58  |   |      |
| Incremental Delay, d2             | 2.0   | 3.4   |   |   |   |   |  | 0.0   | 12.0  | 125.0   | 0.1   |   |      |
| Delay (s)                         | 49.5  | 50.3  |   |   |   |   |  | 36.3  | 129.7   | 176.9   | 8.1   |   |      |
| Level of Service                  | D   | D   |   |   |   |   |  | D   | F   | F   | A   |   |      |
| Approach Delay (s)                |   | 49.8  |   |   | 0.0   |   |  | 86.5  |   |   | 38.4  |   |      |
| Approach LOS                      |   | D   |   |   | A   |   |  | F   |   |   | D   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 53.6  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | D    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.88  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 140.0   |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 18.5 |
| Intersection Capacity Utilization |   |   | 148.6%  |   |   |   |  |   |   |   |   | ICU Level of Service  | H    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |
| c                                 | Critical Lane Group   |   |   |   |   |   |  |   |   |   |   |   |      |

HCM Signalized Intersection Capacity Analysis

3: Mathilda Ave & Ross Dr

12/19/2017

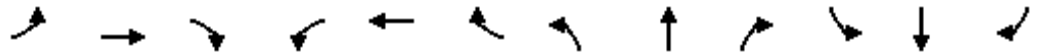


| Movement               | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT   | NBR  | SBL  | SBT   | SBR  |
|------------------------|------|------|------|-------|------|------|------|-------|------|------|-------|------|
| Lane Configurations    |      |      |      |       |      |      |      |       |      |      |       |      |
| Traffic Volume (vph)   | 70   | 39   | 129  | 134   | 4    | 73   | 59   | 1439  | 331  | 212  | 2577  | 54   |
| Future Volume (vph)    | 70   | 39   | 129  | 134   | 4    | 73   | 59   | 1439  | 331  | 212  | 2577  | 54   |
| 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  | 5.3   |      | 4.0  | 5.3   |      |
| Lane Util. Factor      | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 0.81  |      | 1.00 | 0.91  |      |
| Frbp, ped/bikes        | 1.00 | 1.00 | 0.98 | 1.00  | 1.00 | 1.00 | 1.00 | 0.99  |      | 1.00 | 1.00  |      |
| Flpb, ped/bikes        | 1.00 | 1.00 | 1.00 | 0.99  | 1.00 | 1.00 | 1.00 | 1.00  |      | 1.00 | 1.00  |      |
| Frt                    | 1.00 | 1.00 | 0.85 | 1.00  | 1.00 | 0.85 | 1.00 | 0.97  |      | 1.00 | 1.00  |      |
| Flt Protected          | 0.95 | 1.00 | 1.00 | 0.95  | 1.00 | 1.00 | 0.95 | 1.00  |      | 0.95 | 1.00  |      |
| Satd. Flow (prot)      | 1770 | 1863 | 1555 | 1760  | 1863 | 1583 | 1770 | 7288  |      | 1770 | 5070  |      |
| Flt Permitted          | 0.76 | 1.00 | 1.00 | 0.73  | 1.00 | 1.00 | 0.95 | 1.00  |      | 0.95 | 1.00  |      |
| Satd. Flow (perm)      | 1407 | 1863 | 1555 | 1355  | 1863 | 1583 | 1770 | 7288  |      | 1770 | 5070  |      |
| Peak-hour factor, PHF  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 |
| Adj. Flow (vph)        | 70   | 39   | 129  | 134   | 4    | 73   | 59   | 1439  | 331  | 212  | 2577  | 54   |
| RTOR Reduction (vph)   | 0    | 0    | 91   | 0     | 0    | 52   | 0    | 37    | 0    | 0    | 2     | 0    |
| Lane Group Flow (vph)  | 70   | 39   | 38   | 134   | 4    | 21   | 59   | 1733  | 0    | 212  | 2629  | 0    |
| Confl. Peds. (#/hr)    |      |      | 5    | 5     |      |      |      |       | 5    |      |       |      |
| Turn Type              | Perm | NA   | Perm | Perm  | NA   | Perm | Prot | NA    |      | Prot | NA    |      |
| Protected Phases       |      | 4    |      |       | 8    |      | 5    | 2     |      | 1    |       | 6    |
| Permitted Phases       | 4    |      | 4    | 8     |      | 8    |      |       |      |      |       |      |
| Actuated Green, G (s)  | 41.0 | 41.0 | 41.0 | 41.0  | 41.0 | 41.0 | 19.0 | 48.9  |      | 36.8 | 66.7  |      |
| Effective Green, g (s) | 41.0 | 41.0 | 41.0 | 41.0  | 41.0 | 41.0 | 19.0 | 48.9  |      | 36.8 | 66.7  |      |
| Actuated g/C Ratio     | 0.29 | 0.29 | 0.29 | 0.29  | 0.29 | 0.29 | 0.14 | 0.35  |      | 0.26 | 0.48  |      |
| Clearance Time (s)     | 4.0  | 4.0  | 4.0  | 4.0   | 4.0  | 4.0  | 4.0  | 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 Grp Cap (vph)     | 412  | 545  | 455  | 396   | 545  | 463  | 240  | 2545  |      | 465  | 2415  |      |
| v/s Ratio Prot         |      | 0.02 |      |       | 0.00 |      | 0.03 | c0.24 |      | 0.12 | c0.52 |      |
| v/s Ratio Perm         | 0.05 |      | 0.02 | c0.10 |      | 0.01 |      |       |      |      |       |      |
| v/c Ratio              | 0.17 | 0.07 | 0.08 | 0.34  | 0.01 | 0.05 | 0.25 | 0.68  |      | 0.46 | 1.09  |      |
| Uniform Delay, d1      | 36.8 | 35.8 | 35.9 | 38.9  | 35.1 | 35.5 | 54.1 | 38.9  |      | 43.2 | 36.6  |      |
| Progression Factor     | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 0.91 | 1.13  |      | 0.66 | 0.59  |      |
| Incremental Delay, d2  | 0.9  | 0.3  | 0.4  | 2.3   | 0.0  | 0.2  | 2.3  | 0.7   |      | 0.5  | 45.2  |      |
| Delay (s)              | 37.7 | 36.0 | 36.2 | 41.2  | 35.1 | 35.7 | 51.2 | 44.5  |      | 28.9 | 67.0  |      |
| Level of Service       | D    | D    | D    | D     | D    | D    | D    | D     |      | C    | E     |      |
| Approach Delay (s)     |      | 36.6 |      |       | 39.1 |      |      | 44.8  |      |      | 64.1  |      |
| Approach LOS           |      | D    |      |       | D    |      |      | D     |      |      | E     |      |

| Intersection Summary              |       |                           |
|-----------------------------------|-------|---------------------------|
| HCM 2000 Control Delay            | 54.9  | HCM 2000 Level of Service |
| HCM 2000 Volume to Capacity ratio | 0.79  | D                         |
| Actuated Cycle Length (s)         | 140.0 | Sum of lost time (s)      |
| Intersection Capacity Utilization | 99.5% | 13.3                      |
| Analysis Period (min)             | 15    | ICU Level of Service      |
|                                   |       | F                         |
| c Critical Lane Group             |       |                           |

HCM Signalized Intersection Capacity Analysis  
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp

04/16/2018



| Movement               | EBL  | EBT  | EBR  | WBL   | WBT   | WBR  | NBL   | NBT   | NBR  | SBL  | SBT  | SBR    |
|------------------------|------|------|------|-------|-------|------|-------|-------|------|------|------|--------|
| Lane Configurations    |      |      |      | ↖     | ↖     | ↖    | ↖     | ↑↑↑   |      |      | ↑↑↑  | ↗      |
| Traffic Volume (vph)   | 0    | 0    | 0    | 595   | 31    | 114  | 97    | 966   | 0    | 0    | 2696 | 1090   |
| Future Volume (vph)    | 0    | 0    | 0    | 595   | 31    | 114  | 97    | 966   | 0    | 0    | 2696 | 1090   |
| Ideal Flow (vphpl)     | 1900 | 1900 | 1900 | 1900  | 1900  | 1900 | 1900  | 1900  | 1900 | 1900 | 1900 | 1900   |
| Total Lost time (s)    |      |      |      | 4.9   | 4.9   | 4.9  | 5.3   | 5.3   |      |      |      | 5.3    |
| Lane Util. Factor      |      |      |      | 0.95  | 0.95  | 1.00 | 1.00  | 0.86  |      |      |      | 0.86   |
| Frbp, ped/bikes        |      |      |      | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |      |      |      | 1.00   |
| Flpb, ped/bikes        |      |      |      | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |      |      |      | 1.00   |
| Frt                    |      |      |      | 1.00  | 1.00  | 0.85 | 1.00  | 1.00  |      |      |      | 0.96   |
| Flt Protected          |      |      |      | 0.95  | 0.96  | 1.00 | 0.95  | 1.00  |      |      |      | 1.00   |
| Satd. Flow (prot)      |      |      |      | 1681  | 1693  | 1583 | 1770  | 6408  |      |      |      | 6131   |
| Flt Permitted          |      |      |      | 0.95  | 0.96  | 1.00 | 0.95  | 1.00  |      |      |      | 1.00   |
| Satd. Flow (perm)      |      |      |      | 1681  | 1693  | 1583 | 1770  | 6408  |      |      |      | 6131   |
| Peak-hour factor, PHF  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00   |
| Adj. Flow (vph)        | 0    | 0    | 0    | 595   | 31    | 114  | 97    | 966   | 0    | 0    | 2696 | 1090   |
| RTOR Reduction (vph)   | 0    | 0    | 0    | 0     | 0     | 92   | 0     | 0     | 0    | 0    | 52   | 0      |
| Lane Group Flow (vph)  | 0    | 0    | 0    | 309   | 317   | 22   | 97    | 966   | 0    | 0    | 3734 | 0      |
| Confl. Peds. (#/hr)    |      |      |      |       |       |      |       |       | 9    |      |      |        |
| Turn Type              |      |      |      | Split | NA    | Perm | Prot  | NA    |      |      |      | NA     |
| Protected Phases       |      |      |      | 8     | 8     |      | 5     | 2     |      |      |      | 6      |
| Permitted Phases       |      |      |      |       |       | 8    |       |       |      |      |      |        |
| Actuated Green, G (s)  |      |      |      | 27.1  | 27.1  | 27.1 | 17.7  | 102.7 |      |      |      | 79.7   |
| Effective Green, g (s) |      |      |      | 27.1  | 27.1  | 27.1 | 17.7  | 102.7 |      |      |      | 79.7   |
| Actuated g/C Ratio     |      |      |      | 0.19  | 0.19  | 0.19 | 0.13  | 0.73  |      |      |      | 0.57   |
| Clearance Time (s)     |      |      |      | 4.9   | 4.9   | 4.9  | 5.3   | 5.3   |      |      |      | 5.3    |
| Vehicle Extension (s)  |      |      |      | 3.0   | 3.0   | 3.0  | 3.0   | 3.0   |      |      |      | 3.0    |
| Lane Grp Cap (vph)     |      |      |      | 325   | 327   | 306  | 223   | 4700  |      |      |      | 3490   |
| v/s Ratio Prot         |      |      |      | 0.18  | c0.19 |      | c0.05 | 0.15  |      |      |      | c0.61  |
| v/s Ratio Perm         |      |      |      |       |       | 0.01 |       |       |      |      |      |        |
| v/c Ratio              |      |      |      | 0.95  | 0.97  | 0.07 | 0.43  | 0.21  |      |      |      | 1.12dr |
| Uniform Delay, d1      |      |      |      | 55.8  | 56.0  | 46.2 | 56.5  | 5.9   |      |      |      | 30.1   |
| Progression Factor     |      |      |      | 1.00  | 1.00  | 1.00 | 1.17  | 0.53  |      |      |      | 0.59   |
| Incremental Delay, d2  |      |      |      | 38.8  | 42.6  | 0.5  | 6.0   | 0.1   |      |      |      | 37.7   |
| Delay (s)              |      |      |      | 94.6  | 98.6  | 46.6 | 72.2  | 3.2   |      |      |      | 55.6   |
| Level of Service       |      |      |      | F     | F     | D    | E     | A     |      |      |      | E      |
| Approach Delay (s)     |      | 0.0  |      |       | 89.0  |      |       | 9.5   |      |      |      | 55.6   |
| Approach LOS           |      | A    |      |       | F     |      |       | A     |      |      |      | E      |




























| Intersection Summary              |        |                           |      |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay            | 51.3   | HCM 2000 Level of Service | D    |
| HCM 2000 Volume to Capacity ratio | 0.96   |                           |      |
| Actuated Cycle Length (s)         | 140.0  | Sum of lost time (s)      | 15.5 |
| Intersection Capacity Utilization | 148.9% | ICU Level of Service      | H    |
| Analysis Period (min)             | 15     |                           |      |

dr Defacto Right Lane. Recode with 1 though lane as a right lane.  
 c Critical Lane Group



HCM Signalized Intersection Capacity Analysis  
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

04/16/2018



























|                                   |    |    |  |  |  |  |  |    |  |    |    |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |   |   |   |   |   |  |     |  |   |     |   |      |
| Traffic Volume (vph)              | 331   | 0   | 145   | 0   | 0   | 0   | 0  | 732   | 854   | 590   | 2700  | 0   |      |
| Future Volume (vph)               | 331   | 0   | 145   | 0   | 0   | 0   | 0  | 732   | 854   | 590   | 2700  | 0   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Lane Util. Factor                 | 0.91  | 0.91  |   |   |   |   |  | 0.81  | 1.00  | 1.00  | 0.91  |   |      |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 0.99  | 1.00  | 1.00  |   |      |
| Flpb, ped/bikes                   | 1.00  | 1.00  |   |   |   |   |  | 1.00  | 1.00  | 1.00  | 1.00  |   |      |
| Frt                               | 1.00  | 0.88  |   |   |   |   |  | 1.00  | 0.85  | 1.00  | 1.00  |   |      |
| Flt Protected                     | 0.95  | 0.99  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 3221  | 1474  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Flt Permitted                     | 0.95  | 0.99  |   |   |   |   |  | 1.00  | 1.00  | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 3221  | 1474  |   |   |   |   |  | 7544  | 1560  | 1770  | 5085  |   |      |
| Peak-hour factor, PHF             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |      |
| Adj. Flow (vph)                   | 331   | 0   | 145   | 0   | 0   | 0   | 0  | 732   | 854   | 590   | 2700  | 0   |      |
| RTOR Reduction (vph)              | 0   | 59  | 0   | 0   | 0   | 0   | 0  | 0   | 317   | 0   | 0   | 0   |      |
| Lane Group Flow (vph)             | 298   | 119   | 0   | 0   | 0   | 0   | 0  | 732   | 537   | 590   | 2700  | 0   |      |
| Confl. Bikes (#/hr)               |   |   |   |   |   |   |  |   | 5   |   |   |   |      |
| Turn Type                         | Split   | NA  |   |   |   |   |  | NA  | Perm  | Prot  | NA  |   |      |
| Protected Phases                  | 4   | 4   |   |   |   |   |  | 2   |   | 1   | 6   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   | 2   |   |   |   |      |
| Actuated Green, G (s)             | 30.1  | 30.1  |   |   |   |   |  | 54.7  | 54.7  | 36.7  | 97.7  |   |      |
| Effective Green, g (s)            | 30.1  | 30.1  |   |   |   |   |  | 54.7  | 54.7  | 36.7  | 97.7  |   |      |
| Actuated g/C Ratio                | 0.22  | 0.22  |   |   |   |   |  | 0.39  | 0.39  | 0.26  | 0.70  |   |      |
| Clearance Time (s)                | 5.9   | 5.9   |   |   |   |   |  | 6.3   | 6.3   | 6.3   | 6.3   |   |      |
| Vehicle Extension (s)             | 3.0   | 3.0   |   |   |   |   |  | 3.0   | 3.0   | 3.0   | 3.0   |   |      |
| Lane Grp Cap (vph)                | 692   | 316   |   |   |   |   |  | 2947  | 609   | 463   | 3548  |   |      |
| v/s Ratio Prot                    | c0.09   | 0.08  |   |   |   |   |  | 0.10  |   | c0.33   | 0.53  |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   | c0.34   |   |   |   |      |
| v/c Ratio                         | 0.43  | 0.38  |   |   |   |   |  | 0.25  | 0.88  | 1.27  | 0.76  |   |      |
| Uniform Delay, d1                 | 47.5  | 46.9  |   |   |   |   |  | 28.8  | 39.6  | 51.6  | 13.6  |   |      |
| Progression Factor                | 1.00  | 1.00  |   |   |   |   |  | 1.26  | 2.97  | 1.00  | 0.59  |   |      |
| Incremental Delay, d2             | 2.0   | 3.4   |   |   |   |   |  | 0.0   | 12.8  | 125.0   | 0.1   |   |      |
| Delay (s)                         | 49.5  | 50.3  |   |   |   |   |  | 36.2  | 130.3   | 176.9   | 8.1   |   |      |
| Level of Service                  | D   | D   |   |   |   |   |  | D   | F   | F   | A   |   |      |
| Approach Delay (s)                |   | 49.8  |   |   | 0.0   |   |  | 86.9  |   |   | 38.4  |   |      |
| Approach LOS                      |   | D   |   |   | A   |   |  | F   |   |   | D   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 53.8  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | D    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.89  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 140.0   |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 18.5 |
| Intersection Capacity Utilization |   |   | 148.9%  |   |   |   |  |   |   |   |   | ICU Level of Service  | H    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |
| c                                 | Critical Lane Group   |   |   |   |   |   |  |   |   |   |   |   |      |



## HCM Signalized Intersection Capacity Analysis

## 3: Mathilda Ave &amp; Ross Dr

04/16/2018

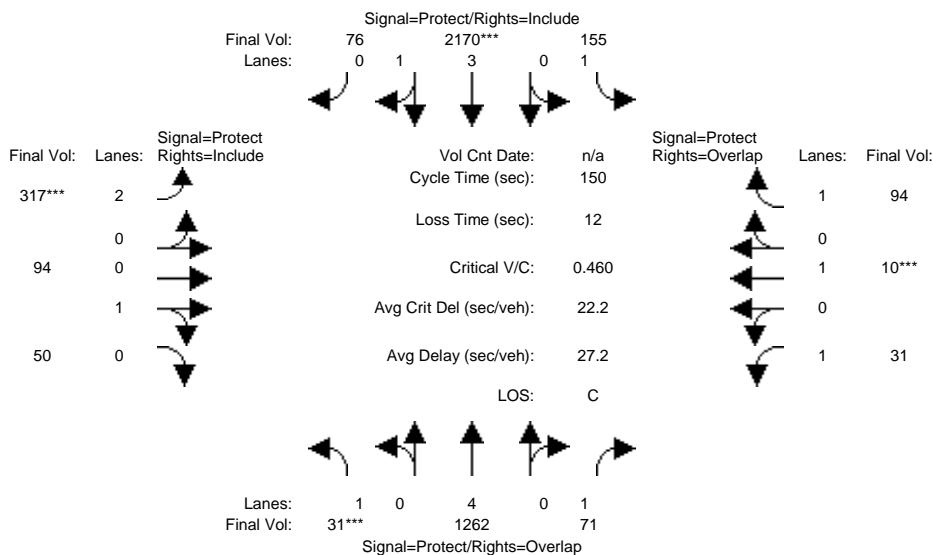
|                                   |  |  |  |  |  |  |   |  |  |  |  |  |  |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |   |   |
| Lane Configurations               |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
| Traffic Volume (vph)              | 70  | 39  | 129   | 136   | 4   | 73  | 59  | 1443  | 332   | 212   | 2579  | 54  |   |   |
| Future Volume (vph)               | 70  | 39  | 129   | 136   | 4   | 73  | 59  | 1443  | 332   | 212   | 2579  | 54  |   |   |
| Ideal Flow (vphpl)                | 1900  | 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   | 5.3   |   | 4.0   | 5.3   |   |   |   |
| Lane Util. Factor                 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 0.81  |   | 1.00  | 0.91  |   |   |   |
| Frbp, ped/bikes                   | 1.00  | 1.00  | 0.98  | 1.00  | 1.00  | 1.00  | 1.00  | 0.99  |   | 1.00  | 1.00  |   |   |   |
| Flpb, ped/bikes                   | 1.00  | 1.00  | 1.00  | 0.99  | 1.00  | 1.00  | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |   |
| Frt                               | 1.00  | 1.00  | 0.85  | 1.00  | 1.00  | 0.85  | 1.00  | 0.97  |   | 1.00  | 1.00  |   |   |   |
| Flt Protected                     | 0.95  | 1.00  | 1.00  | 0.95  | 1.00  | 1.00  | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   |   |
| Satd. Flow (prot)                 | 1770  | 1863  | 1555  | 1760  | 1863  | 1583  | 1770  | 7288  |   | 1770  | 5070  |   |   |   |
| Flt Permitted                     | 0.76  | 1.00  | 1.00  | 0.73  | 1.00  | 1.00  | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   |   |
| Satd. Flow (perm)                 | 1407  | 1863  | 1555  | 1355  | 1863  | 1583  | 1770  | 7288  |   | 1770  | 5070  |   |   |   |
| Peak-hour factor, PHF             | 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  |   |
| Adj. Flow (vph)                   | 70  | 39  | 129   | 136   | 4   | 73  | 59  | 1443  | 332   | 212   | 2579  | 54  |   |   |
| RTOR Reduction (vph)              | 0   | 0   | 91  | 0   | 0   | 52  | 0   | 37  | 0   | 0   | 2   | 0   |   |   |
| Lane Group Flow (vph)             | 70  | 39  | 38  | 136   | 4   | 21  | 59  | 1738  | 0   | 212   | 2631  | 0   |   |   |
| Confl. Peds. (#/hr)               |   |   | 5   | 5   |   |   |   |   | 5   |   |   |   |   |   |
| Turn Type                         | Perm  | NA  | Perm  | Perm  | NA  | Perm  | Prot  | NA  |   | Prot  | NA  |   |   |   |
| Protected Phases                  |   | 4   |   |   | 8   |   | 5   | 2   |   | 1   |   | 6   |   |   |
| Permitted Phases                  | 4   |   | 4   | 8   |   | 8   |   |   |   |   |   |   |   |   |
| Actuated Green, G (s)             | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 19.0  | 49.0  |   | 36.7  | 66.7  |   |   |   |
| Effective Green, g (s)            | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 19.0  | 49.0  |   | 36.7  | 66.7  |   |   |   |
| Actuated g/C Ratio                | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.14  | 0.35  |   | 0.26  | 0.48  |   |   |   |
| Clearance Time (s)                | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 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 Grp Cap (vph)                | 412   | 545   | 455   | 396   | 545   | 463   | 240   | 2550  |   | 463   | 2415  |   |   |   |
| v/s Ratio Prot                    |   | 0.02  |   |   | 0.00  |   | 0.03  | c0.24   |   | 0.12  | c0.52   |   |   |   |
| v/s Ratio Perm                    | 0.05  |   | 0.02  | c0.10   |   | 0.01  |   |   |   |   |   |   |   |   |
| v/c Ratio                         | 0.17  | 0.07  | 0.08  | 0.34  | 0.01  | 0.05  | 0.25  | 0.68  |   | 0.46  | 1.09  |   |   |   |
| Uniform Delay, d1                 | 36.8  | 35.8  | 35.9  | 38.9  | 35.1  | 35.5  | 54.1  | 38.8  |   | 43.3  | 36.6  |   |   |   |
| Progression Factor                | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 0.91  | 1.13  |   | 0.66  | 0.59  |   |   |   |
| Incremental Delay, d2             | 0.9   | 0.3   | 0.4   | 2.4   | 0.0   | 0.2   | 2.3   | 0.7   |   | 0.5   | 45.5  |   |   |   |
| Delay (s)                         | 37.7  | 36.0  | 36.2  | 41.3  | 35.1  | 35.7  | 51.2  | 44.4  |   | 28.9  | 67.3  |   |   |   |
| Level of Service                  | D   | D   | D   | D   | D   | D   | D   | D   |   | C   | E   |   |   |   |
| Approach Delay (s)                |   | 36.6  |   |   | 39.2  |   |   | 44.7  |   |   | 64.4  |   |   |   |
| Approach LOS                      |   | D   |   |   | D   |   |   | D   |   |   | E   |   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 55.0  |   |   |   |   |   |   |   |   |   | HCM 2000 Level of Service   | E |
| HCM 2000 Volume to Capacity ratio |   |   | 0.79  |   |   |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 140.0   |   |   |   |   |   |   |   |   | 13.3  |   |   |
| Intersection Capacity Utilization |   |   | 99.6%   |   |   |   |   |   |   |   |   |   | ICU Level of Service  | F |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |   |   |
| c                                 | Critical Lane Group   |   |   |   |   |   |   |   |   |   |   |   |   |   |

Summary Scenario Comparison Report (With Average Critical Delay)  
Future Volume Alternative

| Intersection                               | Existing PM |               |          |                    | Existing+P PM |               |          |                    | Bkgd PM |               |          |             |                    | Bkgd+P PM           |     |               |          |                    |
|--|-------------|---------------|----------|--------------------|---------------|---------------|----------|--------------------|---------|---------------|----------|-------------|--------------------|---------------------|-----|---------------|----------|--------------------|
|  | LOS         | Avg Del (sec) | Crit V/C | Avg Crit Del (sec) | LOS           | Avg Del (sec) | Crit V/C | Avg Crit Del (sec) | LOS     | Avg Del (sec) | Crit V/C | Crit Change | Avg Crit Del (sec) | Avg Crit Del Change | LOS | Avg Del (sec) | Crit V/C | Avg Crit Del (sec) |
| #4 Mathilda Ave & Almanor Ave              | C           | 27.2          | 0.460    | 22.2               | C             | 27.3          | 0.462    | 22.2               | D       | 41.1          | 0.774    | + 0.311     | 40.8               | + 18.6              | D   | 41.2          | 0.776    | 40.9               |
| #5 Mathilda Ave & San Aleso Ave            | B           | 12.9          | 0.387    | 9.2                | B             | 13.5          | 0.389    | 9.2                | B       | 16.3          | 0.502    | + 0.113     | 11.2               | + 2.1               | B   | 17.9          | 0.542    | 26.2               |
| #6 Mathilda Ave & Maude Ave                | D           | 44.9          | 0.667    | 43.4               | D             | 45.0          | 0.678    | 49.7               | E       | 63.1          | 1.006    | + 0.328     | 75.4               | + 25.7              | E   | 63.5          | 1.009    | 75.9               |
| #7 Mathilda Ave & Indio Ave                | C           | 23.7          | 0.729    | 24.2               | C             | 23.7          | 0.732    | 24.2               | C       | 26.2          | 0.914    | + 0.182     | 29.4               | + 5.2               | C   | 26.4          | 0.917    | 29.6               |
| #8 Mathilda Ave & California Ave           | C           | 28.5          | 0.755    | 27.7               | C             | 28.4          | 0.756    | 27.7               | D+      | 35.7          | 0.928    | + 0.172     | 38.3               | + 10.6              | D+  | 35.7          | 0.930    | 38.5               |
| #9 San Aleso Ave & Ahwanee Ave             | B           | 2.7           | 0.127    | 2.7                | B             | 3.9           | 0.156    | 3.9                | B       | 2.9           | 0.139    | - 0.017     | 2.9                | - 1.0               | B   | 4.1           | 0.169    | 4.1                |
| #10 Borregas Ave & Ahwanee Ave             | A           | 9.2           | 0.394    | 9.2                | A             | 9.4           | 0.422    | 9.4                | A       | 9.4           | 0.416    | - 0.005     | 9.4                | - 0.0               | A   | 9.6           | 0.444    | 9.6                |
| #11 Borregas Ave & Duane Ave               | B           | 2.7           | 0.087    | 2.7                | B             | 2.7           | 0.087    | 2.7                | B       | 2.6           | 0.090    | + 0.002     | 2.6                | - 0.1               | B   | 2.6           | 0.091    | 2.6                |
| #12 Borregas Ave/Sunnyvale Ave & Maude Ave | C           | 29.3          | 0.594    | 29.8               | C             | 29.4          | 0.597    | 30.0               | C       | 29.8          | 0.642    | + 0.045     | 30.5               | + 0.5               | C   | 29.9          | 0.645    | 30.7               |
| #13 Morse Ave & Ahwanee Ave                | B           | 3.8           | 0.118    | 3.8                | B             | 3.7           | 0.120    | 3.7                | B       | 3.7           | 0.119    | - 0.001     | 3.7                | - 0.0               | B   | 3.6           | 0.121    | 3.6                |
| #14 Morse Ave & Duane Ave                  | A           | 8.6           | 0.220    | 8.6                | A             | 8.6           | 0.222    | 8.6                | A       | 8.8           | 0.236    | + 0.014     | 8.8                | + 0.2               | A   | 8.8           | 0.238    | 8.8                |
| #15 Morse Ave & Maude Ave                  | C           | 2.8           | 0.109    | 2.8                | C             | 2.8           | 0.112    | 2.8                | C       | 2.9           | 0.129    | + 0.017     | 2.9                | + 0.1               | C   | 2.9           | 0.132    | 2.9                |
| #16 Fair Oaks Ave & Weddell Ave            | B           | 16.5          | 0.434    | 19.5               | B             | 16.5          | 0.435    | 19.6               | B-      | 18.2          | 0.604    | + 0.169     | 23.1               | + 3.6               | B-  | 18.2          | 0.605    | 23.2               |
| #17 Fair Oaks Ave & US 101 NB              | C           | 27.4          | 0.817    | 36.0               | C             | 27.4          | 0.818    | 36.0               | D       | 46.3          | 1.056    | + 0.238     | 77.6               | + 41.6              | D   | 46.4          | 1.056    | 77.9               |
| #18 Fair Oaks Ave & Ahwanee Ave            | B           | 13.9          | 0.622    | 11.7               | B             | 14.4          | 0.627    | 12.1               | B       | 14.8          | 0.711    | + 0.084     | 13.4               | + 1.3               | B   | 15.2          | 0.715    | 13.8               |
| #19 Fair Oaks Ave & Duane Ave              | C           | 31.4          | 0.622    | 27.6               | C             | 31.6          | 0.627    | 27.8               | C-      | 34.5          | 0.768    | + 0.140     | 45.0               | + 17.2              | C-  | 34.7          | 0.770    | 45.2               |
| #20 Fair Oaks Ave & Wolfe Rd               | B           | 14.1          | 0.479    | 23.3               | B             | 14.1          | 0.481    | 23.3               | B       | 15.6          | 0.579    | + 0.098     | 25.3               | + 2.1               | B   | 15.5          | 0.581    | 25.3               |
| #21 Fair Oaks Ave & Maude Ave              | C           | 31.2          | 0.591    | 30.6               | C             | 31.4          | 0.597    | 30.9               | C-      | 32.6          | 0.676    | + 0.079     | 32.9               | + 2.0               | C-  | 32.9          | 0.683    | 33.3               |
| #22 Wolfe Rd & Maude Ave                   | D           | 4.0           | 0.486    | 4.0                | D             | 4.1           | 0.489    | 4.1                | F       | 5.5           | 0.658    | + 0.170     | 5.5                | + 1.4               | F   | 5.5           | 0.661    | 5.5                |
| #23 Wolfe Rd & Arques Ave                  | D           | 40.4          | 0.413    | 37.6               | D             | 40.3          | 0.414    | 37.5               | D       | 41.0          | 0.480    | + 0.066     | 39.7               | + 2.1               | D   | 40.9          | 0.481    | 39.6               |
| #24 Wolfe Rd & Central Expwy Ramps         | E           | 62.8          | 0.861    | 71.8               | E             | 63.1          | 0.865    | 72.2               | E       | 73.9          | 0.953    | + 0.088     | 89.1               | + 16.9              | E   | 74.5          | 0.957    | 89.8               |

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing PM

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 31   | 1262 | 71   | 155  | 2170 | 76   | 317  | 94   | 50   | 31   | 10   | 94   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 31   | 1262 | 71   | 155  | 2170 | 76   | 317  | 94   | 50   | 31   | 10   | 94   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 31   | 1262 | 71   | 155  | 2170 | 76   | 317  | 94   | 50   | 31   | 10   | 94   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 31   | 1262 | 71   | 155  | 2170 | 76   | 317  | 94   | 50   | 31   | 10   | 94   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 31   | 1262 | 71   | 155  | 2170 | 76   | 317  | 94   | 50   | 31   | 10   | 94   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 31   | 1262 | 71   | 155  | 2170 | 76   | 317  | 94   | 50   | 31   | 10   | 94   |

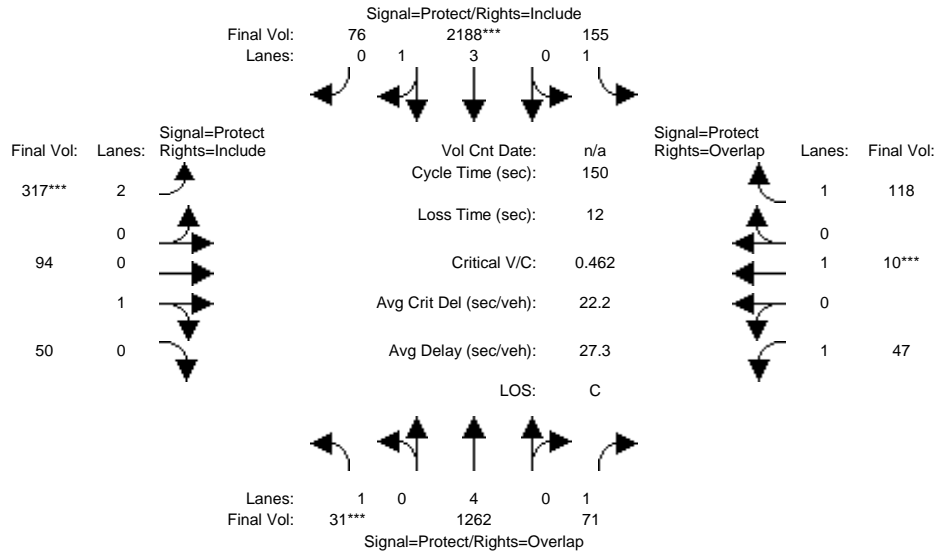
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.86 | 0.14 | 2.00 | 0.65 | 0.35 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 7246 | 254  | 3150 | 1175 | 625  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.17 | 0.04 | 0.09 | 0.30 | 0.30 | 0.10 | 0.08 | 0.08 | 0.02 | 0.01 | 0.05 |
| Crit Moves:               | ***  |      |      |      | ***  |      | ***  |      |      |      | ***  |      |
| Green Time:               | 7.0  | 63.6 | 78.5 | 33.9 | 90.6 | 90.6 | 30.4 | 25.5 | 25.5 | 14.9 | 10.0 | 43.9 |
| Volume/Cap:               | 0.38 | 0.39 | 0.08 | 0.39 | 0.50 | 0.50 | 0.50 | 0.47 | 0.47 | 0.18 | 0.08 | 0.18 |
| Uniform Del:              | 69.4 | 29.8 | 17.7 | 49.3 | 16.8 | 16.8 | 53.0 | 56.1 | 56.1 | 61.9 | 65.7 | 39.6 |
| IncrcmntDel:              | 2.9  | 0.1  | 0.0  | 0.6  | 0.1  | 0.1  | 0.6  | 1.1  | 1.1  | 0.5  | 0.3  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 72.3 | 29.9 | 17.8 | 49.9 | 16.9 | 16.9 | 53.6 | 57.3 | 57.3 | 62.4 | 65.9 | 39.8 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 72.3 | 29.9 | 17.8 | 49.9 | 16.9 | 16.9 | 53.6 | 57.3 | 57.3 | 62.4 | 65.9 | 39.8 |
| LOS by Move:              | E    | C    | B    | D    | B    | B    | D-   | E+   | E+   | E    | E    | D    |
| HCM2kAvgQ:                | 1    | 10   | 2    | 7    | 14   | 14   | 8    | 7    | 7    | 2    | 0    | 3    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P PM

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 31   | 1262 | 71   | 155  | 2170 | 76   | 317  | 94   | 50   | 31   | 10   | 94   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 31   | 1262 | 71   | 155  | 2170 | 76   | 317  | 94   | 50   | 31   | 10   | 94   |
| Added Vol:     | 0    | 0    | 0    | 0    | 18   | 0    | 0    | 0    | 0    | 16   | 0    | 24   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 31   | 1262 | 71   | 155  | 2188 | 76   | 317  | 94   | 50   | 47   | 10   | 118  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 31   | 1262 | 71   | 155  | 2188 | 76   | 317  | 94   | 50   | 47   | 10   | 118  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 31   | 1262 | 71   | 155  | 2188 | 76   | 317  | 94   | 50   | 47   | 10   | 118  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 31   | 1262 | 71   | 155  | 2188 | 76   | 317  | 94   | 50   | 47   | 10   | 118  |

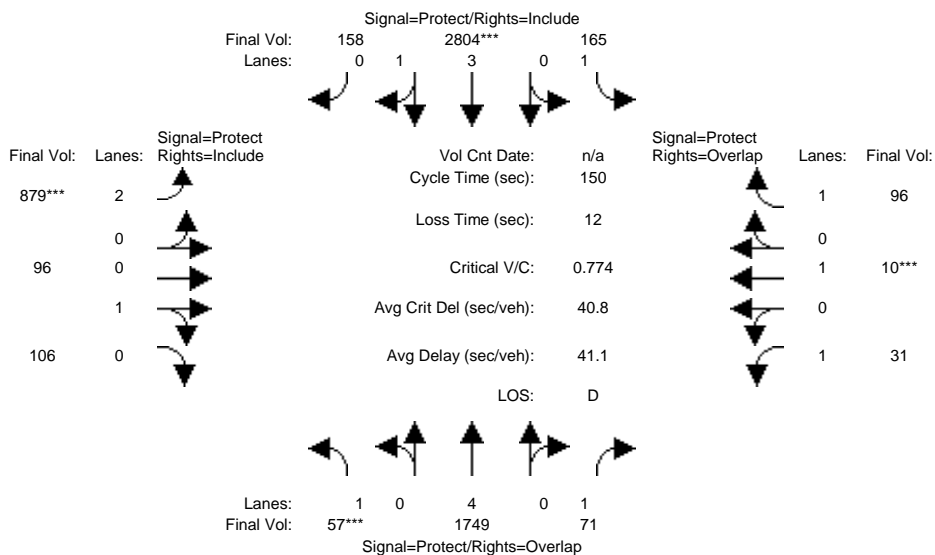
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.86 | 0.14 | 2.00 | 0.65 | 0.35 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 7248 | 252  | 3150 | 1175 | 625  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.17 | 0.04 | 0.09 | 0.30 | 0.30 | 0.10 | 0.08 | 0.08 | 0.03 | 0.01 | 0.07 |
| Crit Moves:               | ***  |      |      |      | ***  |      | ***  |      |      |      | ***  |      |
| Green Time:               | 7.0  | 63.7 | 78.6 | 34.0 | 90.7 | 90.7 | 30.3 | 25.4 | 25.4 | 14.8 | 10.0 | 44.0 |
| Volume/Cap:               | 0.38 | 0.39 | 0.08 | 0.39 | 0.50 | 0.50 | 0.50 | 0.47 | 0.47 | 0.27 | 0.08 | 0.23 |
| Uniform Del:              | 69.4 | 29.7 | 17.7 | 49.2 | 16.8 | 16.8 | 53.1 | 56.2 | 56.2 | 62.6 | 65.7 | 40.2 |
| IncrcmntDel:              | 2.9  | 0.1  | 0.0  | 0.6  | 0.1  | 0.1  | 0.6  | 1.2  | 1.2  | 0.9  | 0.3  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 72.3 | 29.8 | 17.8 | 49.8 | 16.8 | 16.8 | 53.8 | 57.4 | 57.4 | 63.4 | 65.9 | 40.4 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 72.3 | 29.8 | 17.8 | 49.8 | 16.8 | 16.8 | 53.8 | 57.4 | 57.4 | 63.4 | 65.9 | 40.4 |
| LOS by Move:              | E    | C    | B    | D    | B    | B    | D-   | E+   | E+   | E    | E    | D    |
| HCM2kAvgQ:                | 1    | 10   | 2    | 7    | 15   | 15   | 8    | 7    | 7    | 2    | 0    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 57   | 1749 | 71   | 165  | 2804 | 158  | 879  | 96   | 106  | 31   | 10   | 96   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 57   | 1749 | 71   | 165  | 2804 | 158  | 879  | 96   | 106  | 31   | 10   | 96   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 57   | 1749 | 71   | 165  | 2804 | 158  | 879  | 96   | 106  | 31   | 10   | 96   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 57   | 1749 | 71   | 165  | 2804 | 158  | 879  | 96   | 106  | 31   | 10   | 96   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 57   | 1749 | 71   | 165  | 2804 | 158  | 879  | 96   | 106  | 31   | 10   | 96   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 57   | 1749 | 71   | 165  | 2804 | 158  | 879  | 96   | 106  | 31   | 10   | 96   |

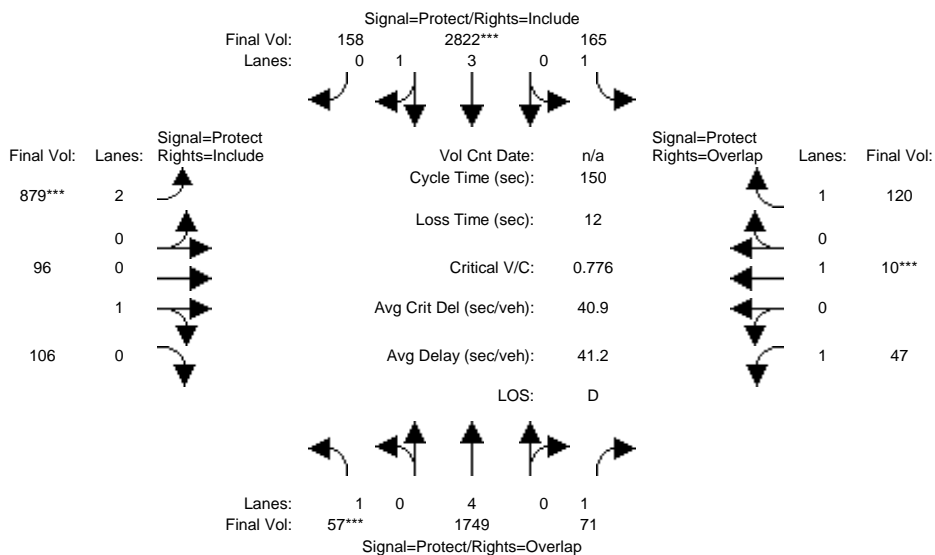
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.78 | 0.22 | 2.00 | 0.48 | 0.52 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 7099 | 400  | 3150 | 855  | 945  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.23 | 0.04 | 0.09 | 0.39 | 0.39 | 0.28 | 0.11 | 0.11 | 0.02 | 0.01 | 0.05 |
| Crit Moves:               | ***  |      |      |      | ***  |      | ***  |      |      |      | ***  |      |
| Green Time:               | 7.0  | 55.3 | 72.9 | 22.6 | 70.9 | 70.9 | 50.1 | 42.4 | 42.4 | 17.7 | 10.0 | 32.6 |
| Volume/Cap:               | 0.70 | 0.62 | 0.08 | 0.62 | 0.84 | 0.84 | 0.84 | 0.40 | 0.40 | 0.15 | 0.08 | 0.25 |
| Uniform Del:              | 70.5 | 38.9 | 20.6 | 59.7 | 34.5 | 34.5 | 46.1 | 43.4 | 43.4 | 59.4 | 65.7 | 48.6 |
| IncrcmntDel:              | 23.3 | 0.4  | 0.0  | 4.6  | 1.9  | 1.9  | 5.9  | 0.5  | 0.5  | 0.3  | 0.3  | 0.4  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 93.8 | 39.3 | 20.7 | 64.3 | 36.3 | 36.3 | 52.1 | 43.9 | 43.9 | 59.8 | 65.9 | 48.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 93.8 | 39.3 | 20.7 | 64.3 | 36.3 | 36.3 | 52.1 | 43.9 | 43.9 | 59.8 | 65.9 | 48.9 |
| LOS by Move:              | F    | D    | C+   | E    | D+   | D+   | D-   | D    | D    | E+   | E    | D    |
| HCM2kAvgQ:                | 3    | 16   | 2    | 8    | 31   | 31   | 24   | 8    | 8    | 1    | 0    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P PM

Intersection #4: Mathilda Ave & Almanor Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Almanor Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 57   | 1749 | 71   | 165  | 2804 | 158  | 879  | 96   | 106  | 31   | 10   | 96   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 57   | 1749 | 71   | 165  | 2804 | 158  | 879  | 96   | 106  | 31   | 10   | 96   |
| Added Vol:     | 0    | 0    | 0    | 0    | 18   | 0    | 0    | 0    | 0    | 16   | 0    | 24   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 57   | 1749 | 71   | 165  | 2822 | 158  | 879  | 96   | 106  | 47   | 10   | 120  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 57   | 1749 | 71   | 165  | 2822 | 158  | 879  | 96   | 106  | 47   | 10   | 120  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 57   | 1749 | 71   | 165  | 2822 | 158  | 879  | 96   | 106  | 47   | 10   | 120  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 57   | 1749 | 71   | 165  | 2822 | 158  | 879  | 96   | 106  | 47   | 10   | 120  |

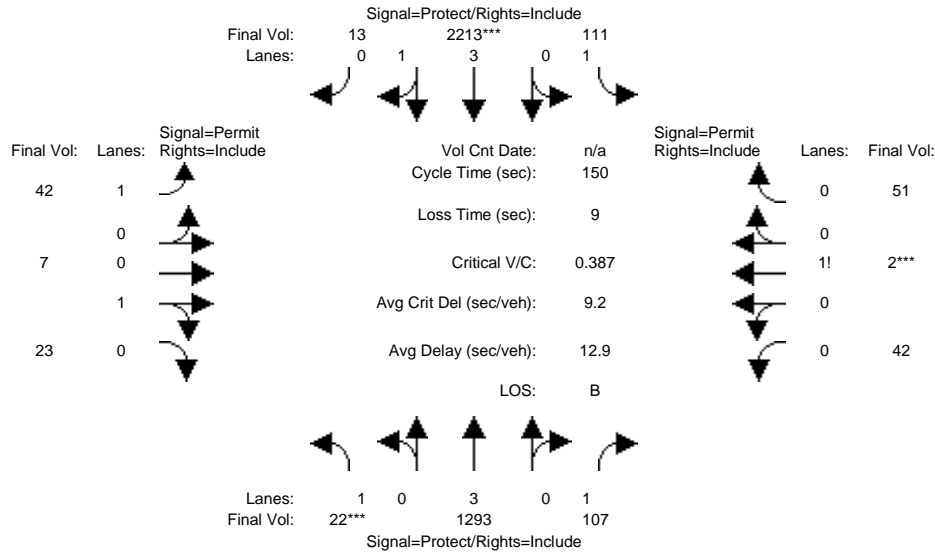
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 4.00 | 1.00 | 1.00 | 3.78 | 0.22 | 2.00 | 0.48 | 0.52 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 7600 | 1750 | 1750 | 7102 | 398  | 3150 | 855  | 945  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.23 | 0.04 | 0.09 | 0.40 | 0.40 | 0.28 | 0.11 | 0.11 | 0.03 | 0.01 | 0.07 |
| Crit Moves:               | ***  |      |      |      | ***  |      | ***  |      |      |      | ***  |      |
| Green Time:               | 7.0  | 55.4 | 73.0 | 22.7 | 71.1 | 71.1 | 49.9 | 42.3 | 42.3 | 17.6 | 10.0 | 32.7 |
| Volume/Cap:               | 0.70 | 0.62 | 0.08 | 0.62 | 0.84 | 0.84 | 0.84 | 0.40 | 0.40 | 0.23 | 0.08 | 0.31 |
| Uniform Del:              | 70.5 | 38.8 | 20.6 | 59.6 | 34.4 | 34.4 | 46.3 | 43.5 | 43.5 | 60.0 | 65.7 | 49.2 |
| IncrcmntDel:              | 23.3 | 0.4  | 0.0  | 4.6  | 1.9  | 1.9  | 6.1  | 0.5  | 0.5  | 0.6  | 0.3  | 0.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 93.8 | 39.2 | 20.6 | 64.2 | 36.3 | 36.3 | 52.4 | 44.1 | 44.1 | 60.6 | 65.9 | 49.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 93.8 | 39.2 | 20.6 | 64.2 | 36.3 | 36.3 | 52.4 | 44.1 | 44.1 | 60.6 | 65.9 | 49.7 |
| LOS by Move:              | F    | D    | C+   | E    | D+   | D+   | D-   | D    | D    | E    | E    | D    |
| HCM2kAvgQ:                | 3    | 16   | 2    | 8    | 32   | 32   | 24   | 8    | 8    | 2    | 0    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 22          | 1293 | 107  | 111         | 2213 | 13   | 42         | 7    | 23   | 42         | 2    | 51   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 22          | 1293 | 107  | 111         | 2213 | 13   | 42         | 7    | 23   | 42         | 2    | 51   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 22          | 1293 | 107  | 111         | 2213 | 13   | 42         | 7    | 23   | 42         | 2    | 51   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 22          | 1293 | 107  | 111         | 2213 | 13   | 42         | 7    | 23   | 42         | 2    | 51   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 22          | 1293 | 107  | 111         | 2213 | 13   | 42         | 7    | 23   | 42         | 2    | 51   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 22          | 1293 | 107  | 111         | 2213 | 13   | 42         | 7    | 23   | 42         | 2    | 51   |

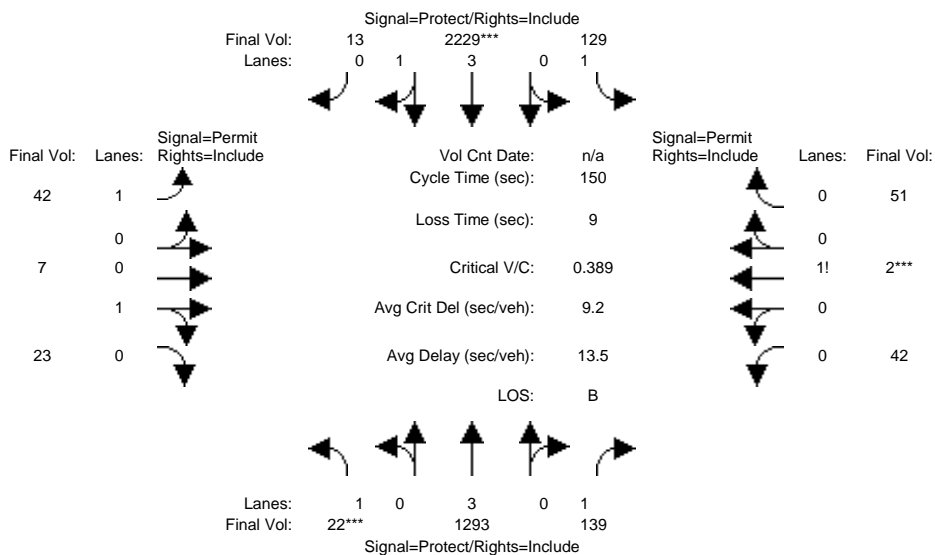
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 0.99 | 0.95 | 0.92       | 0.95 | 0.95 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.98 | 0.02 | 1.00       | 0.23 | 0.77 | 0.44       | 0.02 | 0.54 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 7456 | 44   | 1750       | 420  | 1380 | 774        | 37   | 939  |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |       | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|-------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.01        | 0.23 | 0.06 | 0.06        | 0.30 | 0.30  | 0.02       | 0.02 | 0.02 | 0.05       | 0.05 | 0.05 |
| Crit Moves:               | ****        |      |      |             | **** |       |            |      |      |            | **** |      |
| Green Time:               | 7.0         | 94.0 | 94.0 | 26.3        | 113  | 113.3 | 20.7       | 20.7 | 20.7 | 20.7       | 20.7 | 20.7 |
| Volume/Cap:               | 0.27        | 0.36 | 0.10 | 0.36        | 0.39 | 0.39  | 0.17       | 0.12 | 0.12 | 0.39       | 0.39 | 0.39 |
| Uniform Del:              | 69.0        | 13.5 | 11.1 | 54.5        | 6.4  | 6.4   | 57.1       | 56.7 | 56.7 | 58.9       | 58.9 | 58.9 |
| IncrcmntDel:              | 1.8         | 0.1  | 0.0  | 0.7         | 0.0  | 0.0   | 0.3        | 0.2  | 0.2  | 1.1        | 1.1  | 1.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0   | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 70.8        | 13.6 | 11.2 | 55.2        | 6.4  | 6.4   | 57.4       | 56.9 | 56.9 | 60.0       | 60.0 | 60.0 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 70.8        | 13.6 | 11.2 | 55.2        | 6.4  | 6.4   | 57.4       | 56.9 | 56.9 | 60.0       | 60.0 | 60.0 |
| LOS by Move:              | E           | B    | B+   | E+          | A    | A     | E+         | E+   | E+   | E+         | E+   | E+   |
| HCM2kAvgQ:                | 1           | 9    | 2    | 5           | 9    | 9     | 2          | 1    | 1    | 5          | 5    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P PM

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 22   | 1293 | 107  | 111  | 2213 | 13   | 42   | 7    | 23   | 42   | 2    | 51   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 22   | 1293 | 107  | 111  | 2213 | 13   | 42   | 7    | 23   | 42   | 2    | 51   |
| Added Vol:     | 0    | 0    | 32   | 18   | 16   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 22   | 1293 | 139  | 129  | 2229 | 13   | 42   | 7    | 23   | 42   | 2    | 51   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 22   | 1293 | 139  | 129  | 2229 | 13   | 42   | 7    | 23   | 42   | 2    | 51   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 22   | 1293 | 139  | 129  | 2229 | 13   | 42   | 7    | 23   | 42   | 2    | 51   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 22   | 1293 | 139  | 129  | 2229 | 13   | 42   | 7    | 23   | 42   | 2    | 51   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.92 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.98 | 0.02 | 1.00 | 0.23 | 0.77 | 0.44 | 0.02 | 0.54 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 7456 | 43   | 1750 | 420  | 1380 | 774  | 37   | 939  |

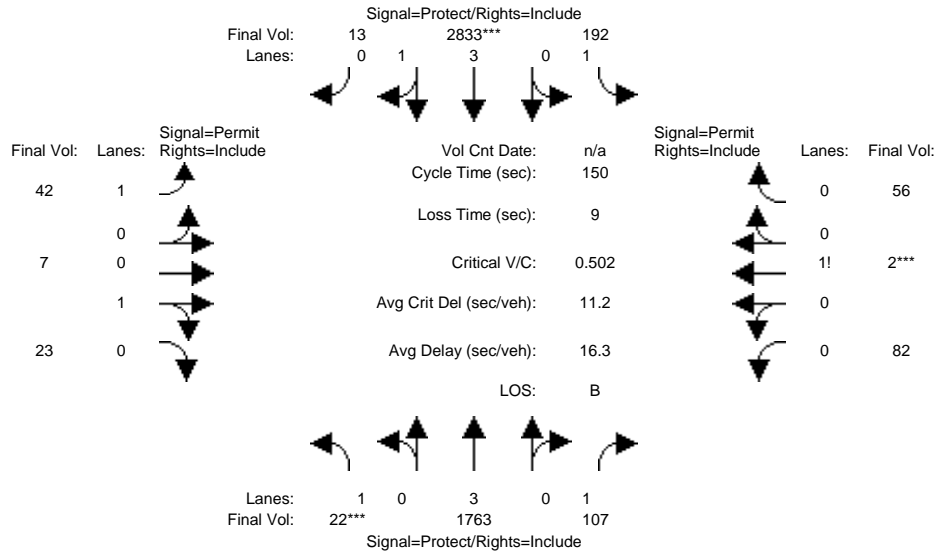
| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.23 | 0.08 | 0.07 | 0.30 | 0.30  | 0.02 | 0.02 | 0.02 | 0.05 | 0.05 | 0.05 |
| Crit Moves:               | **** |      |      |      | **** |       |      |      |      |      | **** |      |
| Green Time:               | 7.0  | 90.9 | 90.9 | 29.5 | 113  | 113.4 | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 |
| Volume/Cap:               | 0.27 | 0.37 | 0.13 | 0.37 | 0.40 | 0.40  | 0.17 | 0.12 | 0.12 | 0.40 | 0.40 | 0.40 |
| Uniform Del:              | 69.0 | 15.1 | 12.7 | 52.2 | 6.4  | 6.4   | 57.2 | 56.8 | 56.8 | 59.0 | 59.0 | 59.0 |
| IncrcmntDel:              | 1.8  | 0.1  | 0.1  | 0.7  | 0.0  | 0.0   | 0.3  | 0.2  | 0.2  | 1.1  | 1.1  | 1.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 70.8 | 15.1 | 12.7 | 52.9 | 6.4  | 6.4   | 57.5 | 57.0 | 57.0 | 60.1 | 60.1 | 60.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 70.8 | 15.1 | 12.7 | 52.9 | 6.4  | 6.4   | 57.5 | 57.0 | 57.0 | 60.1 | 60.1 | 60.1 |
| LOS by Move:              | E    | B    | B    | D-   | A    | A     | E+   | E+   | E+   | E    | E    | E    |
| HCM2kAvgQ:                | 1    | 10   | 3    | 5    | 9    | 9     | 2    | 1    | 1    | 5    | 5    | 5    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 22          | 1763 | 107  | 192         | 2833 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 22          | 1763 | 107  | 192         | 2833 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 22          | 1763 | 107  | 192         | 2833 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 22          | 1763 | 107  | 192         | 2833 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 22          | 1763 | 107  | 192         | 2833 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 22          | 1763 | 107  | 192         | 2833 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |

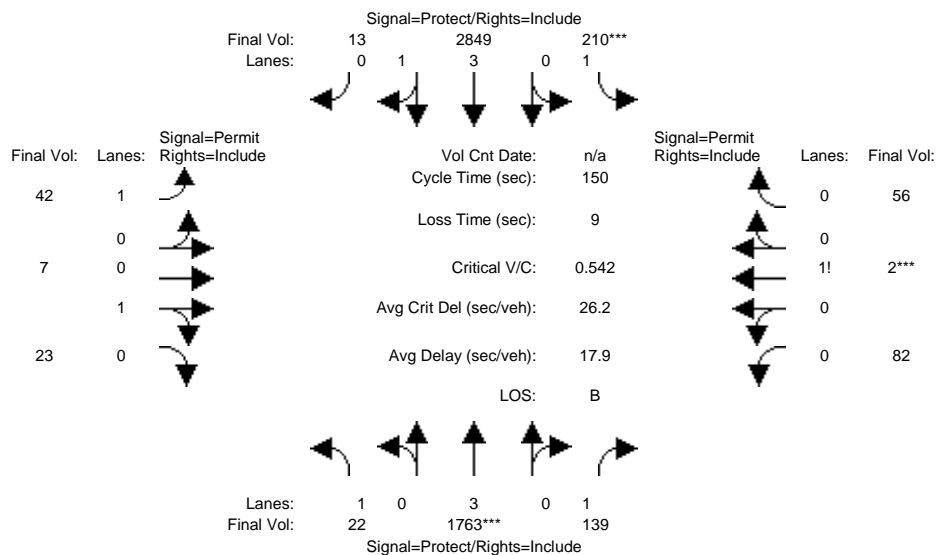
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 0.99 | 0.95 | 0.92       | 0.95 | 0.95 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.98 | 0.02 | 1.00       | 0.23 | 0.77 | 0.59       | 0.01 | 0.40 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 7466 | 34   | 1750       | 420  | 1380 | 1025       | 25   | 700  |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |       | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|-------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.01        | 0.31 | 0.06 | 0.11        | 0.38 | 0.38  | 0.02       | 0.02 | 0.02 | 0.08       | 0.08 | 0.08 |
| Crit Moves:               | ****        |      |      |             | **** |       |            |      |      |            | **** |      |
| Green Time:               | 7.0         | 86.9 | 86.9 | 30.8        | 111  | 110.7 | 23.3       | 23.3 | 23.3 | 23.3       | 23.3 | 23.3 |
| Volume/Cap:               | 0.27        | 0.53 | 0.11 | 0.53        | 0.51 | 0.51  | 0.15       | 0.11 | 0.11 | 0.51       | 0.51 | 0.51 |
| Uniform Del:              | 69.0        | 19.2 | 14.2 | 53.2        | 8.3  | 8.3   | 54.8       | 54.4 | 54.4 | 58.1       | 58.1 | 58.1 |
| IncrcmntDel:              | 1.8         | 0.2  | 0.0  | 1.6         | 0.1  | 0.1   | 0.3        | 0.2  | 0.2  | 1.7        | 1.7  | 1.7  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0   | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 70.8        | 19.4 | 14.2 | 54.8        | 8.4  | 8.4   | 55.1       | 54.6 | 54.6 | 59.8       | 59.8 | 59.8 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 70.8        | 19.4 | 14.2 | 54.8        | 8.4  | 8.4   | 55.1       | 54.6 | 54.6 | 59.8       | 59.8 | 59.8 |
| LOS by Move:              | E           | B-   | B    | D-          | A    | A     | E+         | D-   | D-   | E+         | E+   | E+   |
| HCM2kAvgQ:                | 1           | 15   | 2    | 8           | 13   | 13    | 2          | 1    | 1    | 7          | 7    | 7    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P PM

Intersection #5: Mathilda Ave & San Aleso Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | San Aleso Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|---------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound    |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L             | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10            | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0           | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 22          | 1763 | 107  | 192         | 2833 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 22          | 1763 | 107  | 192         | 2833 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| Added Vol:     | 0           | 0    | 32   | 18          | 16   | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 22          | 1763 | 139  | 210         | 2849 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 22          | 1763 | 139  | 210         | 2849 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 22          | 1763 | 139  | 210         | 2849 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 22          | 1763 | 139  | 210         | 2849 | 13   | 42         | 7    | 23   | 82         | 2    | 56   |

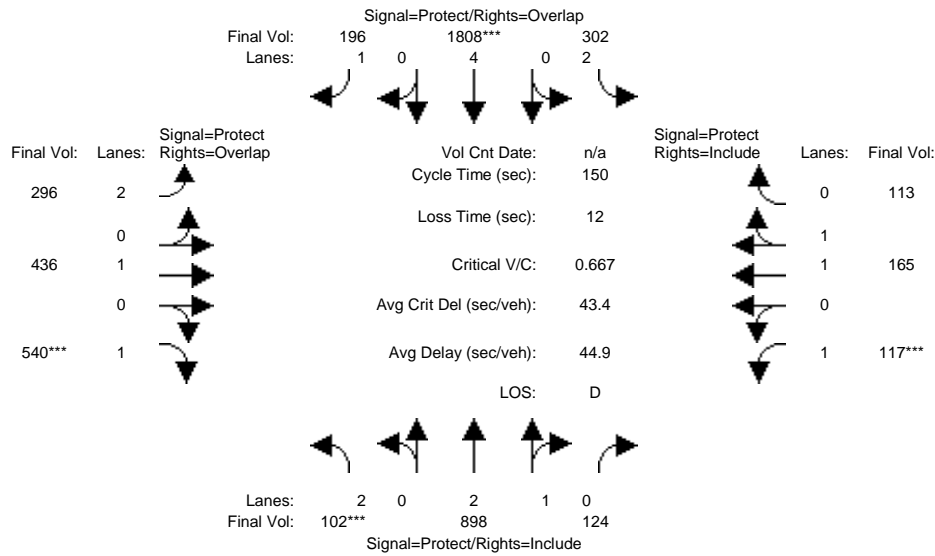
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 0.99 | 0.95 | 0.92       | 0.95 | 0.95 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.98 | 0.02 | 1.00       | 0.23 | 0.77 | 0.59       | 0.01 | 0.40 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 7466 | 34   | 1750       | 420  | 1380 | 1025       | 25   | 700  |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |       | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|-------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.01        | 0.31 | 0.08 | 0.12        | 0.38 | 0.38  | 0.02       | 0.02 | 0.02 | 0.08       | 0.08 | 0.08 |
| Crit Moves:               | ****        |      |      | ****        |      |       |            |      |      | ****       |      |      |
| Green Time:               | 13.0        | 85.6 | 85.6 | 33.2        | 106  | 105.9 | 22.1       | 22.1 | 22.1 | 22.1       | 22.1 | 22.1 |
| Volume/Cap:               | 0.15        | 0.54 | 0.14 | 0.54        | 0.54 | 0.54  | 0.16       | 0.11 | 0.11 | 0.54       | 0.54 | 0.54 |
| Uniform Del:              | 63.4        | 20.0 | 15.0 | 51.7        | 10.5 | 10.5  | 55.8       | 55.4 | 55.4 | 59.2       | 59.2 | 59.2 |
| IncrcmntDel:              | 0.4         | 0.2  | 0.1  | 1.6         | 0.1  | 0.1   | 0.3        | 0.2  | 0.2  | 2.3        | 2.3  | 2.3  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0   | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 63.9        | 20.2 | 15.1 | 53.2        | 10.6 | 10.6  | 56.1       | 55.6 | 55.6 | 61.6       | 61.6 | 61.6 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 63.9        | 20.2 | 15.1 | 53.2        | 10.6 | 10.6  | 56.1       | 55.6 | 55.6 | 61.6       | 61.6 | 61.6 |
| LOS by Move:              | E           | C+   | B    | D-          | B+   | B+    | E+         | E+   | E+   | E          | E    | E    |
| HCM2kAvgQ:                | 1           | 16   | 3    | 9           | 15   | 15    | 2          | 1    | 1    | 7          | 7    | 7    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 102  | 898  | 124  | 302  | 1808 | 196  | 296  | 436  | 540  | 117  | 165  | 113  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 102  | 898  | 124  | 302  | 1808 | 196  | 296  | 436  | 540  | 117  | 165  | 113  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 102  | 898  | 124  | 302  | 1808 | 196  | 296  | 436  | 540  | 117  | 165  | 113  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 102  | 898  | 124  | 302  | 1808 | 196  | 296  | 436  | 540  | 117  | 165  | 113  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 102  | 898  | 124  | 302  | 1808 | 196  | 296  | 436  | 540  | 117  | 165  | 113  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 102  | 898  | 124  | 302  | 1808 | 196  | 296  | 436  | 540  | 117  | 165  | 113  |

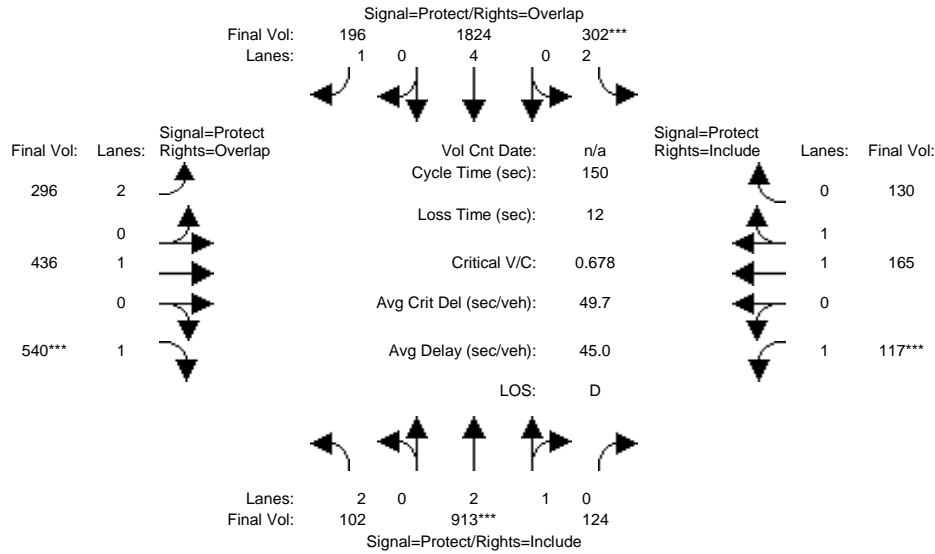
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.62 | 0.38 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.16 | 0.84 |
| Final Sat.:             | 3150 | 4920 | 679  | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 2195 | 1503 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.18 | 0.18 | 0.10 | 0.24 | 0.11 | 0.09 | 0.23 | 0.31 | 0.07 | 0.08 | 0.08 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      | **** | **** |      |      |
| Green Time:               | 7.3  | 39.9 | 39.9 | 20.9 | 53.5 | 94.6 | 41.1 | 58.9 | 66.2 | 15.0 | 32.9 | 32.9 |
| Volume/Cap:               | 0.67 | 0.69 | 0.69 | 0.69 | 0.67 | 0.18 | 0.34 | 0.58 | 0.70 | 0.67 | 0.34 | 0.34 |
| Uniform Del:              | 70.2 | 49.5 | 49.5 | 61.4 | 40.7 | 11.5 | 43.6 | 35.9 | 33.8 | 65.1 | 49.4 | 49.4 |
| IncrcmntDel:              | 10.7 | 1.4  | 1.4  | 4.5  | 0.6  | 0.1  | 0.2  | 1.2  | 2.9  | 9.4  | 0.3  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 80.9 | 50.8 | 50.8 | 65.9 | 41.4 | 11.6 | 43.9 | 37.1 | 36.7 | 74.5 | 49.7 | 49.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 80.9 | 50.8 | 50.8 | 65.9 | 41.4 | 11.6 | 43.9 | 37.1 | 36.7 | 74.5 | 49.7 | 49.7 |
| LOS by Move:              | F    | D    | D    | E    | D    | B+   | D    | D+   | D+   | E    | D    | D    |
| HCM2kAvgQ:                | 3    | 14   | 14   | 8    | 17   | 4    | 6    | 16   | 22   | 7    | 6    | 6    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P PM

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 102  | 898  | 124  | 302  | 1808 | 196  | 296  | 436  | 540  | 117  | 165  | 113  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 102  | 898  | 124  | 302  | 1808 | 196  | 296  | 436  | 540  | 117  | 165  | 113  |
| Added Vol:     | 0    | 15   | 0    | 0    | 16   | 0    | 0    | 0    | 0    | 0    | 0    | 17   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 102  | 913  | 124  | 302  | 1824 | 196  | 296  | 436  | 540  | 117  | 165  | 130  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 102  | 913  | 124  | 302  | 1824 | 196  | 296  | 436  | 540  | 117  | 165  | 130  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 102  | 913  | 124  | 302  | 1824 | 196  | 296  | 436  | 540  | 117  | 165  | 130  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 102  | 913  | 124  | 302  | 1824 | 196  | 296  | 436  | 540  | 117  | 165  | 130  |

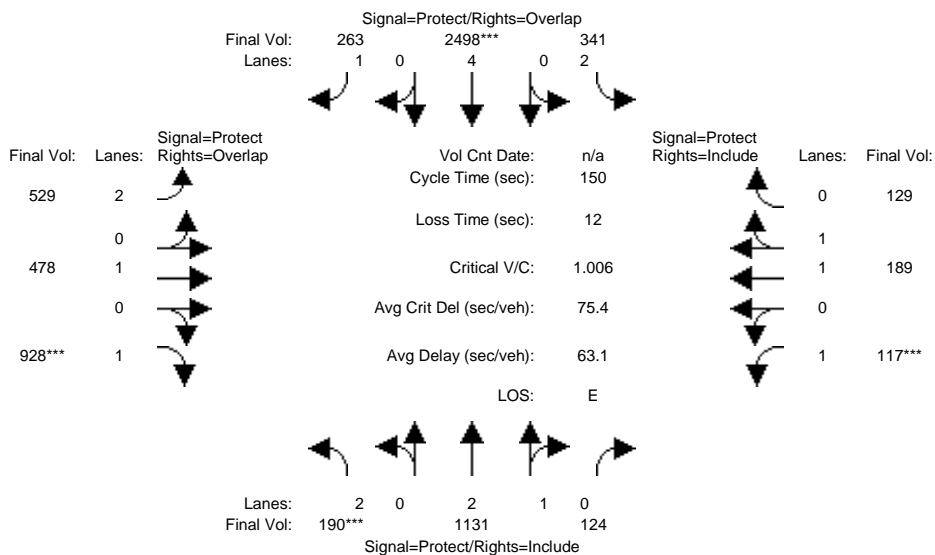
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.63 | 0.37 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.09 | 0.91 |
| Final Sat.:             | 3150 | 4929 | 670  | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 2068 | 1630 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.19 | 0.19 | 0.10 | 0.24 | 0.11 | 0.09 | 0.23 | 0.31 | 0.07 | 0.08 | 0.08 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 10.1 | 41.0 | 41.0 | 21.2 | 52.0 | 91.3 | 39.3 | 57.9 | 68.0 | 14.8 | 33.4 | 33.4 |
| Volume/Cap:               | 0.48 | 0.68 | 0.68 | 0.68 | 0.69 | 0.18 | 0.36 | 0.59 | 0.68 | 0.68 | 0.36 | 0.36 |
| Uniform Del:              | 67.4 | 48.6 | 48.6 | 61.2 | 42.1 | 12.9 | 45.1 | 36.7 | 32.4 | 65.3 | 49.3 | 49.3 |
| IncrcmntDel:              | 1.7  | 1.2  | 1.2  | 4.2  | 0.8  | 0.1  | 0.3  | 1.3  | 2.4  | 10.4 | 0.3  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 69.1 | 49.9 | 49.9 | 65.4 | 42.9 | 13.0 | 45.3 | 38.0 | 34.8 | 75.7 | 49.5 | 49.5 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 69.1 | 49.9 | 49.9 | 65.4 | 42.9 | 13.0 | 45.3 | 38.0 | 34.8 | 75.7 | 49.5 | 49.5 |
| LOS by Move:              | E    | D    | D    | E    | D    | B    | D    | D+   | C-   | E-   | D    | D    |
| HCM2kAvgQ:                | 3    | 14   | 14   | 8    | 18   | 4    | 7    | 16   | 21   | 7    | 6    | 6    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 190  | 1131 | 124  | 341  | 2498 | 263  | 529  | 478  | 928  | 117  | 189  | 129  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 190  | 1131 | 124  | 341  | 2498 | 263  | 529  | 478  | 928  | 117  | 189  | 129  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 190  | 1131 | 124  | 341  | 2498 | 263  | 529  | 478  | 928  | 117  | 189  | 129  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 190  | 1131 | 124  | 341  | 2498 | 263  | 529  | 478  | 928  | 117  | 189  | 129  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 190  | 1131 | 124  | 341  | 2498 | 263  | 529  | 478  | 928  | 117  | 189  | 129  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 190  | 1131 | 124  | 341  | 2498 | 263  | 529  | 478  | 928  | 117  | 189  | 129  |

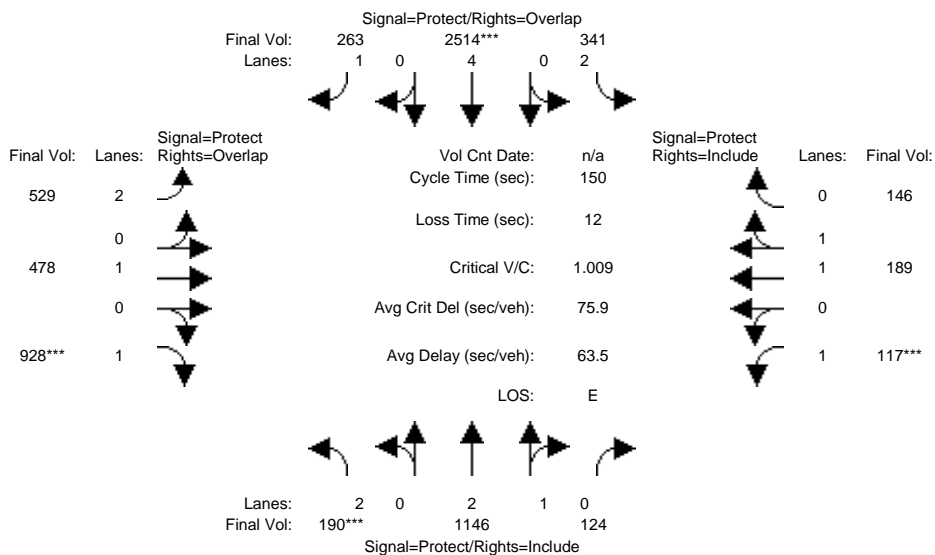
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.69 | 0.31 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.17 | 0.83 |
| Final Sat.:             | 3150 | 5046 | 553  | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 2198 | 1500 |

| Capacity Analysis Module: |       |      |      |      |      |       |      |      |      |       |      |      |
|---------------------------|-------|------|------|------|------|-------|------|------|------|-------|------|------|
| Vol/Sat:                  | 0.06  | 0.22 | 0.22 | 0.11 | 0.33 | 0.15  | 0.17 | 0.25 | 0.53 | 0.07  | 0.09 | 0.09 |
| Crit Moves:               | ****  |      |      |      | **** |       |      |      | **** | ****  |      |      |
| Green Time:               | 9.0   | 39.1 | 39.1 | 18.9 | 49.0 | 101.9 | 52.9 | 70.1 | 79.0 | 10.0  | 27.1 | 27.1 |
| Volume/Cap:               | 1.01  | 0.86 | 0.86 | 0.86 | 1.01 | 0.22  | 0.48 | 0.54 | 1.01 | 1.01  | 0.48 | 0.48 |
| Uniform Del:              | 70.5  | 52.8 | 52.8 | 64.3 | 50.5 | 9.1   | 37.8 | 28.5 | 35.5 | 70.0  | 55.1 | 55.1 |
| IncrcmntDel:              | 67.1  | 5.4  | 5.4  | 17.0 | 19.6 | 0.1   | 0.3  | 0.7  | 31.2 | 85.2  | 0.5  | 0.5  |
| InitQueueDel:             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Delay Adj:                | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Delay/Veh:                | 137.7 | 58.2 | 58.2 | 81.3 | 70.1 | 9.2   | 38.1 | 29.1 | 66.7 | 155.2 | 55.6 | 55.6 |
| User DelAdj:              | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| AdjDel/Veh:               | 137.7 | 58.2 | 58.2 | 81.3 | 70.1 | 9.2   | 38.1 | 29.1 | 66.7 | 155.2 | 55.6 | 55.6 |
| LOS by Move:              | F     | E+   | E+   | F    | E    | A     | D+   | C    | E    | F     | E+   | E+   |
| HCM2kAvgQ:                | 7     | 20   | 20   | 10   | 33   | 5     | 11   | 15   | 54   | 9     | 7    | 7    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P PM

Intersection #6: Mathilda Ave & Maude Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 190  | 1131 | 124  | 341  | 2498 | 263  | 529  | 478  | 928  | 117  | 189  | 129  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 190  | 1131 | 124  | 341  | 2498 | 263  | 529  | 478  | 928  | 117  | 189  | 129  |
| Added Vol:     | 0    | 15   | 0    | 0    | 16   | 0    | 0    | 0    | 0    | 0    | 0    | 17   |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 190  | 1146 | 124  | 341  | 2514 | 263  | 529  | 478  | 928  | 117  | 189  | 146  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 190  | 1146 | 124  | 341  | 2514 | 263  | 529  | 478  | 928  | 117  | 189  | 146  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 190  | 1146 | 124  | 341  | 2514 | 263  | 529  | 478  | 928  | 117  | 189  | 146  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 190  | 1146 | 124  | 341  | 2514 | 263  | 529  | 478  | 928  | 117  | 189  | 146  |

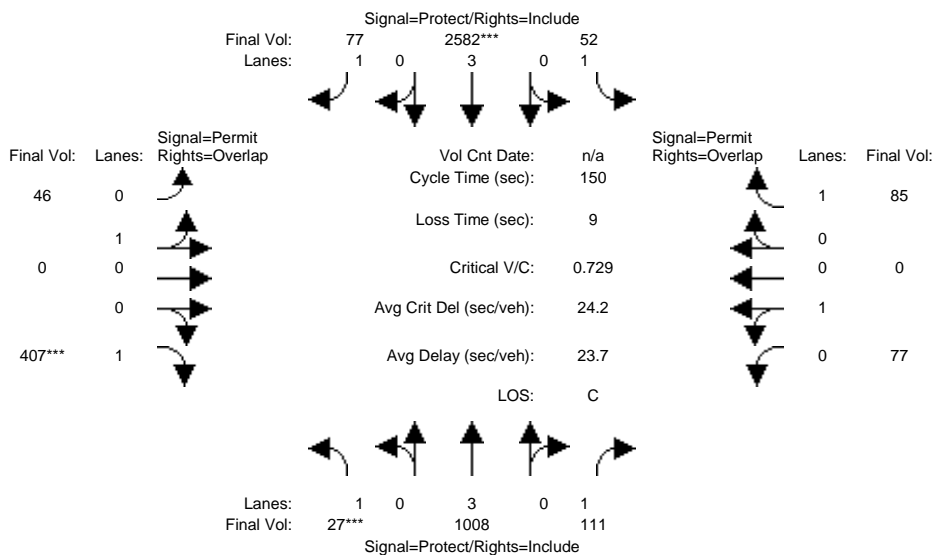
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 |
| Lanes:                  | 2.00 | 2.70 | 0.30 | 2.00 | 4.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.10 | 0.90 |
| Final Sat.:             | 3150 | 5053 | 547  | 3150 | 7600 | 1750 | 3150 | 1900 | 1750 | 1750 | 2086 | 1612 |

| Capacity Analysis Module: |       |      |      |      |      |       |      |      |      |       |      |      |
|---------------------------|-------|------|------|------|------|-------|------|------|------|-------|------|------|
| Vol/Sat:                  | 0.06  | 0.23 | 0.23 | 0.11 | 0.33 | 0.15  | 0.17 | 0.25 | 0.53 | 0.07  | 0.09 | 0.09 |
| Crit Moves:               | ****  |      |      |      | **** |       |      |      | **** | ****  |      |      |
| Green Time:               | 9.0   | 39.4 | 39.4 | 18.8 | 49.2 | 101.1 | 51.9 | 69.9 | 78.9 | 9.9   | 28.0 | 28.0 |
| Volume/Cap:               | 1.01  | 0.86 | 0.86 | 0.86 | 1.01 | 0.22  | 0.49 | 0.54 | 1.01 | 1.01  | 0.49 | 0.49 |
| Uniform Del:              | 70.5  | 52.8 | 52.8 | 64.4 | 50.4 | 9.4   | 38.6 | 28.6 | 35.6 | 70.0  | 54.6 | 54.6 |
| IncrcmntDel:              | 67.8  | 5.6  | 5.6  | 17.6 | 20.1 | 0.1   | 0.3  | 0.7  | 31.8 | 85.9  | 0.5  | 0.5  |
| InitQueueDel:             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Delay Adj:                | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Delay/Veh:                | 138.3 | 58.3 | 58.3 | 82.0 | 70.6 | 9.5   | 38.9 | 29.3 | 67.4 | 155.9 | 55.1 | 55.1 |
| User DelAdj:              | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| AdjDel/Veh:               | 138.3 | 58.3 | 58.3 | 82.0 | 70.6 | 9.5   | 38.9 | 29.3 | 67.4 | 155.9 | 55.1 | 55.1 |
| LOS by Move:              | F     | E+   | E+   | F    | E    | A     | D+   | C    | E    | F     | E+   | E+   |
| HCM2kAvgQ:                | 7     | 20   | 20   | 10   | 33   | 5     | 11   | 15   | 54   | 9     | 7    | 7    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing PM

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 27   | 1008 | 111  | 52   | 2582 | 77   | 46   | 0    | 407  | 77   | 0    | 85   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 27   | 1008 | 111  | 52   | 2582 | 77   | 46   | 0    | 407  | 77   | 0    | 85   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 27   | 1008 | 111  | 52   | 2582 | 77   | 46   | 0    | 407  | 77   | 0    | 85   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 27   | 1008 | 111  | 52   | 2582 | 77   | 46   | 0    | 407  | 77   | 0    | 85   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 27   | 1008 | 111  | 52   | 2582 | 77   | 46   | 0    | 407  | 77   | 0    | 85   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 27   | 1008 | 111  | 52   | 2582 | 77   | 46   | 0    | 407  | 77   | 0    | 85   |

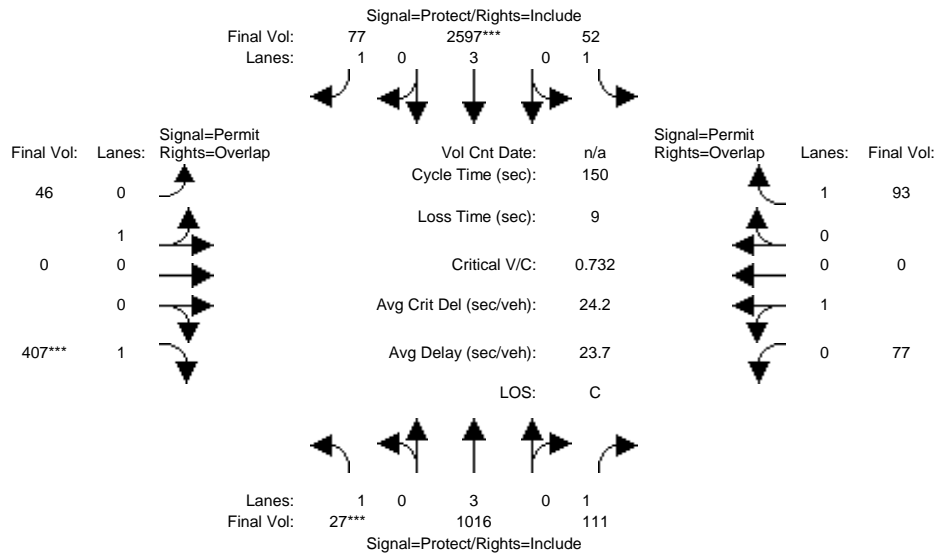
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1800 | 0    | 1750 | 1800 | 0    | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.18 | 0.06 | 0.03 | 0.45 | 0.04 | 0.03 | 0.00 | 0.23 | 0.04 | 0.00 | 0.05 |
| Crit Moves:               | ***  |      |      |      | **** |      |      |      | **** |      |      |      |
| Green Time:               | 7.0  | 80.7 | 80.7 | 21.3 | 95.0 | 95.0 | 39.0 | 0.0  | 46.0 | 39.0 | 0.0  | 60.3 |
| Volume/Cap:               | 0.33 | 0.33 | 0.12 | 0.21 | 0.72 | 0.07 | 0.10 | 0.00 | 0.76 | 0.16 | 0.00 | 0.12 |
| Uniform Del:              | 69.2 | 19.4 | 17.1 | 56.9 | 18.4 | 10.5 | 42.2 | 0.0  | 47.0 | 42.9 | 0.0  | 28.2 |
| IncrcmntDel:              | 2.4  | 0.1  | 0.1  | 0.4  | 0.7  | 0.0  | 0.1  | 0.0  | 6.2  | 0.2  | 0.0  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 71.6 | 19.5 | 17.1 | 57.3 | 19.1 | 10.6 | 42.2 | 0.0  | 53.2 | 43.1 | 0.0  | 28.3 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 71.6 | 19.5 | 17.1 | 57.3 | 19.1 | 10.6 | 42.2 | 0.0  | 53.2 | 43.1 | 0.0  | 28.3 |
| LOS by Move:              | E    | B-   | B    | E+   | B-   | B+   | D    | A    | D-   | D    | A    | C    |
| HCM2kAvgQ:                | 1    | 8    | 3    | 2    | 26   | 1    | 2    | 0    | 19   | 3    | 0    | 3    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P PM

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 27   | 1008 | 111  | 52   | 2582 | 77   | 46   | 0    | 407  | 77   | 0    | 85   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 27   | 1008 | 111  | 52   | 2582 | 77   | 46   | 0    | 407  | 77   | 0    | 85   |
| Added Vol:     | 0    | 8    | 0    | 0    | 15   | 0    | 0    | 0    | 0    | 0    | 0    | 8    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 27   | 1016 | 111  | 52   | 2597 | 77   | 46   | 0    | 407  | 77   | 0    | 93   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 27   | 1016 | 111  | 52   | 2597 | 77   | 46   | 0    | 407  | 77   | 0    | 93   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 27   | 1016 | 111  | 52   | 2597 | 77   | 46   | 0    | 407  | 77   | 0    | 93   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 27   | 1016 | 111  | 52   | 2597 | 77   | 46   | 0    | 407  | 77   | 0    | 93   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1800 | 0    | 1750 | 1800 | 0    | 1750 |

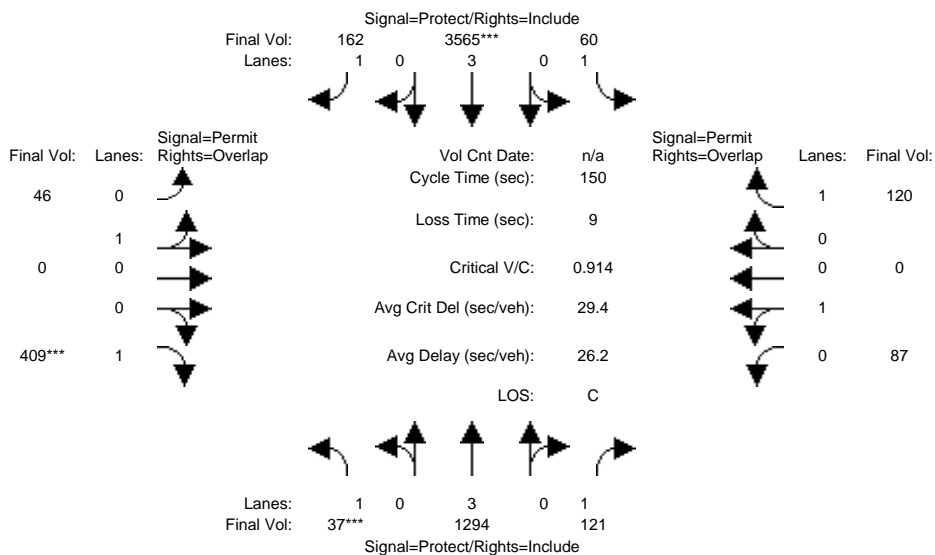
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.18 | 0.06 | 0.03 | 0.46 | 0.04 | 0.03 | 0.00 | 0.23 | 0.04 | 0.00 | 0.05 |
| Crit Moves:               | ***  |      |      |      | **** |      |      |      | **** |      |      |      |
| Green Time:               | 7.0  | 81.0 | 81.0 | 21.2 | 95.2 | 95.2 | 38.8 | 0.0  | 45.8 | 38.8 | 0.0  | 60.0 |
| Volume/Cap:               | 0.33 | 0.33 | 0.12 | 0.21 | 0.72 | 0.07 | 0.10 | 0.00 | 0.76 | 0.17 | 0.00 | 0.13 |
| Uniform Del:              | 69.2 | 19.3 | 17.0 | 57.0 | 18.4 | 10.5 | 42.3 | 0.0  | 47.1 | 43.0 | 0.0  | 28.5 |
| IncrcmntDel:              | 2.4  | 0.1  | 0.1  | 0.4  | 0.7  | 0.0  | 0.1  | 0.0  | 6.3  | 0.2  | 0.0  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 71.6 | 19.4 | 17.0 | 57.4 | 19.1 | 10.5 | 42.4 | 0.0  | 53.5 | 43.2 | 0.0  | 28.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 71.6 | 19.4 | 17.0 | 57.4 | 19.1 | 10.5 | 42.4 | 0.0  | 53.5 | 43.2 | 0.0  | 28.6 |
| LOS by Move:              | E    | B-   | B    | E+   | B-   | B+   | D    | A    | D-   | D    | A    | C    |
| HCM2kAvgQ:                | 1    | 8    | 3    | 2    | 26   | 1    | 2    | 0    | 19   | 3    | 0    | 3    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 37   | 1294 | 121  | 60   | 3565 | 162  | 46   | 0    | 409  | 87   | 0    | 120  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 37   | 1294 | 121  | 60   | 3565 | 162  | 46   | 0    | 409  | 87   | 0    | 120  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 37   | 1294 | 121  | 60   | 3565 | 162  | 46   | 0    | 409  | 87   | 0    | 120  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 37   | 1294 | 121  | 60   | 3565 | 162  | 46   | 0    | 409  | 87   | 0    | 120  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 37   | 1294 | 121  | 60   | 3565 | 162  | 46   | 0    | 409  | 87   | 0    | 120  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 37   | 1294 | 121  | 60   | 3565 | 162  | 46   | 0    | 409  | 87   | 0    | 120  |

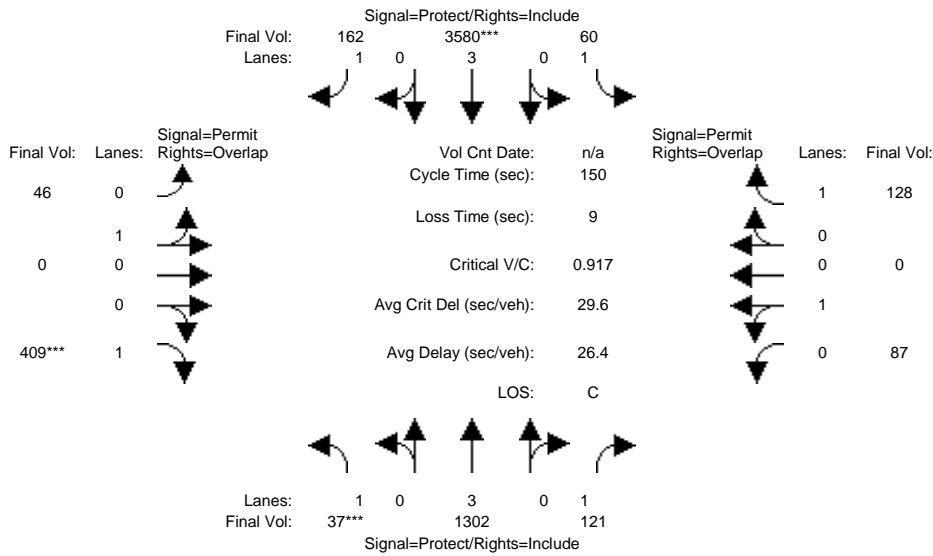
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1800 | 0    | 1750 | 1800 | 0    | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.23 | 0.07 | 0.03 | 0.63 | 0.09  | 0.03 | 0.00 | 0.23 | 0.05 | 0.00 | 0.07 |
| Crit Moves:               | ***  |      |      |      | **** |       |      |      | **** |      |      |      |
| Green Time:               | 7.0  | 91.4 | 91.4 | 18.8 | 103  | 103.2 | 30.8 | 0.0  | 37.8 | 30.8 | 0.0  | 49.6 |
| Volume/Cap:               | 0.45 | 0.37 | 0.11 | 0.27 | 0.91 | 0.13  | 0.12 | 0.00 | 0.93 | 0.24 | 0.00 | 0.21 |
| Uniform Del:              | 69.6 | 14.8 | 12.3 | 59.4 | 19.5 | 8.1   | 48.6 | 0.0  | 54.7 | 49.7 | 0.0  | 36.1 |
| IncrcmntDel:              | 4.0  | 0.1  | 0.0  | 0.7  | 3.6  | 0.1   | 0.2  | 0.0  | 25.5 | 0.3  | 0.0  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 73.6 | 14.9 | 12.4 | 60.1 | 23.2 | 8.1   | 48.7 | 0.0  | 80.2 | 50.1 | 0.0  | 36.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 73.6 | 14.9 | 12.4 | 60.1 | 23.2 | 8.1   | 48.7 | 0.0  | 80.2 | 50.1 | 0.0  | 36.2 |
| LOS by Move:              | E    | B    | B    | E    | C    | A     | D    | A    | F    | D    | A    | D+   |
| HCM2kAvgQ:                | 2    | 10   | 2    | 2    | 42   | 3     | 2    | 0    | 24   | 3    | 0    | 4    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P PM

Intersection #7: Mathilda Ave & Indio Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | Indio Ave  |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 10         | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 37   | 1294 | 121  | 60   | 3565 | 162  | 46   | 0    | 409  | 87   | 0    | 120  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 37   | 1294 | 121  | 60   | 3565 | 162  | 46   | 0    | 409  | 87   | 0    | 120  |
| Added Vol:     | 0    | 8    | 0    | 0    | 15   | 0    | 0    | 0    | 0    | 0    | 0    | 8    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 37   | 1302 | 121  | 60   | 3580 | 162  | 46   | 0    | 409  | 87   | 0    | 128  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 37   | 1302 | 121  | 60   | 3580 | 162  | 46   | 0    | 409  | 87   | 0    | 128  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 37   | 1302 | 121  | 60   | 3580 | 162  | 46   | 0    | 409  | 87   | 0    | 128  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 37   | 1302 | 121  | 60   | 3580 | 162  | 46   | 0    | 409  | 87   | 0    | 128  |

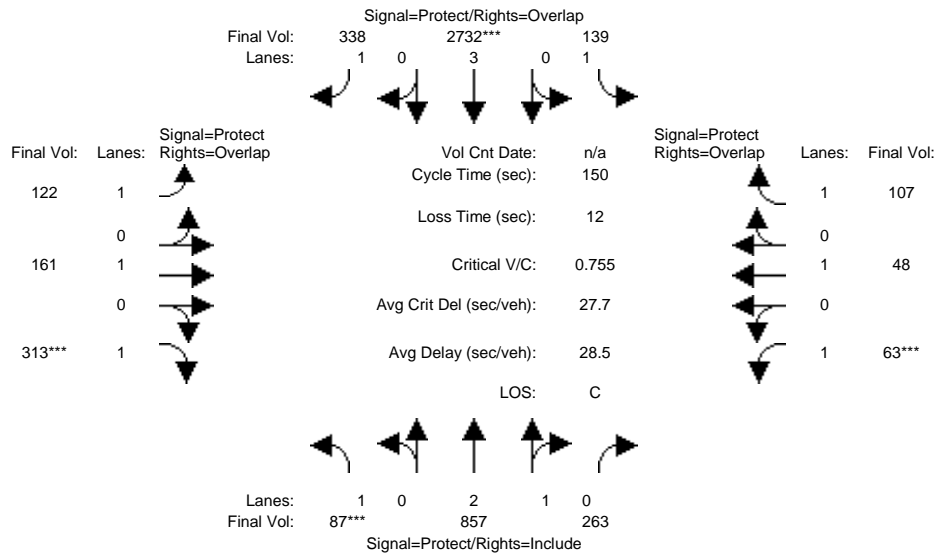
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.:             | 1750 | 5700 | 1750 | 1750 | 5700 | 1750 | 1800 | 0    | 1750 | 1800 | 0    | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.02 | 0.23 | 0.07 | 0.03 | 0.63 | 0.09  | 0.03 | 0.00 | 0.23 | 0.05 | 0.00 | 0.07 |
| Crit Moves:               | **** |      |      |      | **** |       |      |      | **** |      |      |      |
| Green Time:               | 7.0  | 91.5 | 91.5 | 18.7 | 103  | 103.3 | 30.7 | 0.0  | 37.7 | 30.7 | 0.0  | 49.5 |
| Volume/Cap:               | 0.45 | 0.37 | 0.11 | 0.27 | 0.91 | 0.13  | 0.12 | 0.00 | 0.93 | 0.24 | 0.00 | 0.22 |
| Uniform Del:              | 69.6 | 14.8 | 12.2 | 59.5 | 19.6 | 8.0   | 48.6 | 0.0  | 54.8 | 49.8 | 0.0  | 36.4 |
| IncrcmntDel:              | 4.0  | 0.1  | 0.0  | 0.7  | 3.8  | 0.1   | 0.2  | 0.0  | 26.0 | 0.3  | 0.0  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh:                | 73.6 | 14.8 | 12.3 | 60.2 | 23.3 | 8.1   | 48.8 | 0.0  | 80.8 | 50.1 | 0.0  | 36.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 73.6 | 14.8 | 12.3 | 60.2 | 23.3 | 8.1   | 48.8 | 0.0  | 80.8 | 50.1 | 0.0  | 36.6 |
| LOS by Move:              | E    | B    | B    | E    | C    | A     | D    | A    | F    | D    | A    | D+   |
| HCM2kAvgQ:                | 2    | 10   | 2    | 2    | 43   | 3     | 2    | 0    | 24   | 4    | 0    | 4    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing PM

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 87   | 857  | 263  | 139  | 2732 | 338  | 122  | 161  | 313  | 63   | 48   | 107  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 87   | 857  | 263  | 139  | 2732 | 338  | 122  | 161  | 313  | 63   | 48   | 107  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 87   | 857  | 263  | 139  | 2732 | 338  | 122  | 161  | 313  | 63   | 48   | 107  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 87   | 857  | 263  | 139  | 2732 | 338  | 122  | 161  | 313  | 63   | 48   | 107  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 87   | 857  | 263  | 139  | 2732 | 338  | 122  | 161  | 313  | 63   | 48   | 107  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 87   | 857  | 263  | 139  | 2732 | 338  | 122  | 161  | 313  | 63   | 48   | 107  |

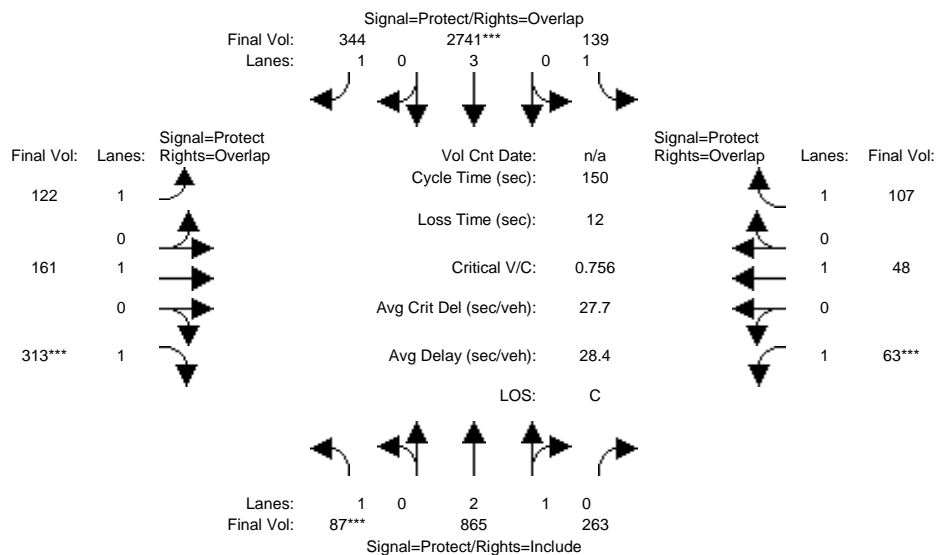
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 2.27 | 0.73 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 4283 | 1314 | 1750 | 5700 | 1750 | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |       |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|-------|------|------|
| Vol/Sat:                  | 0.05 | 0.20 | 0.20 | 0.08 | 0.48 | 0.19  | 0.07 | 0.08 | 0.18 | 0.04  | 0.03 | 0.06 |
| Crit Moves:               | ***  |      |      |      | **** |       |      |      | **** | ****  |      |      |
| Green Time:               | 9.9  | 75.3 | 75.3 | 29.9 | 95.3 | 112.1 | 16.8 | 25.7 | 35.6 | 7.2   | 16.0 | 45.9 |
| Volume/Cap:               | 0.75 | 0.40 | 0.40 | 0.40 | 0.75 | 0.26  | 0.62 | 0.50 | 0.75 | 0.75  | 0.24 | 0.20 |
| Uniform Del:              | 68.9 | 23.3 | 23.3 | 52.2 | 19.2 | 5.9   | 63.6 | 56.3 | 53.2 | 70.6  | 61.4 | 38.4 |
| IncrcmntDel:              | 24.2 | 0.1  | 0.1  | 0.8  | 0.9  | 0.1   | 6.1  | 1.2  | 7.7  | 31.7  | 0.6  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Delay/Veh:                | 93.1 | 23.4 | 23.4 | 53.0 | 20.1 | 6.0   | 69.7 | 57.5 | 60.9 | 102.3 | 62.0 | 38.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| AdjDel/Veh:               | 93.1 | 23.4 | 23.4 | 53.0 | 20.1 | 6.0   | 69.7 | 57.5 | 60.9 | 102.3 | 62.0 | 38.6 |
| LOS by Move:              | F    | C    | C    | D-   | C+   | A     | E    | E+   | E    | F     | E    | D+   |
| HCM2kAvgQ:                | 6    | 11   | 11   | 6    | 29   | 5     | 7    | 7    | 16   | 5     | 2    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P PM

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Approach:    | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Movement:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 87   | 857  | 263  | 139  | 2732 | 338  | 122  | 161  | 313  | 63   | 48   | 107  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 87   | 857  | 263  | 139  | 2732 | 338  | 122  | 161  | 313  | 63   | 48   | 107  |
| Added Vol:     | 0    | 8    | 0    | 0    | 9    | 6    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 87   | 865  | 263  | 139  | 2741 | 344  | 122  | 161  | 313  | 63   | 48   | 107  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 87   | 865  | 263  | 139  | 2741 | 344  | 122  | 161  | 313  | 63   | 48   | 107  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 87   | 865  | 263  | 139  | 2741 | 344  | 122  | 161  | 313  | 63   | 48   | 107  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 87   | 865  | 263  | 139  | 2741 | 344  | 122  | 161  | 313  | 63   | 48   | 107  |

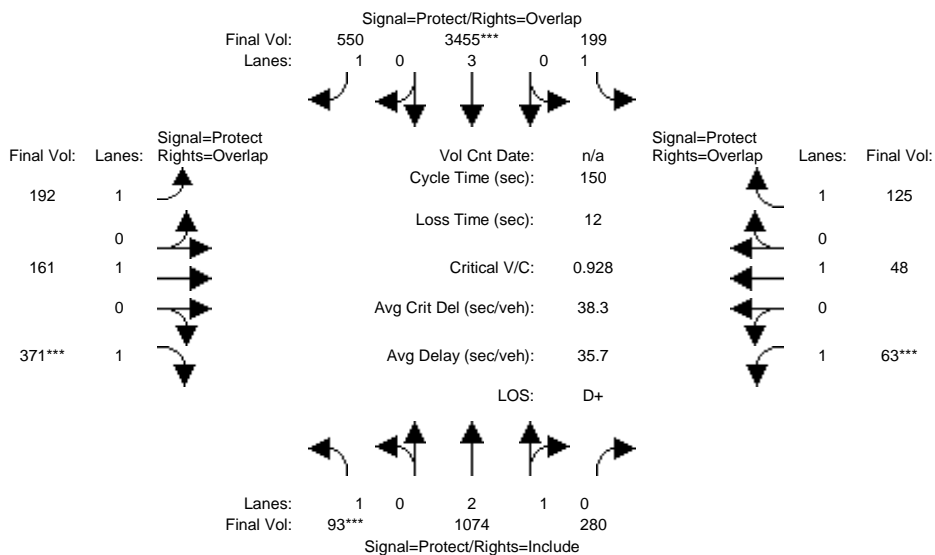
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 2.27 | 0.73 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 4293 | 1305 | 1750 | 5700 | 1750 | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |       |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|-------|------|------|
| Vol/Sat:                  | 0.05 | 0.20 | 0.20 | 0.08 | 0.48 | 0.20  | 0.07 | 0.08 | 0.18 | 0.04  | 0.03 | 0.06 |
| Crit Moves:               | ***  |      |      | **** |      |       |      |      | **** | ****  |      |      |
| Green Time:               | 9.9  | 75.5 | 75.5 | 29.8 | 95.4 | 112.1 | 16.7 | 25.6 | 35.5 | 7.1   | 16.0 | 45.8 |
| Volume/Cap:               | 0.76 | 0.40 | 0.40 | 0.40 | 0.76 | 0.26  | 0.62 | 0.50 | 0.76 | 0.76  | 0.24 | 0.20 |
| Uniform Del:              | 68.9 | 23.2 | 23.2 | 52.4 | 19.2 | 6.0   | 63.6 | 56.3 | 53.2 | 70.6  | 61.4 | 38.6 |
| IncrcmntDel:              | 24.5 | 0.1  | 0.1  | 0.8  | 0.9  | 0.1   | 6.2  | 1.2  | 7.8  | 32.1  | 0.6  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Delay/Veh:                | 93.4 | 23.3 | 23.3 | 53.1 | 20.1 | 6.1   | 69.8 | 57.5 | 61.0 | 102.7 | 62.0 | 38.8 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| AdjDel/Veh:               | 93.4 | 23.3 | 23.3 | 53.1 | 20.1 | 6.1   | 69.8 | 57.5 | 61.0 | 102.7 | 62.0 | 38.8 |
| LOS by Move:              | F    | C    | C    | D-   | C+   | A     | E    | E+   | E    | F     | E    | D+   |
| HCM2kAvgQ:                | 6    | 11   | 11   | 6    | 29   | 5     | 7    | 7    | 16   | 5     | 2    | 4    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd PM

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 93   | 1074 | 280  | 199  | 3455 | 550  | 192  | 161  | 371  | 63   | 48   | 125  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 93   | 1074 | 280  | 199  | 3455 | 550  | 192  | 161  | 371  | 63   | 48   | 125  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 93   | 1074 | 280  | 199  | 3455 | 550  | 192  | 161  | 371  | 63   | 48   | 125  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 93   | 1074 | 280  | 199  | 3455 | 550  | 192  | 161  | 371  | 63   | 48   | 125  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 93   | 1074 | 280  | 199  | 3455 | 550  | 192  | 161  | 371  | 63   | 48   | 125  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 93   | 1074 | 280  | 199  | 3455 | 550  | 192  | 161  | 371  | 63   | 48   | 125  |

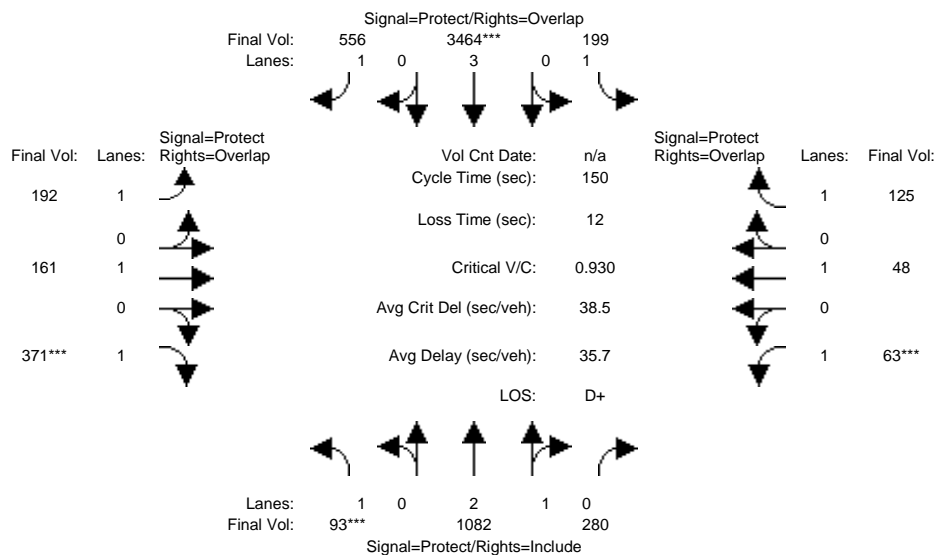
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 2.36 | 0.64 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 4440 | 1158 | 1750 | 5700 | 1750 | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |       |      |      |      |      |       |      |      |      |       |      |      |
|---------------------------|-------|------|------|------|------|-------|------|------|------|-------|------|------|
| Vol/Sat:                  | 0.05  | 0.24 | 0.24 | 0.11 | 0.61 | 0.31  | 0.11 | 0.08 | 0.21 | 0.04  | 0.03 | 0.07 |
| Crit Moves:               | ***   |      |      | **** |      |       |      |      | **** | ****  |      |      |
| Green Time:               | 8.5   | 71.8 | 71.8 | 33.8 | 97.1 | 117.2 | 20.2 | 25.4 | 33.9 | 7.0   | 12.3 | 46.0 |
| Volume/Cap:               | 0.94  | 0.51 | 0.51 | 0.51 | 0.94 | 0.40  | 0.82 | 0.50 | 0.94 | 0.77  | 0.31 | 0.23 |
| Uniform Del:              | 70.5  | 26.9 | 26.9 | 50.8 | 23.7 | 5.2   | 63.1 | 56.5 | 57.0 | 70.7  | 64.9 | 38.8 |
| IncrcmntDel:              | 69.9  | 0.2  | 0.2  | 1.1  | 5.5  | 0.2   | 19.3 | 1.2  | 29.6 | 35.4  | 1.1  | 0.2  |
| InitQueueDel:             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Delay Adj:                | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Delay/Veh:                | 140.4 | 27.0 | 27.0 | 51.9 | 29.2 | 5.4   | 82.5 | 57.7 | 86.6 | 106.1 | 66.0 | 39.0 |
| User DelAdj:              | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| AdjDel/Veh:               | 140.4 | 27.0 | 27.0 | 51.9 | 29.2 | 5.4   | 82.5 | 57.7 | 86.6 | 106.1 | 66.0 | 39.0 |
| LOS by Move:              | F     | C    | C    | D-   | C    | A     | F    | E+   | F    | F     | E    | D    |
| HCM2kAvgQ:                | 7     | 14   | 14   | 8    | 46   | 8     | 11   | 7    | 22   | 5     | 2    | 5    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P PM

Intersection #8: Mathilda Ave & California Ave



| Street Name: | Mathilda Ave |     |     |             |     |     | California Ave |     |     |            |     |     |
|--------------|--------------|-----|-----|-------------|-----|-----|----------------|-----|-----|------------|-----|-----|
|              | North Bound  |     |     | South Bound |     |     | East Bound     |     |     | West Bound |     |     |
| Approach:    | L            | T   | R   | L           | T   | R   | L              | T   | R   | L          | T   | R   |
| Min. Green:  | 7            | 10  | 10  | 7           | 10  | 10  | 7              | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0          | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0            | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 93   | 1074 | 280  | 199  | 3455 | 550  | 192  | 161  | 371  | 63   | 48   | 125  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 93   | 1074 | 280  | 199  | 3455 | 550  | 192  | 161  | 371  | 63   | 48   | 125  |
| Added Vol:     | 0    | 8    | 0    | 0    | 9    | 6    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 93   | 1082 | 280  | 199  | 3464 | 556  | 192  | 161  | 371  | 63   | 48   | 125  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 93   | 1082 | 280  | 199  | 3464 | 556  | 192  | 161  | 371  | 63   | 48   | 125  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 93   | 1082 | 280  | 199  | 3464 | 556  | 192  | 161  | 371  | 63   | 48   | 125  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 93   | 1082 | 280  | 199  | 3464 | 556  | 192  | 161  | 371  | 63   | 48   | 125  |

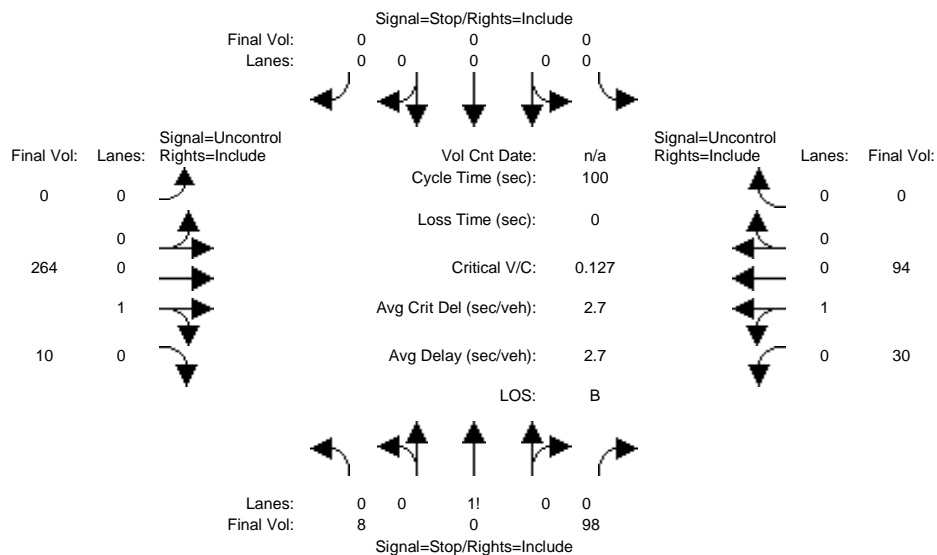
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 2.36 | 0.64 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 4447 | 1151 | 1750 | 5700 | 1750 | 1750 | 1900 | 1750 | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |       |      |      |      |      |       |      |      |      |       |      |      |
|---------------------------|-------|------|------|------|------|-------|------|------|------|-------|------|------|
| Vol/Sat:                  | 0.05  | 0.24 | 0.24 | 0.11 | 0.61 | 0.32  | 0.11 | 0.08 | 0.21 | 0.04  | 0.03 | 0.07 |
| Crit Moves:               | ***   |      |      | **** |      |       | **** |      | **** | ****  |      |      |
| Green Time:               | 8.5   | 72.0 | 72.0 | 33.6 | 97.1 | 117.3 | 20.1 | 25.4 | 33.9 | 7.0   | 12.2 | 45.9 |
| Volume/Cap:               | 0.94  | 0.51 | 0.51 | 0.51 | 0.94 | 0.41  | 0.82 | 0.50 | 0.94 | 0.77  | 0.31 | 0.23 |
| Uniform Del:              | 70.5  | 26.8 | 26.8 | 50.9 | 23.8 | 5.2   | 63.1 | 56.6 | 57.0 | 70.7  | 64.9 | 38.9 |
| IncrcmntDel:              | 70.5  | 0.2  | 0.2  | 1.1  | 5.6  | 0.2   | 19.5 | 1.2  | 30.1 | 35.4  | 1.1  | 0.2  |
| InitQueueDel:             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Delay Adj:                | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Delay/Veh:                | 141.0 | 27.0 | 27.0 | 52.0 | 29.4 | 5.4   | 82.7 | 57.8 | 87.1 | 106.1 | 66.0 | 39.1 |
| User DelAdj:              | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| AdjDel/Veh:               | 141.0 | 27.0 | 27.0 | 52.0 | 29.4 | 5.4   | 82.7 | 57.8 | 87.1 | 106.1 | 66.0 | 39.1 |
| LOS by Move:              | F     | C    | C    | D-   | C    | A     | F    | E+   | F    | F     | E    | D    |
| HCM2kAvgQ:                | 7     | 14   | 14   | 8    | 47   | 8     | 11   | 7    | 22   | 5     | 2    | 5    |

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

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 12 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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     | L            | T  | R     |
| Control:     | Stop Sign   |   |        | Stop Sign   |   |       | Uncontrolled |     |       | Uncontrolled |    |       |
| Lanes:       | 0           | 0 | 1! 0 0 | 0           | 0 | 0 0 0 | 0            | 0   | 0 1 0 | 0            | 1  | 0 0 0 |
| Initial Vol: | 8           | 0 | 98     | 0           | 0 | 0     | 0            | 264 | 10    | 30           | 94 | 0     |
| ApproachDel: | 10.5        |   |        | xxxxxxx     |   |       | xxxxxxx      |     |       | xxxxxxx      |    |       |

```

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=106]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=504]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #9 San Aleso Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future 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     | L            | T  | R     |
| Control:     | Stop Sign   |   |        | Stop Sign   |   |       | Uncontrolled |     |       | Uncontrolled |    |       |
| Lanes:       | 0           | 0 | 1! 0 0 | 0           | 0 | 0 0 0 | 0            | 0   | 0 1 0 | 0            | 1  | 0 0 0 |
| Initial Vol: | 8           | 0 | 98     | 0           | 0 | 0     | 0            | 264 | 10    | 30           | 94 | 0     |

```

Major Street Volume:          398
Minor Approach Volume:       106
Minor Approach Volume Threshold: 465
    
```

SIGNAL WARRANT DISCLAIMER

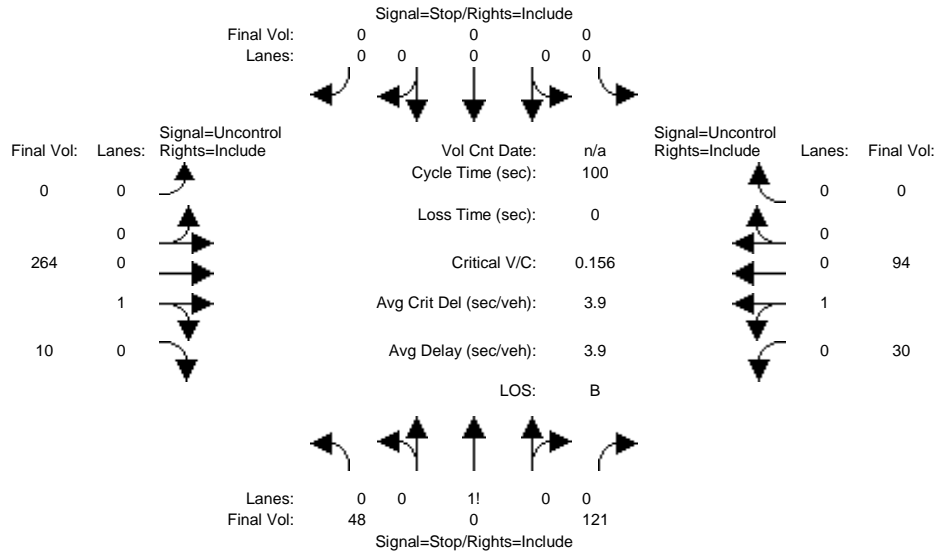
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P PM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 12 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table for Critical Gap Module with 13 columns and 2 rows showing gap times and follow-up times for various movements.

Table for Capacity Module with 13 columns and 4 rows showing conflict volumes, potential capacity, move capacity, and volume/capacity ratios.

Table for Level Of Service Module with 13 columns and 10 rows showing 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 48 0 121    | 0 0 0 0     | 0 264 10     | 30 94 0      |
| ApproachDel: | 11.7        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][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=169]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=567]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #9 San Aleso Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 48 0 121    | 0 0 0 0     | 0 264 10     | 30 94 0      |

```

Major Street Volume:          398
Minor Approach Volume:       169
Minor Approach Volume Threshold: 465
    
```

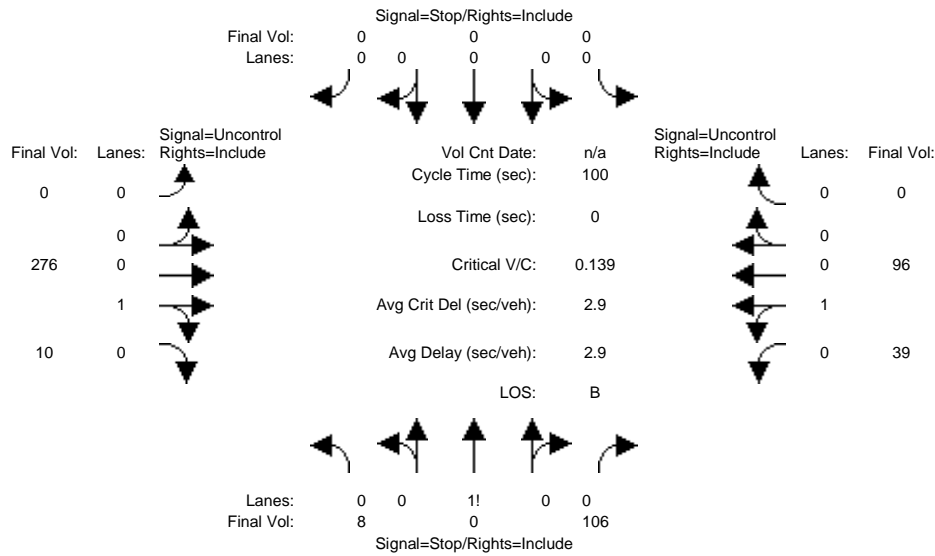
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd PM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume) and rows for each approach (North, South, East, West).

Table for Critical Gap Module showing Critical Gp and FollowUpTim values for each approach.

Table for Capacity Module showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for each approach.

Table for Level Of Service Module showing 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 San Aleso Ave & Ahwanee Ave
\*\*\*\*\*
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 8 0 106     | 0 0 0       | 0 276 10     | 39 96 0      |
| ApproachDel: | 10.7        | xxxxxx      | 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=114]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=3][total volume=535]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #9 San Aleso Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 8 0 106     | 0 0 0       | 0 276 10     | 39 96 0      |

Major Street Volume: 421  
 Minor Approach Volume: 114  
 Minor Approach Volume Threshold: 450

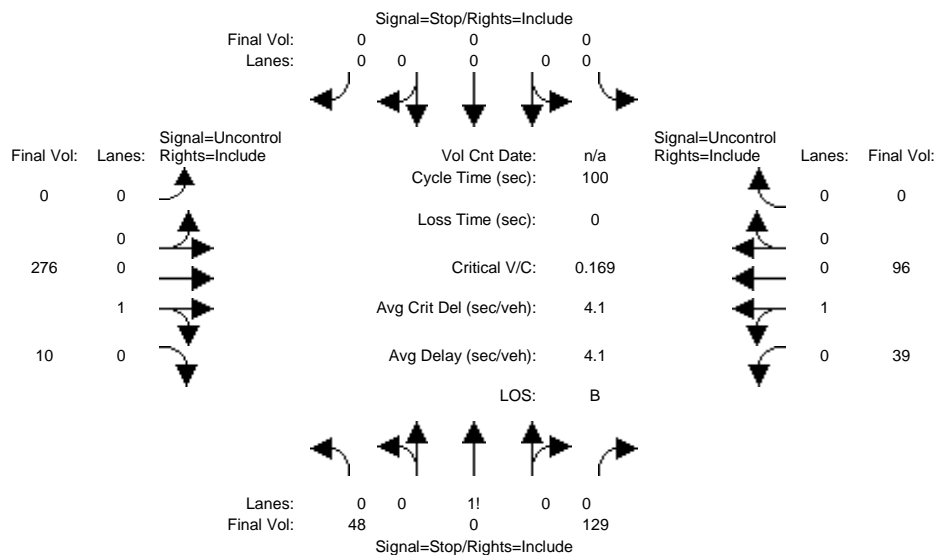
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module and rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Critical Gap Module and rows for Critical Gp, FollowUpTim.

Table with columns for Capacity Module and rows for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level of Service Module and rows for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #9 San Aleso Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 48 0 129    | 0 0 0 0     | 0 276 10     | 39 96 0      |
| ApproachDel: | 12.0        | xxxxxx      | xxxxxx       | xxxxxx       |

```

Approach[northbound][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=177]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=598]
    FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #9 San Aleso Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 48 0 129    | 0 0 0 0     | 0 276 10     | 39 96 0      |

```

Major Street Volume:          421
Minor Approach Volume:       177
Minor Approach Volume Threshold: 450
    
```

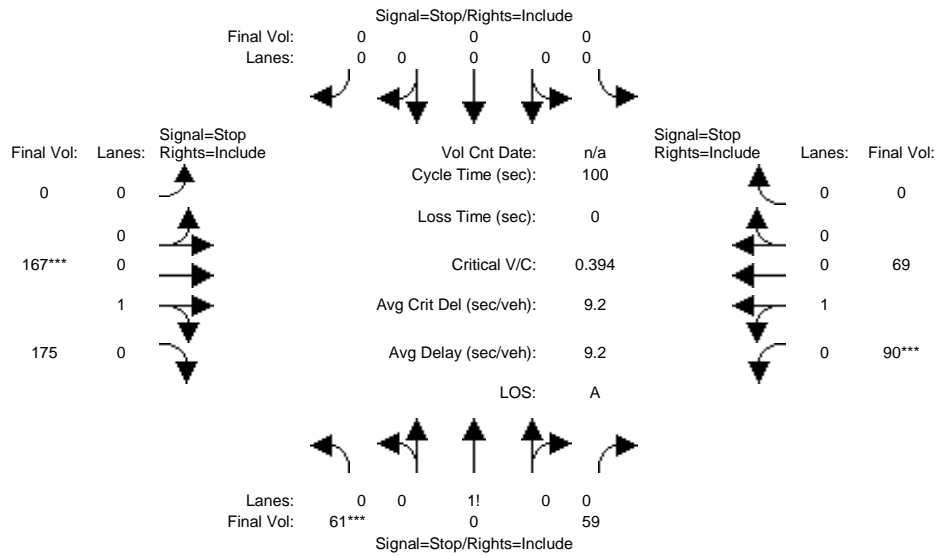
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Existing PM

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
| Approach:    | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Movement:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 167  | 175  | 90   | 69   | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 167  | 175  | 90   | 69   | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 167  | 175  | 90   | 69   | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 167  | 175  | 90   | 69   | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 167  | 175  | 90   | 69   | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 167  | 175  | 90   | 69   | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.51 | 0.00 | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.49 | 0.51 | 0.57 | 0.43 | 0.00 |
| Final Sat.:             | 360  | 0    | 348  | 0    | 0    | 0    | 0    | 424  | 444  | 427  | 327  | 0    |

| Capacity Analysis Module: |      |      |      |        |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|--------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.17 | xxxx | 0.17 | xxxx   | xxxx | xxxx | xxxx | 0.39 | 0.39 | 0.21 | 0.21 | xxxx |
| Crit Moves:               | **** |      |      |        |      |      |      | **** |      | **** |      |      |
| Delay/Veh:                | 8.6  | 0.0  | 8.6  | 0.0    | 0.0  | 0.0  | 0.0  | 9.6  | 9.6  | 8.8  | 8.8  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.6  | 0.0  | 8.6  | 0.0    | 0.0  | 0.0  | 0.0  | 9.6  | 9.6  | 8.8  | 8.8  | 0.0  |
| LOS by Move:              | A    | *    | A    | *      | *    | *    | *    | A    | A    | A    | A    | *    |
| ApproachDel:              | 8.6  |      |      | xxxxxx |      |      |      | 9.6  |      |      | 8.8  |      |
| Delay Adj:                | 1.00 |      |      | xxxxxx |      |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               | 8.6  |      |      | xxxxxx |      |      |      | 9.6  |      |      | 8.8  |      |
| LOS by Appr:              | A    |      |      | *      |      |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.0    | 0.0  | 0.0  | 0.6  | 0.6  | 0.6  | 0.2  | 0.2  | 0.2  |

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

Peak Hour Volume Signal Warrant Report [Urban]  
\*\*\*\*\*  
Intersection #10 Borregas Ave & Ahwanee Ave  
\*\*\*\*\*  
Future 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   |   | L          | T  | R |   |   |   |   |   |
| Control:                         | Stop Sign   |   |   |    | Stop Sign   |   |   |   | Stop Sign  |     |     |   | Stop Sign  |    |   |   |   |   |   |   |
| Lanes:                           | 0           | 0 | 1 | 0  | 0           | 0 | 0 | 0 | 0          | 0   | 0   | 1 | 0          | 0  | 1 | 0 | 0 | 1 | 0 | 0 |
| Initial Vol:                     | 61          |   | 0 | 59 | 0           | 0 | 0 | 0 | 0          | 167 | 175 |   | 90         | 69 |   | 0 |   |   |   |   |
| Major Street Volume:             |             |   |   |    | 501         |   |   |   |            |     |     |   |            |    |   |   |   |   |   |   |
| Minor Approach Volume:           |             |   |   |    | 120         |   |   |   |            |     |     |   |            |    |   |   |   |   |   |   |
| Minor Approach Volume Threshold: |             |   |   |    | 404         |   |   |   |            |     |     |   |            |    |   |   |   |   |   |   |

SIGNAL WARRANT DISCLAIMER

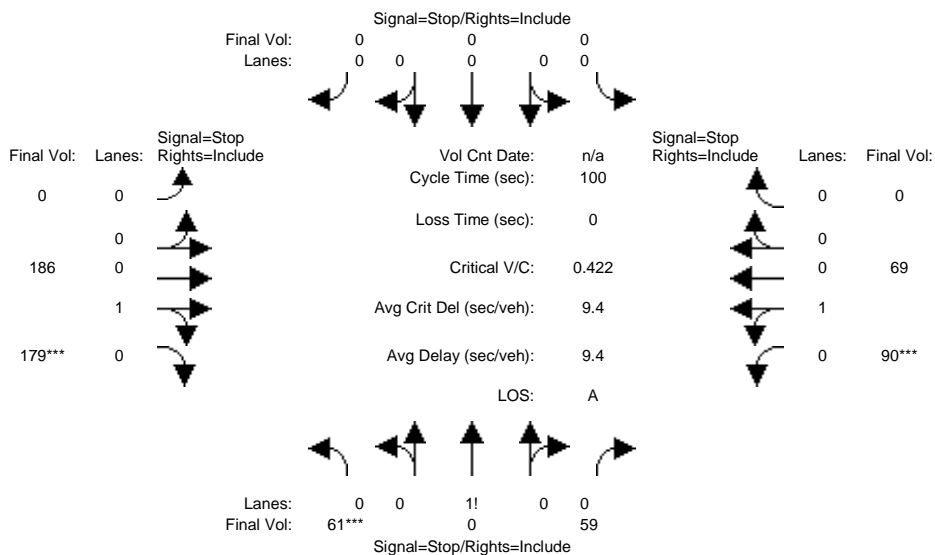
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing+P PM

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
| Approach:    | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Movement:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 167  | 175  | 90   | 69   | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 167  | 175  | 90   | 69   | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 19   | 4    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 186  | 179  | 90   | 69   | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 186  | 179  | 90   | 69   | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 186  | 179  | 90   | 69   | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 61   | 0    | 59   | 0    | 0    | 0    | 0    | 186  | 179  | 90   | 69   | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.51 | 0.00 | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.51 | 0.49 | 0.57 | 0.43 | 0.00 |
| Final Sat.:             | 355  | 0    | 343  | 0    | 0    | 0    | 0    | 441  | 425  | 424  | 325  | 0    |

| Capacity Analysis Module: |      |      |      |        |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|--------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.17 | xxxx | 0.17 | xxxx   | xxxx | xxxx | xxxx | 0.42 | 0.42 | 0.21 | 0.21 | xxxx |
| Crit Moves:               | **** |      |      |        |      |      |      |      | **** | **** |      |      |
| Delay/Veh:                | 8.7  | 0.0  | 8.7  | 0.0    | 0.0  | 0.0  | 0.0  | 9.9  | 9.9  | 8.9  | 8.9  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.7  | 0.0  | 8.7  | 0.0    | 0.0  | 0.0  | 0.0  | 9.9  | 9.9  | 8.9  | 8.9  | 0.0  |
| LOS by Move:              | A    | *    | A    | *      | *    | *    | *    | A    | A    | A    | A    | *    |
| ApproachDel:              | 8.7  |      |      | xxxxxx |      |      |      | 9.9  |      |      | 8.9  |      |
| Delay Adj:                | 1.00 |      |      | xxxxxx |      |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               | 8.7  |      |      | xxxxxx |      |      |      | 9.9  |      |      | 8.9  |      |
| LOS by Appr:              | A    |      |      | *      |      |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.0    | 0.0  | 0.0  | 0.7  | 0.7  | 0.7  | 0.2  | 0.2  | 0.2  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #10 Borregas Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |   |   |    | South Bound |   |   |   | East Bound |     |   |     | West Bound |    |   |   |   |   |   |   |
|----------------------------------|-------------|---|---|----|-------------|---|---|---|------------|-----|---|-----|------------|----|---|---|---|---|---|---|
| Movement:                        | L           | T | R |    | L           | T | R |   | L          | T   | R |     | L          | T  | R |   |   |   |   |   |
| Control:                         | Stop Sign   |   |   |    | Stop Sign   |   |   |   | Stop Sign  |     |   |     | Stop Sign  |    |   |   |   |   |   |   |
| Lanes:                           | 0           | 0 | 1 | 0  | 0           | 0 | 0 | 0 | 0          | 0   | 0 | 1   | 0          | 0  | 1 | 0 | 0 | 1 | 0 | 0 |
| Initial Vol:                     | 61          |   | 0 | 59 | 0           | 0 | 0 | 0 | 0          | 186 |   | 179 | 90         | 69 |   | 0 |   |   |   |   |
| Major Street Volume:             |             |   |   |    | 524         |   |   |   |            |     |   |     |            |    |   |   |   |   |   |   |
| Minor Approach Volume:           |             |   |   |    | 120         |   |   |   |            |     |   |     |            |    |   |   |   |   |   |   |
| Minor Approach Volume Threshold: |             |   |   |    | 392         |   |   |   |            |     |   |     |            |    |   |   |   |   |   |   |

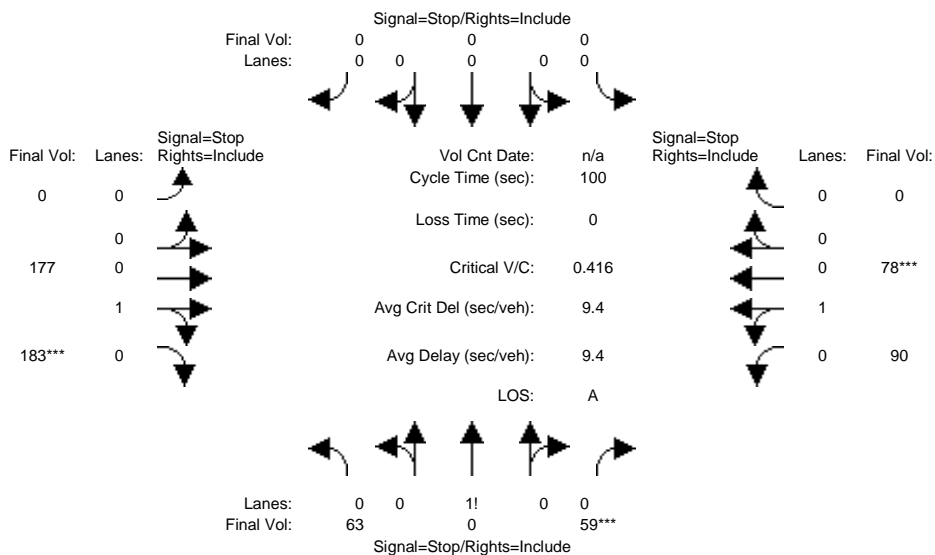
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Bkgd PM

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
|              | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Approach:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Movement:    |              |   |   |             |   |   |             |   |   |            |   |   |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 177  | 183  | 90   | 78   | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 177  | 183  | 90   | 78   | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 177  | 183  | 90   | 78   | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 177  | 183  | 90   | 78   | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 177  | 183  | 90   | 78   | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 177  | 183  | 90   | 78   | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.52 | 0.00 | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.49 | 0.51 | 0.54 | 0.46 | 0.00 |
| Final Sat.:             | 359  | 0    | 337  | 0    | 0    | 0    | 0    | 425  | 440  | 402  | 349  | 0    |

| Capacity Analysis Module: |      |      |      |        |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|--------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.18 | xxxx | 0.18 | xxxx   | xxxx | xxxx | xxxx | 0.42 | 0.42 | 0.22 | 0.22 | xxxx |
| Crit Moves:               |      |      | **** |        |      |      |      |      | **** |      | **** |      |
| Delay/Veh:                | 8.7  | 0.0  | 8.7  | 0.0    | 0.0  | 0.0  | 0.0  | 9.9  | 9.9  | 8.9  | 8.9  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.7  | 0.0  | 8.7  | 0.0    | 0.0  | 0.0  | 0.0  | 9.9  | 9.9  | 8.9  | 8.9  | 0.0  |
| LOS by Move:              | A    | *    | A    | *      | *    | *    | *    | A    | A    | A    | A    | *    |
| ApproachDel:              | 8.7  |      |      | xxxxxx |      |      |      | 9.9  |      |      | 8.9  |      |
| Delay Adj:                | 1.00 |      |      | xxxxxx |      |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               | 8.7  |      |      | xxxxxx |      |      |      | 9.9  |      |      | 8.9  |      |
| LOS by Appr:              | A    |      |      | *      |      |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.0    | 0.0  | 0.0  | 0.7  | 0.7  | 0.7  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #10 Borregas Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |   |   |   | South Bound |   |   |   | East Bound |   |   |   | West Bound |   |     |    |   |    |   |   |
|----------------------------------|-------------|---|---|---|-------------|---|---|---|------------|---|---|---|------------|---|-----|----|---|----|---|---|
| Movement:                        | L           | - | T | - | R           | L | - | T | -          | R | L | - | T          | - | R   | L  | - | T  | - | R |
| Control:                         | Stop Sign   |   |   |   | Stop Sign   |   |   |   | Stop Sign  |   |   |   | Stop Sign  |   |     |    |   |    |   |   |
| Lanes:                           | 0           | 0 | 1 | 0 | 0           | 0 | 0 | 0 | 0          | 0 | 0 | 0 | 0          | 1 | 0   | 0  | 1 | 0  | 0 | 0 |
| Initial Vol:                     | 63          |   | 0 |   | 59          | 0 |   | 0 |            | 0 | 0 |   | 177        |   | 183 | 90 |   | 78 |   | 0 |
| Major Street Volume:             |             |   |   |   | 528         |   |   |   |            |   |   |   |            |   |     |    |   |    |   |   |
| Minor Approach Volume:           |             |   |   |   | 122         |   |   |   |            |   |   |   |            |   |     |    |   |    |   |   |
| Minor Approach Volume Threshold: |             |   |   |   | 390         |   |   |   |            |   |   |   |            |   |     |    |   |    |   |   |

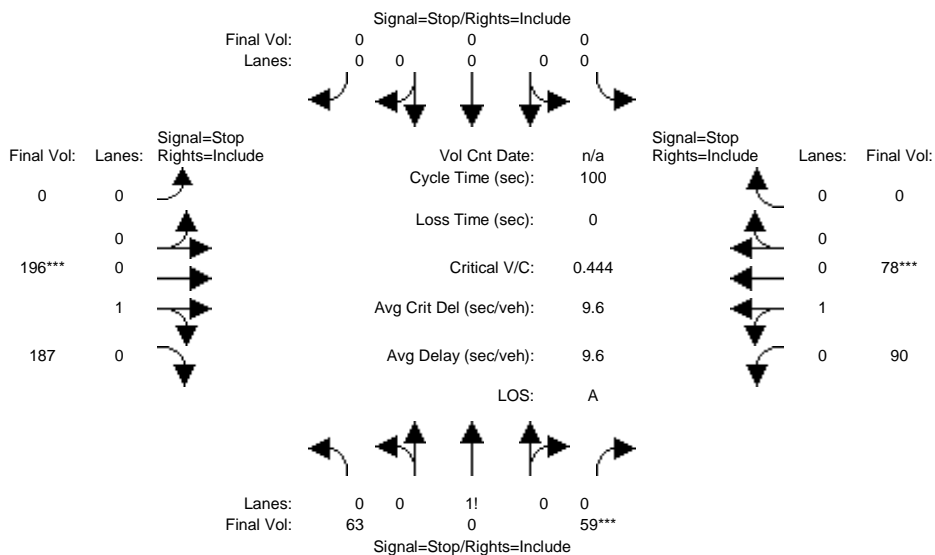
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Bkgd+P PM

Intersection #10: Borregas Ave & Ahwanee Ave



| Street Name: | Borregas Ave |   |   |             |   |   | Ahwanee Ave |   |   |            |   |   |
|--------------|--------------|---|---|-------------|---|---|-------------|---|---|------------|---|---|
| Approach:    | North Bound  |   |   | South Bound |   |   | East Bound  |   |   | West Bound |   |   |
| Movement:    | L            | T | R | L           | T | R | L           | T | R | L          | T | R |
| Min. Green:  | 0            | 0 | 0 | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 177  | 183  | 90   | 78   | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 177  | 183  | 90   | 78   | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 19   | 4    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 196  | 187  | 90   | 78   | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 196  | 187  | 90   | 78   | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 196  | 187  | 90   | 78   | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 63   | 0    | 59   | 0    | 0    | 0    | 0    | 196  | 187  | 90   | 78   | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.52 | 0.00 | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.51 | 0.49 | 0.54 | 0.46 | 0.00 |
| Final Sat.:             | 355  | 0    | 333  | 0    | 0    | 0    | 0    | 441  | 421  | 400  | 347  | 0    |

| Capacity Analysis Module: |      |      |      |        |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|--------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.18 | xxxx | 0.18 | xxxx   | xxxx | xxxx | xxxx | 0.44 | 0.44 | 0.23 | 0.23 | xxxx |
| Crit Moves:               |      |      | **** |        |      |      |      | **** |      |      | **** |      |
| Delay/Veh:                | 8.8  | 0.0  | 8.8  | 0.0    | 0.0  | 0.0  | 0.0  | 10.2 | 10.2 | 9.0  | 9.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.8  | 0.0  | 8.8  | 0.0    | 0.0  | 0.0  | 0.0  | 10.2 | 10.2 | 9.0  | 9.0  | 0.0  |
| LOS by Move:              | A    | *    | A    | *      | *    | *    | *    | B    | B    | A    | A    | *    |
| ApproachDel:              | 8.8  |      |      | xxxxxx |      |      |      | 10.2 |      |      | 9.0  |      |
| Delay Adj:                | 1.00 |      |      | xxxxxx |      |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               | 8.8  |      |      | xxxxxx |      |      |      | 10.2 |      |      | 9.0  |      |
| LOS by Appr:              | A    |      |      | *      |      |      |      | B    |      |      | A    |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.0    | 0.0  | 0.0  | 0.7  | 0.7  | 0.7  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #10 Borregas Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |   |   |    | South Bound |   |   |   | East Bound |     |     |   | West Bound |    |   |   |   |   |   |   |
|----------------------------------|-------------|---|---|----|-------------|---|---|---|------------|-----|-----|---|------------|----|---|---|---|---|---|---|
| Movement:                        | L           | T | R |    | L           | T | R |   | L          | T   | R   |   | L          | T  | R |   |   |   |   |   |
| Control:                         | Stop Sign   |   |   |    | Stop Sign   |   |   |   | Stop Sign  |     |     |   | Stop Sign  |    |   |   |   |   |   |   |
| Lanes:                           | 0           | 0 | 1 | 0  | 0           | 0 | 0 | 0 | 0          | 0   | 0   | 1 | 0          | 0  | 1 | 0 | 0 | 1 | 0 | 0 |
| Initial Vol:                     | 63          |   | 0 | 59 | 0           | 0 | 0 | 0 | 0          | 196 | 187 |   | 90         | 78 |   | 0 |   |   |   |   |
| Major Street Volume:             |             |   |   |    | 551         |   |   |   |            |     |     |   |            |    |   |   |   |   |   |   |
| Minor Approach Volume:           |             |   |   |    | 122         |   |   |   |            |     |     |   |            |    |   |   |   |   |   |   |
| Minor Approach Volume Threshold: |             |   |   |    | 378         |   |   |   |            |     |     |   |            |    |   |   |   |   |   |   |

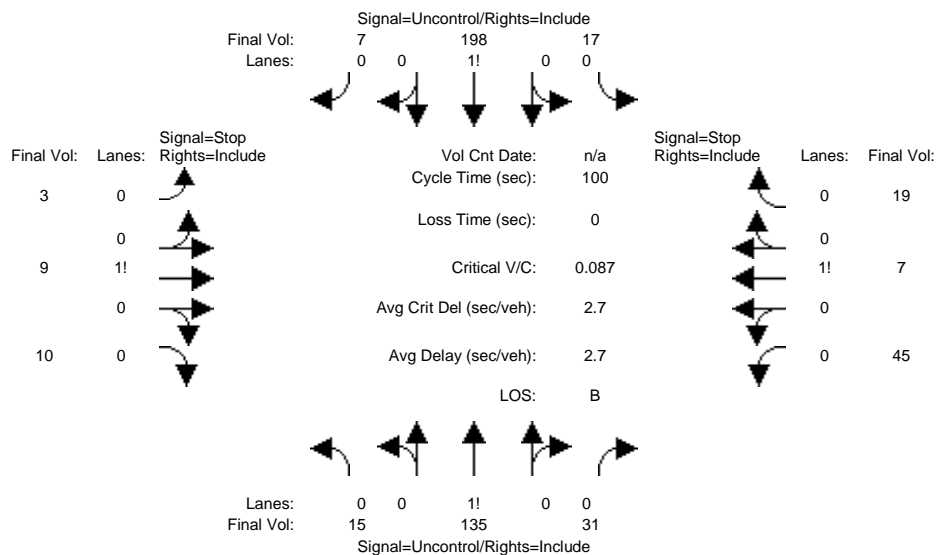
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUpTime.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 15 135 31    | 17 198 7     | 3 9 10     | 45 7 19    |
| ApproachDel: | xxxxxx       | xxxxxx       | 11.0       | 12.0       |

Approach[eastbound][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=496]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=71]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=496]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 15 135 31    | 17 198 7     | 3 9 10     | 45 7 19    |

Major Street Volume: 403  
 Minor Approach Volume: 71  
 Minor Approach Volume Threshold: 462

SIGNAL WARRANT DISCLAIMER

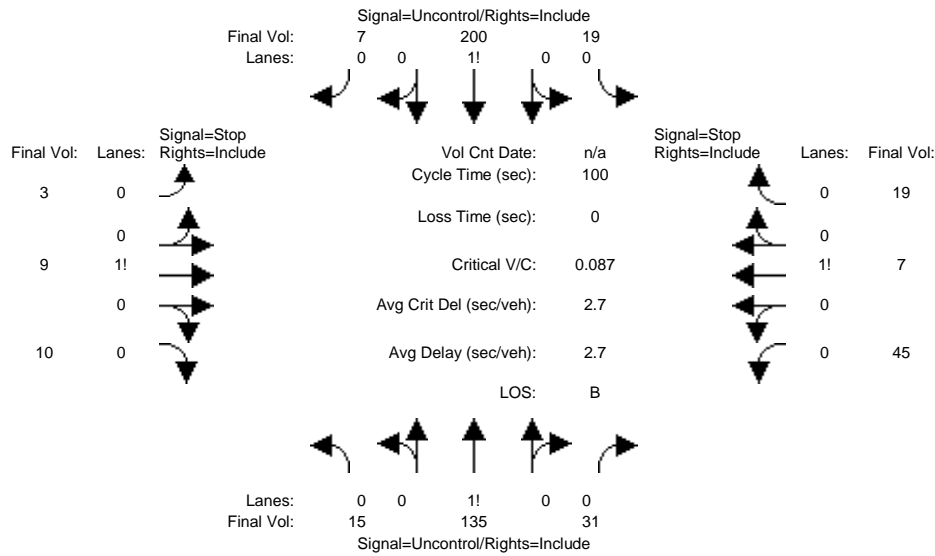
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P PM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 15 135 31    | 19 200 7     | 3 9 10     | 45 7 19    |
| ApproachDel: | xxxxxx       | xxxxxx       | 11.1       | 12.1       |

Approach[eastbound][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=500]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=71]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=500]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 15 135 31    | 19 200 7     | 3 9 10     | 45 7 19    |

Major Street Volume: 407  
 Minor Approach Volume: 71  
 Minor Approach Volume Threshold: 459

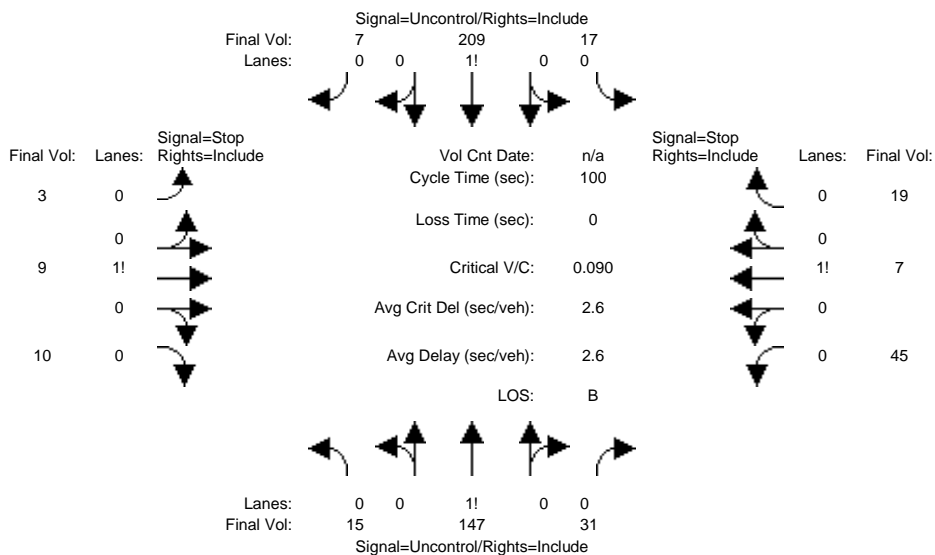
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd PM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 15 147 31    | 17 209 7     | 3 9 10     | 45 7 19    |
| ApproachDel: | xxxxxx       | xxxxxx       | 11.2       | 12.2       |

Approach[eastbound][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=519]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=71]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=519]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 15 147 31    | 17 209 7     | 3 9 10     | 45 7 19    |

Major Street Volume: 426  
 Minor Approach Volume: 71  
 Minor Approach Volume Threshold: 447

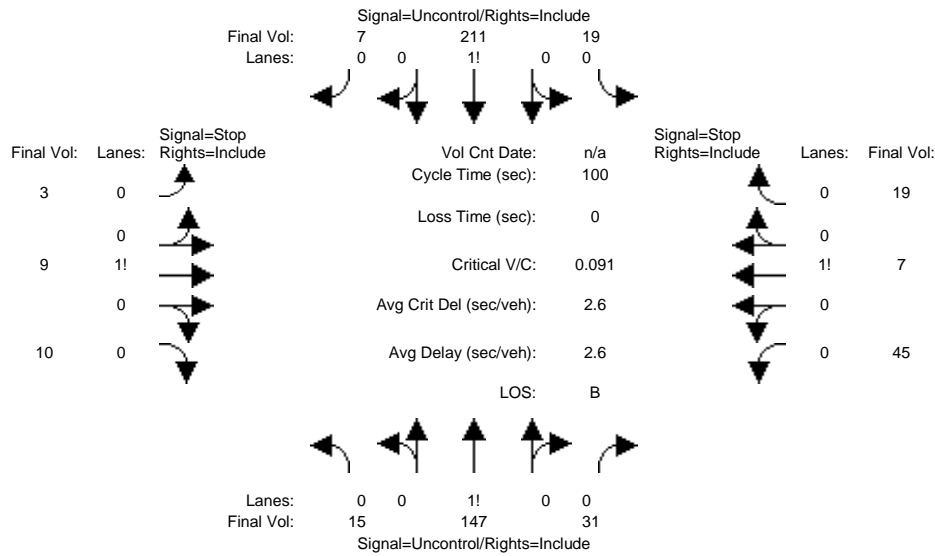
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing different movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns for Critical Gap Module showing values for Critical Gp and FollowUpTim across various movements.

Table with 12 columns for Capacity Module showing values for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns for Level Of Service Module showing values for 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #11 Borregas Ave & Duane Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 15 147 31    | 19 211 7     | 3 9 10     | 45 7 19    |
| ApproachDel: | xxxxxx       | xxxxxx       | 11.2       | 12.3       |

Approach[eastbound][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=523]  
 FAIL - Total volume less than 650 for intersection  
 with less than four approaches.

Approach[westbound][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=71]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=523]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #11 Borregas Ave & Duane Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 0 0 1! 0 0   | 0 0 1! 0 0   | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol: | 15 147 31    | 19 211 7     | 3 9 10     | 45 7 19    |

Major Street Volume: 430  
 Minor Approach Volume: 71  
 Minor Approach Volume Threshold: 444

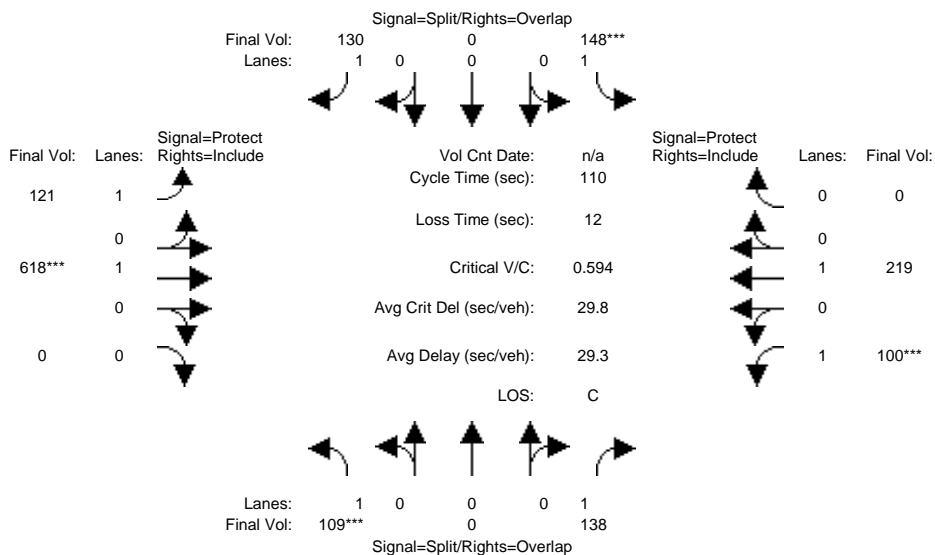
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 109  | 0    | 138  | 148  | 0    | 130  | 121  | 618  | 0    | 100  | 219  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 109  | 0    | 138  | 148  | 0    | 130  | 121  | 618  | 0    | 100  | 219  | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 109  | 0    | 138  | 148  | 0    | 130  | 121  | 618  | 0    | 100  | 219  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 109  | 0    | 138  | 148  | 0    | 130  | 121  | 618  | 0    | 100  | 219  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 109  | 0    | 138  | 148  | 0    | 130  | 121  | 618  | 0    | 100  | 219  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 109  | 0    | 138  | 148  | 0    | 130  | 121  | 618  | 0    | 100  | 219  | 0    |

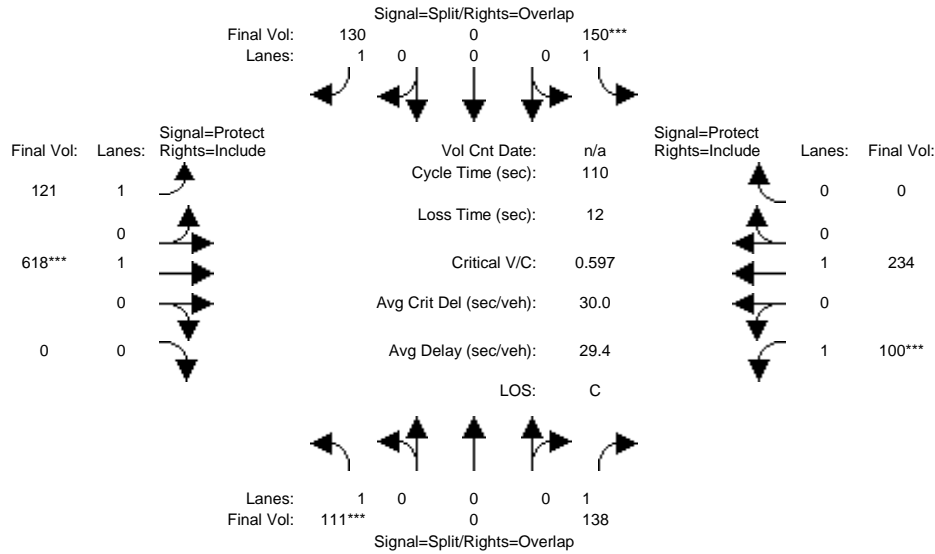
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.:             | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.06 | 0.00 | 0.08 | 0.08 | 0.00 | 0.07 | 0.07 | 0.33 | 0.00 | 0.06 | 0.12 | 0.00 |
| Crit Moves:               | ***  |      |      | ***  |      |      | ***  |      |      | ***  |      |      |
| Green Time:               | 11.5 | 0.0  | 22.1 | 15.7 | 0.0  | 42.2 | 26.5 | 60.2 | 0.0  | 10.6 | 44.3 | 0.0  |
| Volume/Cap:               | 0.59 | 0.00 | 0.39 | 0.59 | 0.00 | 0.19 | 0.29 | 0.59 | 0.00 | 0.59 | 0.29 | 0.00 |
| Uniform Del:              | 47.0 | 0.0  | 38.1 | 44.2 | 0.0  | 22.6 | 34.0 | 16.7 | 0.0  | 47.7 | 22.2 | 0.0  |
| IncrcmntDel:              | 5.2  | 0.0  | 0.7  | 3.8  | 0.0  | 0.1  | 0.4  | 0.9  | 0.0  | 5.6  | 0.2  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:                | 52.2 | 0.0  | 38.8 | 48.0 | 0.0  | 22.7 | 34.4 | 17.6 | 0.0  | 53.3 | 22.4 | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 52.2 | 0.0  | 38.8 | 48.0 | 0.0  | 22.7 | 34.4 | 17.6 | 0.0  | 53.3 | 22.4 | 0.0  |
| LOS by Move:              | D-   | A    | D+   | D    | A    | C+   | C-   | B    | A    | D-   | C+   | A    |
| HCM2kAvgQ:                | 5    | 0    | 5    | 6    | 0    | 3    | 4    | 14   | 0    | 4    | 5    | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P PM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 109  | 0    | 138  | 148  | 0    | 130  | 121  | 618  | 0    | 100  | 219  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 109  | 0    | 138  | 148  | 0    | 130  | 121  | 618  | 0    | 100  | 219  | 0    |
| Added Vol:     | 2    | 0    | 0    | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 15   | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 111  | 0    | 138  | 150  | 0    | 130  | 121  | 618  | 0    | 100  | 234  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 111  | 0    | 138  | 150  | 0    | 130  | 121  | 618  | 0    | 100  | 234  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 111  | 0    | 138  | 150  | 0    | 130  | 121  | 618  | 0    | 100  | 234  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 111  | 0    | 138  | 150  | 0    | 130  | 121  | 618  | 0    | 100  | 234  | 0    |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.:             | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

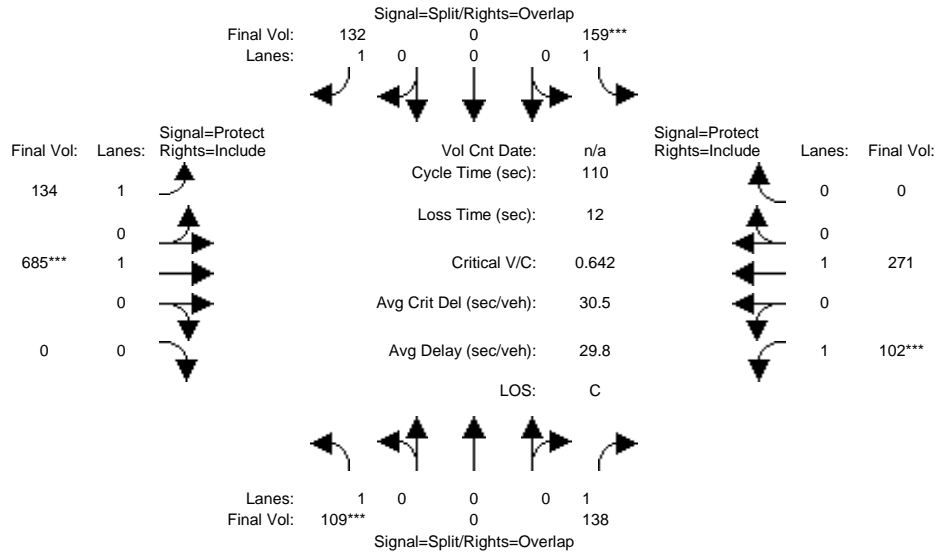
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.06 | 0.00 | 0.08 | 0.09 | 0.00 | 0.07 | 0.07 | 0.33 | 0.00 | 0.06 | 0.12 | 0.00 |
| Crit Moves:               | ***  |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 11.7 | 0.0  | 22.2 | 15.8 | 0.0  | 41.2 | 25.3 | 60.0 | 0.0  | 10.5 | 45.2 | 0.0  |
| Volume/Cap:               | 0.60 | 0.00 | 0.39 | 0.60 | 0.00 | 0.20 | 0.30 | 0.60 | 0.00 | 0.60 | 0.30 | 0.00 |
| Uniform Del:              | 46.9 | 0.0  | 38.0 | 44.1 | 0.0  | 23.3 | 35.0 | 16.9 | 0.0  | 47.7 | 21.8 | 0.0  |
| IncrcmntDel:              | 5.2  | 0.0  | 0.7  | 3.9  | 0.0  | 0.1  | 0.4  | 1.0  | 0.0  | 5.8  | 0.2  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:                | 52.1 | 0.0  | 38.7 | 48.0 | 0.0  | 23.4 | 35.4 | 17.8 | 0.0  | 53.5 | 22.0 | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 52.1 | 0.0  | 38.7 | 48.0 | 0.0  | 23.4 | 35.4 | 17.8 | 0.0  | 53.5 | 22.0 | 0.0  |
| LOS by Move:              | D-   | A    | D+   | D    | A    | C    | D+   | B    | A    | D-   | C+   | A    |
| HCM2kAvgQ:                | 5    | 0    | 5    | 6    | 0    | 3    | 4    | 14   | 0    | 4    | 5    | 0    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

Volume Module:

|               |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:     | 109  | 0    | 138  | 159  | 0    | 132  | 134  | 685  | 0    | 102  | 271  | 0    |
| Growth Adj:   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:  | 109  | 0    | 138  | 159  | 0    | 132  | 134  | 685  | 0    | 102  | 271  | 0    |
| Added Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:  | 109  | 0    | 138  | 159  | 0    | 132  | 134  | 685  | 0    | 102  | 271  | 0    |
| User Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:   | 109  | 0    | 138  | 159  | 0    | 132  | 134  | 685  | 0    | 102  | 271  | 0    |
| Reduct Vol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:  | 109  | 0    | 138  | 159  | 0    | 132  | 134  | 685  | 0    | 102  | 271  | 0    |
| PCE Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 109  | 0    | 138  | 159  | 0    | 132  | 134  | 685  | 0    | 102  | 271  | 0    |

Saturation Flow Module:

|             |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:   | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:      | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.: | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

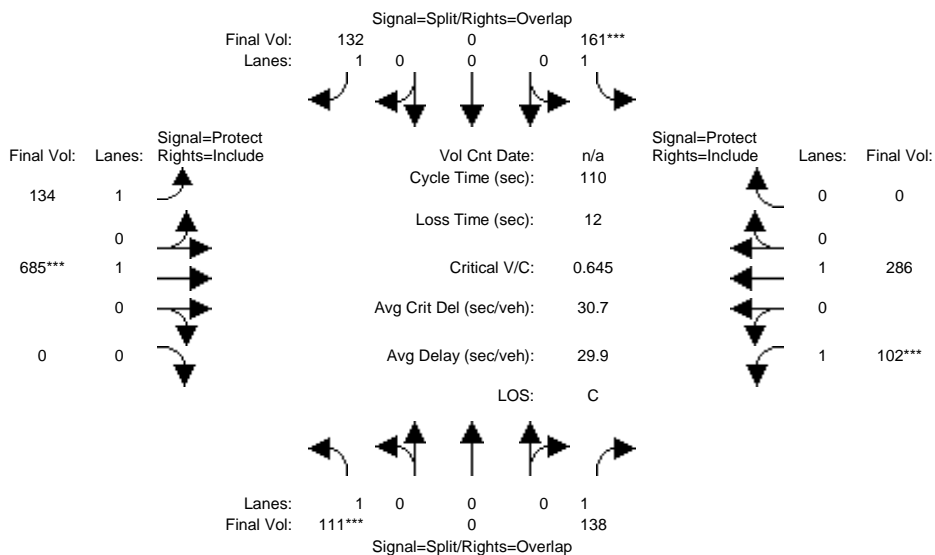
Capacity Analysis Module:

|               |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:      | 0.06 | 0.00 | 0.08 | 0.09 | 0.00 | 0.08 | 0.08 | 0.36 | 0.00 | 0.06 | 0.14 | 0.00 |
| Crit Moves:   | ***  |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:   | 10.7 | 0.0  | 20.7 | 15.6 | 0.0  | 40.6 | 25.1 | 61.8 | 0.0  | 10.0 | 46.7 | 0.0  |
| Volume/Cap:   | 0.64 | 0.00 | 0.42 | 0.64 | 0.00 | 0.20 | 0.34 | 0.64 | 0.00 | 0.64 | 0.34 | 0.00 |
| Uniform Del:  | 47.8 | 0.0  | 39.4 | 44.6 | 0.0  | 23.7 | 35.5 | 16.5 | 0.0  | 48.3 | 21.2 | 0.0  |
| IncrcmntDel:  | 8.1  | 0.0  | 0.9  | 5.6  | 0.0  | 0.2  | 0.5  | 1.3  | 0.0  | 8.6  | 0.2  | 0.0  |
| InitQueueDel: | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:    | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:    | 55.9 | 0.0  | 40.3 | 50.2 | 0.0  | 23.8 | 36.0 | 17.9 | 0.0  | 56.9 | 21.5 | 0.0  |
| User DelAdj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:   | 55.9 | 0.0  | 40.3 | 50.2 | 0.0  | 23.8 | 36.0 | 17.9 | 0.0  | 56.9 | 21.5 | 0.0  |
| LOS by Move:  | E+   | A    | D    | D    | A    | C    | D+   | B    | A    | E+   | C+   | A    |
| HCM2kAvgQ:    | 5    | 0    | 5    | 7    | 0    | 3    | 4    | 16   | 0    | 5    | 6    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P PM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



| Street Name: | Borregas Ave/Sunnyvale Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|----------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | North Bound                |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L                          | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 10                         | 10  | 10  | 10          | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0                        | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 109  | 0    | 138  | 159  | 0    | 132  | 134  | 685  | 0    | 102  | 271  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 109  | 0    | 138  | 159  | 0    | 132  | 134  | 685  | 0    | 102  | 271  | 0    |
| Added Vol:     | 2    | 0    | 0    | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 15   | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 111  | 0    | 138  | 161  | 0    | 132  | 134  | 685  | 0    | 102  | 286  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 111  | 0    | 138  | 161  | 0    | 132  | 134  | 685  | 0    | 102  | 286  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 111  | 0    | 138  | 161  | 0    | 132  | 134  | 685  | 0    | 102  | 286  | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 111  | 0    | 138  | 161  | 0    | 132  | 134  | 685  | 0    | 102  | 286  | 0    |

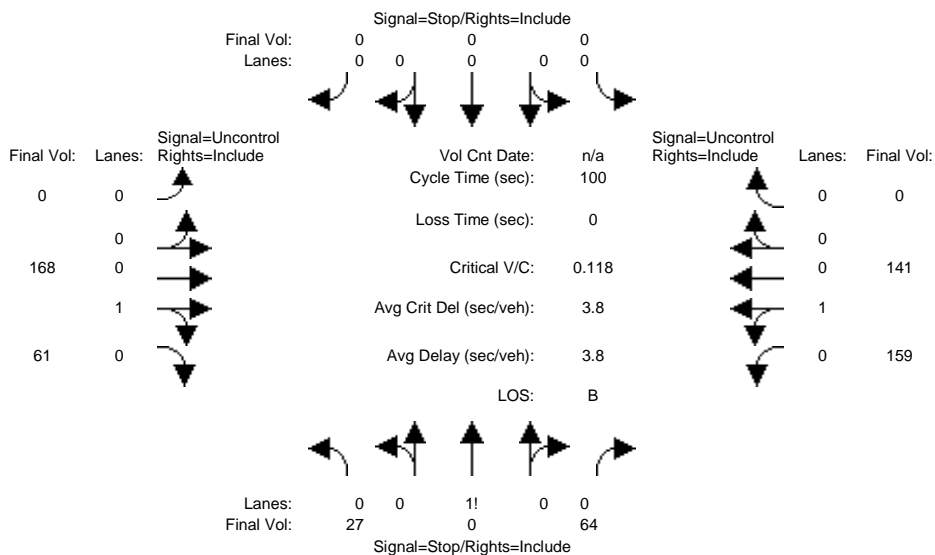
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.:             | 1750 | 0    | 1750 | 1750 | 0    | 1750 | 1750 | 1900 | 0    | 1750 | 1900 | 0    |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.06 | 0.00 | 0.08 | 0.09 | 0.00 | 0.08 | 0.08 | 0.36 | 0.00 | 0.06 | 0.15 | 0.00 |
| Crit Moves:               | ***  |      |      | ***  |      |      | ***  | ***  |      | ***  |      |      |
| Green Time:               | 10.8 | 0.0  | 20.8 | 15.7 | 0.0  | 39.8 | 24.1 | 61.5 | 0.0  | 9.9  | 47.4 | 0.0  |
| Volume/Cap:               | 0.64 | 0.00 | 0.42 | 0.64 | 0.00 | 0.21 | 0.35 | 0.64 | 0.00 | 0.64 | 0.35 | 0.00 |
| Uniform Del:              | 47.7 | 0.0  | 39.3 | 44.5 | 0.0  | 24.2 | 36.3 | 16.7 | 0.0  | 48.3 | 21.0 | 0.0  |
| IncrcmntDel:              | 8.1  | 0.0  | 0.9  | 5.7  | 0.0  | 0.2  | 0.6  | 1.4  | 0.0  | 8.8  | 0.3  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh:                | 55.9 | 0.0  | 40.1 | 50.2 | 0.0  | 24.4 | 36.9 | 18.1 | 0.0  | 57.1 | 21.2 | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 55.9 | 0.0  | 40.1 | 50.2 | 0.0  | 24.4 | 36.9 | 18.1 | 0.0  | 57.1 | 21.2 | 0.0  |
| LOS by Move:              | E+   | A    | D    | D    | A    | C    | D+   | B-   | A    | E+   | C+   | A    |
| HCM2kAvgQ:                | 5    | 0    | 5    | 7    | 0    | 3    | 4    | 16   | 0    | 5    | 6    | 0    |

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

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Existing PM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

| Volume Module: | 27   | 0    | 64   | 0    | 0    | 0    | 0    | 168  | 61   | 159  | 141  | 0    |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 27   | 0    | 64   | 0    | 0    | 0    | 0    | 168  | 61   | 159  | 141  | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 27   | 0    | 64   | 0    | 0    | 0    | 0    | 168  | 61   | 159  | 141  | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 27   | 0    | 64   | 0    | 0    | 0    | 0    | 168  | 61   | 159  | 141  | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 27   | 0    | 64   | 0    | 0    | 0    | 0    | 168  | 61   | 159  | 141  | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume:   | 27   | 0    | 64   | 0    | 0    | 0    | 0    | 168  | 61   | 159  | 141  | 0    |

| Critical Gap Module: | 6.4 | 6.5 | 6.2 | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | 4.1 | xxxxx | xxxxx |
|----------------------|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|
| Critical Gp:         | 6.4 | 6.5 | 6.2 | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | 4.1 | xxxxx | xxxxx |
| FollowUpTim:         | 3.5 | 4.0 | 3.3 | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | 2.2 | xxxxx | xxxxx |

| Capacity Module: | 658  | 658  | 199  | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | 229  | xxxxx | xxxxx |
|------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| Cnflct Vol:      | 658  | 658  | 199  | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | 229  | xxxxx | xxxxx |
| Potent Cap.:     | 433  | 387  | 848  | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | 1351 | xxxxx | xxxxx |
| Move Cap.:       | 390  | 337  | 848  | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | 1351 | xxxxx | xxxxx |
| Volume/Cap:      | 0.07 | 0.00 | 0.08 | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx | 0.12 | xxxxx | xxxxx |

| Level Of Service Module: | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx | 0.4     | xxxxx | xxxxx |
|--------------------------|-------|-------|---------|-------|-------|-------|-------|---------|-------|-------|---------|-------|-------|
| 2Way95thQ:               | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx | 0.4     | xxxxx | xxxxx |
| Control Del:             | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx | 8.0     | xxxxx | xxxxx |
| LOS by Move:             | *     | *     | *       | *     | *     | *     | *     | *       | *     | *     | A       | *     | *     |
| Shared Cap.:             | xxxxx | 629   | xxxxx   | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx |
| SharedQueue:             | xxxxx | 0.5   | xxxxx   | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx | 0.4     | xxxxx | xxxxx |
| Shrd ConDel:             | xxxxx | 11.7  | xxxxx   | xxxxx | xxxxx | xxxxx | xxxxx | xxxxx   | xxxxx | xxxxx | 8.0     | xxxxx | xxxxx |
| Shared LOS:              | *     | B     | *       | *     | *     | *     | *     | *       | *     | *     | A       | *     | *     |
| ApproachDel:             | 11.7  |       | xxxxxxx |       |       |       |       | xxxxxxx |       |       | xxxxxxx |       |       |
| ApproachLOS:             | B     |       | *       |       |       |       |       | *       |       |       | *       |       | *     |

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 27 0 64     | 0 0 0       | 0 168 61     | 159 141 0    |
| ApproachDel: | 11.7        | xxxxxx      | 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=91]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=3][total volume=620]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #13 Morse Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 27 0 64     | 0 0 0       | 0 168 61     | 159 141 0    |

Major Street Volume: 529  
 Minor Approach Volume: 91  
 Minor Approach Volume Threshold: 389

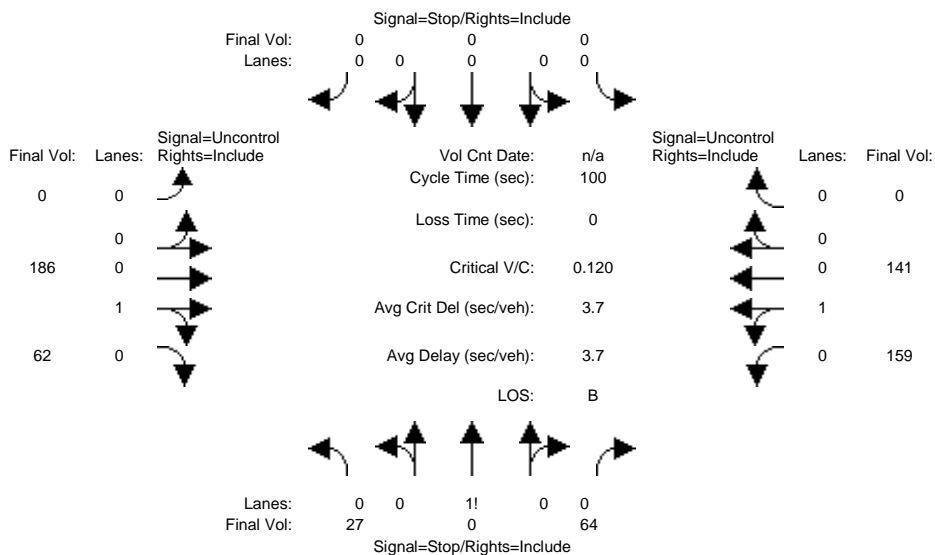
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P PM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for different movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 13 columns representing critical gap modules. Rows include Critical Gp and FollowUpTim.

Table with 13 columns representing capacity modules. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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  | L   | - | T   | - | R |
| Control:     | Stop Sign   |   |   |   | Stop Sign   |   |   |   | Uncontrolled |   |   |   | Uncontrolled |   |    |     |   |     |   |   |
| Lanes:       | 0           | 0 | 1 | 0 | 0           | 0 | 0 | 0 | 0            | 0 | 0 | 0 | 0            | 1 | 0  | 0   | 1 | 0   | 0 | 0 |
| Initial Vol: | 27          |   | 0 |   | 64          | 0 |   | 0 |              | 0 | 0 |   | 186          |   | 62 | 159 |   | 141 |   | 0 |
| ApproachDel: | 11.9        |   |   |   | xxxxxxx     |   |   |   | xxxxxxx      |   |   |   | xxxxxxx      |   |    |     |   |     |   |   |

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=91]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=3][total volume=639]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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  | L   | - | T   | - | R |
| Control:     | Stop Sign   |   |   |   | Stop Sign   |   |   |   | Uncontrolled |   |   |   | Uncontrolled |   |    |     |   |     |   |   |
| Lanes:       | 0           | 0 | 1 | 0 | 0           | 0 | 0 | 0 | 0            | 0 | 0 | 0 | 0            | 1 | 0  | 0   | 1 | 0   | 0 | 0 |
| Initial Vol: | 27          |   | 0 |   | 64          | 0 |   | 0 |              | 0 | 0 |   | 186          |   | 62 | 159 |   | 141 |   | 0 |

Major Street Volume: 548  
 Minor Approach Volume: 91  
 Minor Approach Volume Threshold: 380

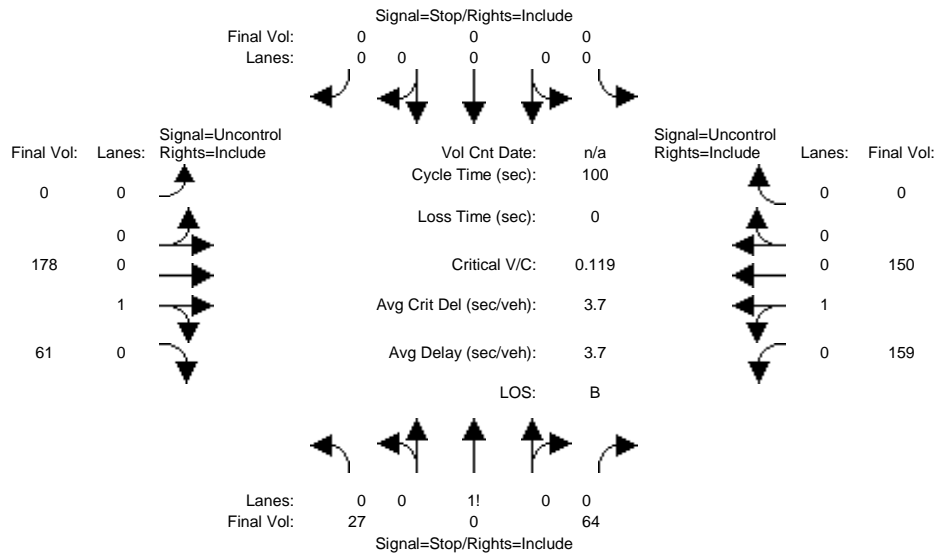
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd PM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing volume modules: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 12 columns representing critical gap modules: Critical Gp, FollowUpTim.

Table with 12 columns representing capacity modules: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing level of service modules: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 27 0 64     | 0 0 0       | 0 178 61     | 159 150 0    |
| ApproachDel: | 11.8        | xxxxxx      | 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=91]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=3][total volume=639]  
 FAIL - Total volume less than 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #13 Morse Ave & Ahwanee Ave  
 \*\*\*\*\*  
 Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 27 0 64     | 0 0 0       | 0 178 61     | 159 150 0    |

Major Street Volume: 548  
 Minor Approach Volume: 91  
 Minor Approach Volume Threshold: 380

SIGNAL WARRANT DISCLAIMER

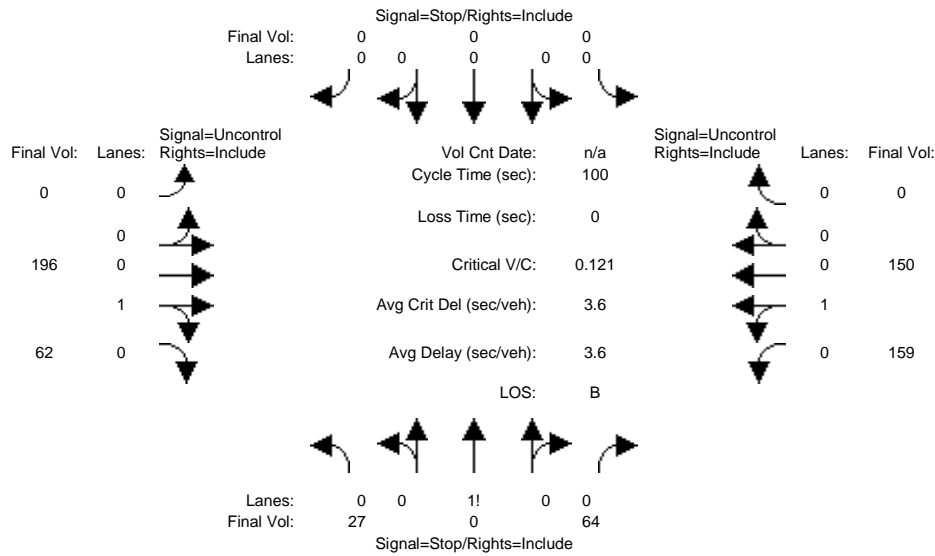
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for different movements and approaches. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 13 columns representing critical gap modules. Rows include Critical Gap and FollowUpTim.

Table with 13 columns representing capacity modules. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #13 Morse Ave & Ahwanee Ave

\*\*\*\*\*

Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 27 0 64     | 0 0 0       | 0 196 62     | 159 150 0    |
| ApproachDel: | 12.1        | xxxxxx      | 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=91]
    FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=658]
    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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future 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    | L - T - R    |
| Control:     | Stop Sign   | Stop Sign   | Uncontrolled | Uncontrolled |
| Lanes:       | 0 0 1! 0 0  | 0 0 0 0 0   | 0 0 0 1 0    | 0 1 0 0 0    |
| Initial Vol: | 27 0 64     | 0 0 0       | 0 196 62     | 159 150 0    |

```

Major Street Volume:          567
Minor Approach Volume:       91
Minor Approach Volume Threshold: 371
    
```

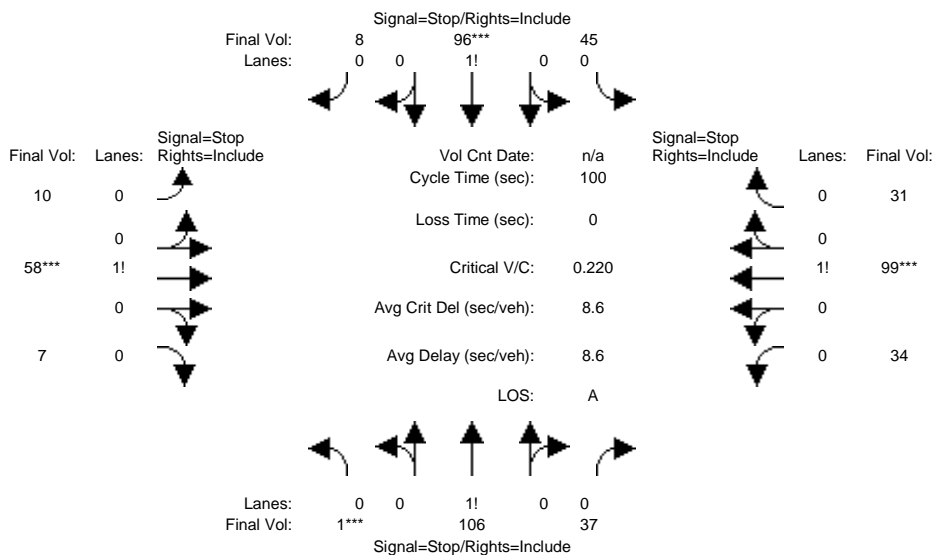
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Existing PM

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 1    | 106  | 37   | 45   | 96   | 8    | 10   | 58   | 7    | 34   | 99   | 31   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 1    | 106  | 37   | 45   | 96   | 8    | 10   | 58   | 7    | 34   | 99   | 31   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 1    | 106  | 37   | 45   | 96   | 8    | 10   | 58   | 7    | 34   | 99   | 31   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 1    | 106  | 37   | 45   | 96   | 8    | 10   | 58   | 7    | 34   | 99   | 31   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 1    | 106  | 37   | 45   | 96   | 8    | 10   | 58   | 7    | 34   | 99   | 31   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 1    | 106  | 37   | 45   | 96   | 8    | 10   | 58   | 7    | 34   | 99   | 31   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.01 | 0.73 | 0.26 | 0.30 | 0.65 | 0.05 | 0.13 | 0.78 | 0.09 | 0.21 | 0.60 | 0.19 |
| Final Sat.:             | 5    | 564  | 197  | 223  | 477  | 40   | 95   | 553  | 67   | 155  | 450  | 141  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.19 | 0.19 | 0.19 | 0.20 | 0.20 | 0.20 | 0.10 | 0.10 | 0.10 | 0.22 | 0.22 | 0.22 |
| Crit Moves:               | **** |      |      |      | **** |      |      | **** |      |      | **** |      |
| Delay/Veh:                | 8.4  | 8.4  | 8.4  | 8.7  | 8.7  | 8.7  | 8.2  | 8.2  | 8.2  | 8.8  | 8.8  | 8.8  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.4  | 8.4  | 8.4  | 8.7  | 8.7  | 8.7  | 8.2  | 8.2  | 8.2  | 8.8  | 8.8  | 8.8  |
| LOS by Move:              | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              |      | 8.4  |      |      | 8.7  |      |      | 8.2  |      |      | 8.8  |      |
| Delay Adj:                |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               |      | 8.4  |      |      | 8.7  |      |      | 8.2  |      |      | 8.8  |      |
| LOS by Appr:              |      | A    |      |      | A    |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.1  | 0.1  | 0.1  | 0.2  | 0.2  | 0.2  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #14 Morse Ave & Duane Ave

\*\*\*\*\*

Future 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  | L          | T  | R  |
| Control:                         | Stop Sign   |     |    | Stop Sign   |    |   | Stop Sign  |    |    | Stop Sign  |    |    |
| Lanes:                           | 0           | 0   | 1! | 0           | 0  | 0 | 0          | 0  | 1! | 0          | 0  | 0  |
| Initial Vol:                     | 1           | 106 | 37 | 45          | 96 | 8 | 10         | 58 | 7  | 34         | 99 | 31 |
| Major Street Volume:             |             |     |    | 293         |    |   |            |    |    |            |    |    |
| Minor Approach Volume:           |             |     |    | 164         |    |   |            |    |    |            |    |    |
| Minor Approach Volume Threshold: |             |     |    | 547         |    |   |            |    |    |            |    |    |

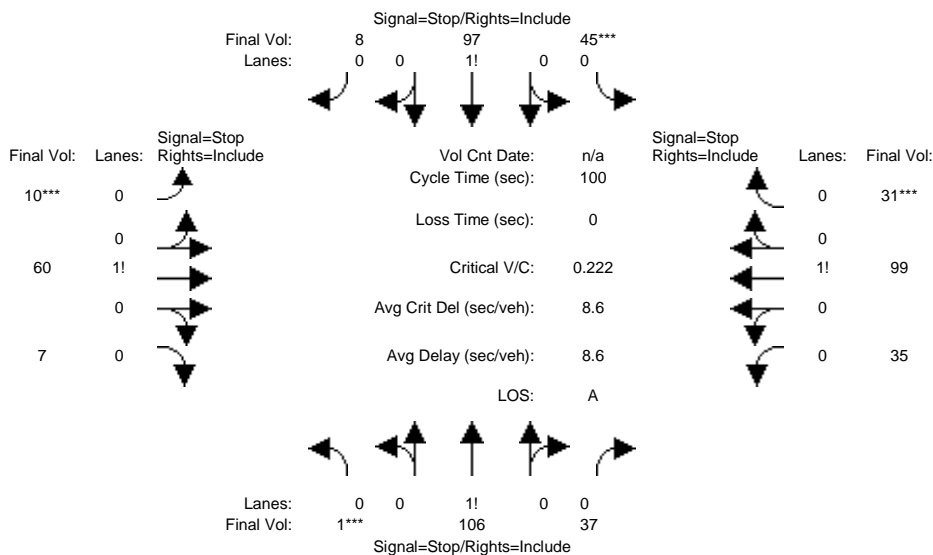
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Existing+P PM

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 1    | 106  | 37   | 45   | 96   | 8    | 10   | 58   | 7    | 34   | 99   | 31   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 1    | 106  | 37   | 45   | 96   | 8    | 10   | 58   | 7    | 34   | 99   | 31   |
| Added Vol:     | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 2    | 0    | 1    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 1    | 106  | 37   | 45   | 97   | 8    | 10   | 60   | 7    | 35   | 99   | 31   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 1    | 106  | 37   | 45   | 97   | 8    | 10   | 60   | 7    | 35   | 99   | 31   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 1    | 106  | 37   | 45   | 97   | 8    | 10   | 60   | 7    | 35   | 99   | 31   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 1    | 106  | 37   | 45   | 97   | 8    | 10   | 60   | 7    | 35   | 99   | 31   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.01 | 0.73 | 0.26 | 0.30 | 0.65 | 0.05 | 0.13 | 0.78 | 0.09 | 0.21 | 0.60 | 0.19 |
| Final Sat.:             | 5    | 563  | 196  | 222  | 478  | 39   | 93   | 556  | 65   | 158  | 447  | 140  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.19 | 0.19 | 0.19 | 0.20 | 0.20 | 0.20 | 0.11 | 0.11 | 0.11 | 0.22 | 0.22 | 0.22 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      |      |      | **** |
| Delay/Veh:                | 8.5  | 8.5  | 8.5  | 8.8  | 8.8  | 8.8  | 8.3  | 8.3  | 8.3  | 8.8  | 8.8  | 8.8  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.5  | 8.5  | 8.5  | 8.8  | 8.8  | 8.8  | 8.3  | 8.3  | 8.3  | 8.8  | 8.8  | 8.8  |
| LOS by Move:              | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              |      | 8.5  |      |      | 8.8  |      |      | 8.3  |      |      | 8.8  |      |
| Delay Adj:                |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |
| ApprAdjDel:               |      | 8.5  |      |      | 8.8  |      |      | 8.3  |      |      | 8.8  |      |
| LOS by Appr:              |      | A    |      |      | A    |      |      | A    |      |      | A    |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.1  | 0.1  | 0.1  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #14 Morse Ave & Duane Ave

\*\*\*\*\*

Future 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 | L  | -  | T  | - | R |
| Control:                         | Stop Sign   |     |    |   | Stop Sign   |    |    |    | Stop Sign  |   |    |    | Stop Sign  |   |   |    |    |    |   |   |
| Lanes:                           | 0           | 0   | 1! | 0 | 0           | 0  | 0  | 1! | 0          | 0 | 0  | 0  | 1!         | 0 | 0 | 0  | 0  | 1! | 0 | 0 |
| Initial Vol:                     | 1           | 106 | 37 |   |             | 45 | 97 | 8  |            |   | 10 | 60 | 7          |   |   | 35 | 99 | 31 |   |   |
| Major Street Volume:             |             |     |    |   | 294         |    |    |    |            |   |    |    |            |   |   |    |    |    |   |   |
| Minor Approach Volume:           |             |     |    |   | 165         |    |    |    |            |   |    |    |            |   |   |    |    |    |   |   |
| Minor Approach Volume Threshold: |             |     |    |   | 546         |    |    |    |            |   |    |    |            |   |   |    |    |    |   |   |

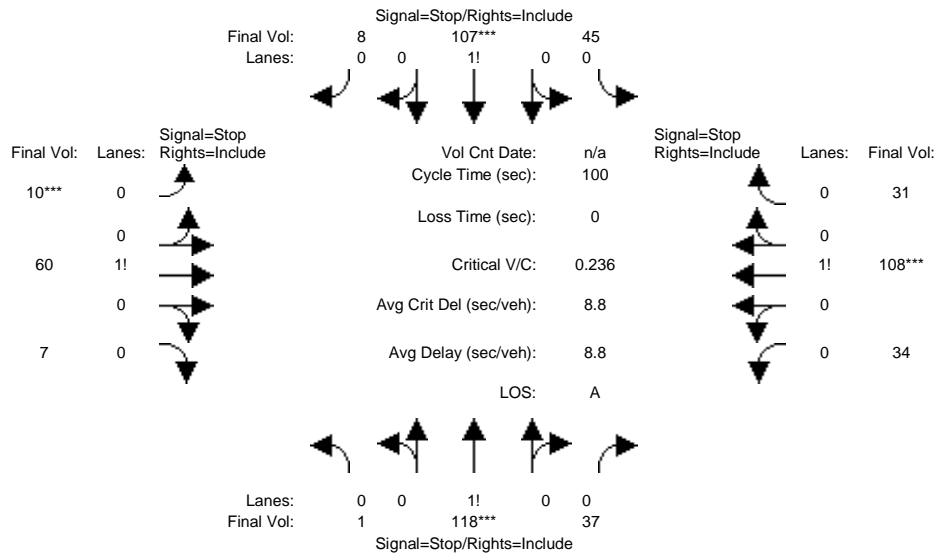
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Bkgd PM

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 1    | 118  | 37   | 45   | 107  | 8    | 10   | 60   | 7    | 34   | 108  | 31   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 1    | 118  | 37   | 45   | 107  | 8    | 10   | 60   | 7    | 34   | 108  | 31   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 1    | 118  | 37   | 45   | 107  | 8    | 10   | 60   | 7    | 34   | 108  | 31   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 1    | 118  | 37   | 45   | 107  | 8    | 10   | 60   | 7    | 34   | 108  | 31   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 1    | 118  | 37   | 45   | 107  | 8    | 10   | 60   | 7    | 34   | 108  | 31   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 1    | 118  | 37   | 45   | 107  | 8    | 10   | 60   | 7    | 34   | 108  | 31   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.01 | 0.75 | 0.24 | 0.28 | 0.67 | 0.05 | 0.13 | 0.78 | 0.09 | 0.20 | 0.62 | 0.18 |
| Final Sat.:             | 5    | 570  | 179  | 206  | 489  | 37   | 91   | 545  | 64   | 144  | 458  | 131  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.21 | 0.21 | 0.21 | 0.22 | 0.22 | 0.22 | 0.11 | 0.11 | 0.11 | 0.24 | 0.24 | 0.24 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Delay/Veh:                | 8.6  | 8.6  | 8.6  | 8.9  | 8.9  | 8.9  | 8.4  | 8.4  | 8.4  | 9.0  | 9.0  | 9.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.6  | 8.6  | 8.6  | 8.9  | 8.9  | 8.9  | 8.4  | 8.4  | 8.4  | 9.0  | 9.0  | 9.0  |
| LOS by Move:              | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              | 8.6  |      |      | 8.9  |      |      | 8.4  |      |      | 9.0  |      |      |
| Delay Adj:                | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      |
| ApprAdjDel:               | 8.6  |      |      | 8.9  |      |      | 8.4  |      |      | 9.0  |      |      |
| LOS by Appr:              | A    |      |      | A    |      |      | A    |      |      | A    |      |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.3  | 0.3  | 0.3  | 0.1  | 0.1  | 0.1  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #14 Morse Ave & Duane Ave

\*\*\*\*\*

Future 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  | L - T - R  |
| Control:                         | Stop Sign   | Stop Sign   | Stop Sign  | Stop Sign  |
| Lanes:                           | 0 0 1! 0 0  | 0 0 1! 0 0  | 0 0 1! 0 0 | 0 0 1! 0 0 |
| Initial Vol:                     | 1 118 37    | 45 107 8    | 10 60 7    | 34 108 31  |
| Major Street Volume:             | 316         |             |            |            |
| Minor Approach Volume:           | 173         |             |            |            |
| Minor Approach Volume Threshold: | 527         |             |            |            |

SIGNAL WARRANT DISCLAIMER

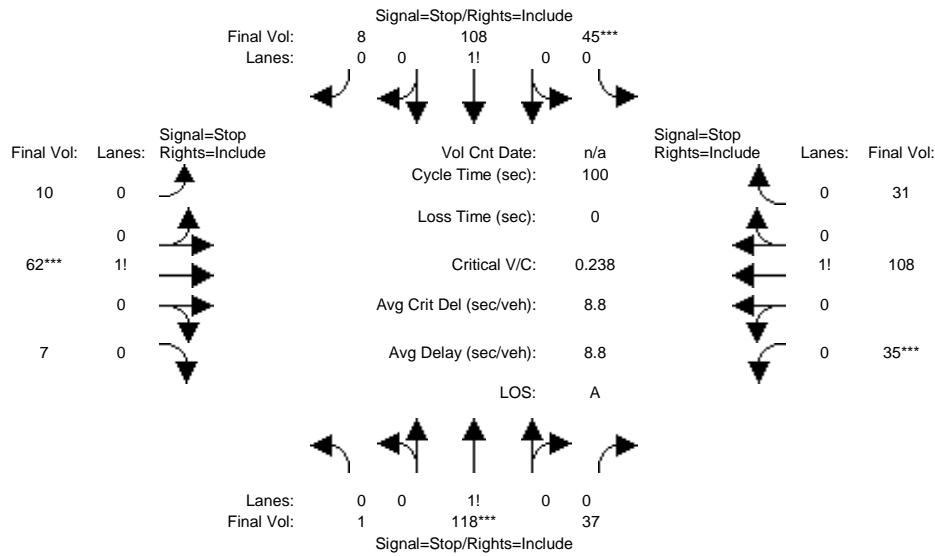
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Bkgd+P PM

Intersection #14: Morse Ave & Duane Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Duane Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
|              | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Approach:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |
| Movement:    |             |   |   |             |   |   |            |   |   |            |   |   |
| Min. Green:  | 0           | 0 | 0 | 0           | 0 | 0 | 0          | 0 | 0 | 0          | 0 | 0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 1    | 118  | 37   | 45   | 107  | 8    | 10   | 60   | 7    | 34   | 108  | 31   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 1    | 118  | 37   | 45   | 107  | 8    | 10   | 60   | 7    | 34   | 108  | 31   |
| Added Vol:     | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 2    | 0    | 1    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 1    | 118  | 37   | 45   | 108  | 8    | 10   | 62   | 7    | 35   | 108  | 31   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 1    | 118  | 37   | 45   | 108  | 8    | 10   | 62   | 7    | 35   | 108  | 31   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 1    | 118  | 37   | 45   | 108  | 8    | 10   | 62   | 7    | 35   | 108  | 31   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 1    | 118  | 37   | 45   | 108  | 8    | 10   | 62   | 7    | 35   | 108  | 31   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Adjustment:             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:                  | 0.01 | 0.75 | 0.24 | 0.28 | 0.67 | 0.05 | 0.13 | 0.78 | 0.09 | 0.20 | 0.62 | 0.18 |
| Final Sat.:             | 5    | 569  | 178  | 204  | 489  | 36   | 88   | 549  | 62   | 147  | 455  | 130  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.21 | 0.21 | 0.21 | 0.22 | 0.22 | 0.22 | 0.11 | 0.11 | 0.11 | 0.24 | 0.24 | 0.24 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Delay/Veh:                | 8.7  | 8.7  | 8.7  | 8.9  | 8.9  | 8.9  | 8.4  | 8.4  | 8.4  | 9.0  | 9.0  | 9.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 8.7  | 8.7  | 8.7  | 8.9  | 8.9  | 8.9  | 8.4  | 8.4  | 8.4  | 9.0  | 9.0  | 9.0  |
| LOS by Move:              | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| ApproachDel:              | 8.7  |      |      | 8.9  |      |      | 8.4  |      |      | 9.0  |      |      |
| Delay Adj:                | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      | 1.00 |      |      |
| ApprAdjDel:               | 8.7  |      |      | 8.9  |      |      | 8.4  |      |      | 9.0  |      |      |
| LOS by Appr:              | A    |      |      | A    |      |      | A    |      |      | A    |      |      |
| AllWayAvgQ:               | 0.2  | 0.2  | 0.2  | 0.3  | 0.3  | 0.3  | 0.1  | 0.1  | 0.1  | 0.3  | 0.3  | 0.3  |

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #14 Morse Ave & Duane Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

|                                  | North Bound |     |    |    | South Bound |    |     |    | East Bound |   |    |    | West Bound |   |   |    |     |    |    |   |
|----------------------------------|-------------|-----|----|----|-------------|----|-----|----|------------|---|----|----|------------|---|---|----|-----|----|----|---|
| Movement:                        | L           | T   | R  |    | L           | T  | R   |    | L          | T | R  |    | L          | T | R |    |     |    |    |   |
| Control:                         | Stop Sign   |     |    |    | Stop Sign   |    |     |    | Stop Sign  |   |    |    | Stop Sign  |   |   |    |     |    |    |   |
| Lanes:                           | 0           | 0   | 1! | 0  | 0           | 0  | 0   | 1! | 0          | 0 | 0  | 0  | 1!         | 0 | 0 | 0  | 0   | 1! | 0  | 0 |
| Initial Vol:                     | 1           | 118 |    | 37 |             | 45 | 108 |    | 8          |   | 10 | 62 |            | 7 |   | 35 | 108 |    | 31 |   |
| Major Street Volume:             |             |     |    |    | 317         |    |     |    |            |   |    |    |            |   |   |    |     |    |    |   |
| Minor Approach Volume:           |             |     |    |    | 174         |    |     |    |            |   |    |    |            |   |   |    |     |    |    |   |
| Minor Approach Volume Threshold: |             |     |    |    | 526         |    |     |    |            |   |    |    |            |   |   |    |     |    |    |   |

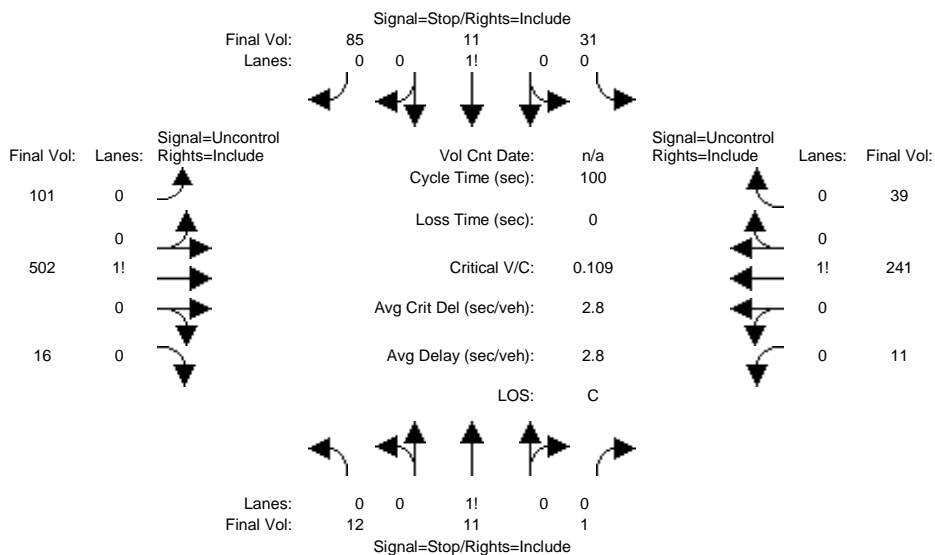
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for each approach and movement. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing critical gap modules. Rows include Critical Gap and FollowUpTime for each approach and movement.

Table with 13 columns representing capacity modules. Rows include Conflict Volume, Potent Capacity, Move Capacity, Total Capacity, and Volume/Capacity for each approach and movement.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Delay, LOS by Move, Movement, Shared Capacity, Shared Queue, Shared Con Delay, Shared LOS, Approach Delay, and Approach LOS for each approach and movement.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #15 Morse Ave & Maude Ave
\*\*\*\*\*
Future 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    | 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: | 12 11 1     | 31 11 85    | 101 502 16   | 11 241 39    |
| ApproachDel: | 16.2        | 13.5        | 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=24]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1061]  
 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=0.5]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=127]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1061]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 11 1     | 31 11 85    | 101 502 16   | 11 241 39    |

Major Street Volume: 910  
 Minor Approach Volume: 127  
 Minor Approach Volume Threshold: 245

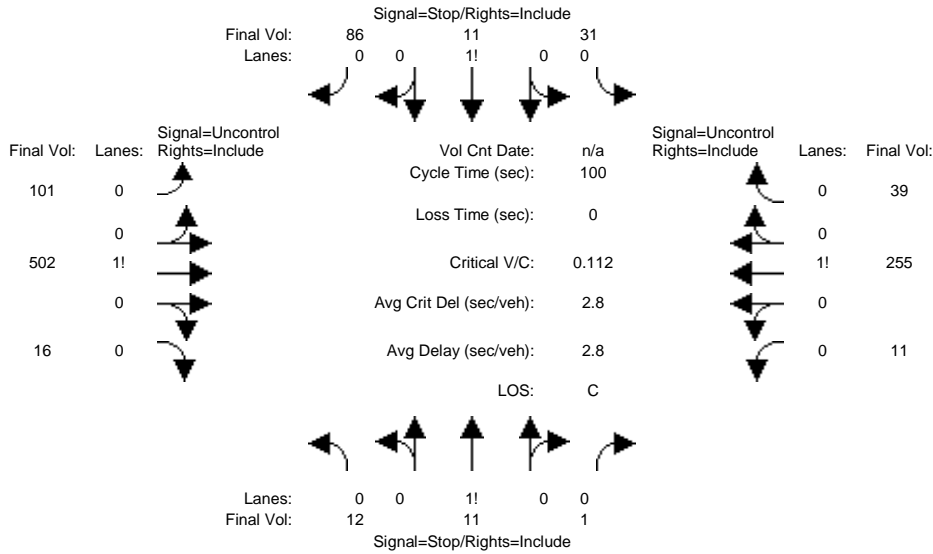
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
 2000 HCM Unsignalized (Future Volume Alternative)  
 Existing+P PM

Intersection #15: Morse Ave & Maude Ave



| Street Name: | Morse Ave   |   |   |             |   |   | Maude Ave  |   |   |            |   |   |
|--------------|-------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Approach:    | North Bound |   |   | South Bound |   |   | East Bound |   |   | West Bound |   |   |
| Movement:    | L           | T | R | L           | T | R | L          | T | R | L          | T | R |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 12          | 11   | 1    | 31          | 11   | 85   | 101        | 502  | 16   | 11         | 241  | 39   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 12          | 11   | 1    | 31          | 11   | 85   | 101        | 502  | 16   | 11         | 241  | 39   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 1    | 0          | 0    | 0    | 0          | 14   | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 12          | 11   | 1    | 31          | 11   | 86   | 101        | 502  | 16   | 11         | 255  | 39   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 12          | 11   | 1    | 31          | 11   | 86   | 101        | 502  | 16   | 11         | 255  | 39   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| FinalVolume:   | 12          | 11   | 1    | 31          | 11   | 86   | 101        | 502  | 16   | 11         | 255  | 39   |

| Critical Gap Module: | North Bound |     |     | South Bound |     |     | East Bound |      |       | West Bound |      |       |
|----------------------|-------------|-----|-----|-------------|-----|-----|------------|------|-------|------------|------|-------|
| Critical Gp:         | 7.1         | 6.5 | 6.2 | 7.1         | 6.5 | 6.2 | 4.1        | xxxx | xxxxx | 4.1        | xxxx | xxxxx |
| FollowUpTim:         | 3.5         | 4.0 | 3.3 | 3.5         | 4.0 | 3.3 | 2.2        | xxxx | xxxxx | 2.2        | xxxx | xxxxx |

| Capacity Module: | North Bound |      |       | South Bound |      |       | East Bound |      |       | West Bound |      |       |
|------------------|-------------|------|-------|-------------|------|-------|------------|------|-------|------------|------|-------|
| Cnflct Vol:      | 1057        | 1028 | 510   | 1015        | 1017 | 275   | 294        | xxxx | xxxxx | 518        | xxxx | xxxxx |
| Potent Cap.:     | 205         | 236  | 567   | 219         | 240  | 769   | 1279       | xxxx | xxxxx | 1058       | xxxx | xxxxx |
| Move Cap.:       | 162         | 214  | 567   | 195         | 217  | 769   | 1279       | xxxx | xxxxx | 1058       | xxxx | xxxxx |
| Total Cap:       | 321         | 352  | xxxxx | 335         | 353  | xxxxx | xxxx       | xxxx | xxxxx | xxxx       | xxxx | xxxxx |
| Volume/Cap:      | 0.04        | 0.03 | 0.00  | 0.09        | 0.03 | 0.11  | 0.08       | xxxx | xxxx  | 0.01       | xxxx | xxxx  |

| Level Of Service Module: | North Bound |      |       | South Bound |      |       | East Bound |      |       | West Bound |      |       |
|--------------------------|-------------|------|-------|-------------|------|-------|------------|------|-------|------------|------|-------|
| 2Way95thQ:               | xxxx        | xxxx | xxxxx | xxxx        | xxxx | xxxxx | 0.3        | xxxx | xxxxx | 0.0        | xxxx | xxxxx |
| Control Del:             | xxxxx       | xxxx | xxxxx | xxxxx       | xxxx | xxxxx | 8.1        | xxxx | xxxxx | 8.4        | xxxx | xxxxx |
| LOS by Move:             | *           | *    | *     | *           | *    | *     | A          | *    | *     | A          | *    | *     |
| Movement:                | LT          | LTR  | RT    | LT          | LTR  | RT    | LT         | LTR  | RT    | LT         | LTR  | RT    |
| Shared Cap.:             | xxxx        | 341  | xxxxx | xxxx        | 543  | xxxxx | xxxx       | xxxx | xxxxx | xxxx       | xxxx | xxxxx |
| SharedQueue:             | xxxxx       | 0.2  | xxxxx | xxxxx       | 0.9  | xxxxx | xxxxx      | xxxx | xxxxx | xxxxx      | xxxx | xxxxx |
| Shrd ConDel:             | xxxxx       | 16.4 | xxxxx | xxxxx       | 13.7 | xxxxx | xxxxx      | xxxx | xxxxx | xxxxx      | xxxx | xxxxx |
| Shared LOS:              | *           | C    | *     | *           | B    | *     | *          | *    | *     | *          | *    | *     |
| ApproachDel:             |             | 16.4 |       |             | 13.7 |       | xxxxxxx    |      |       | xxxxxxx    |      |       |
| ApproachLOS:             |             | C    |       |             | B    |       |            | *    |       |            | *    |       |

Note: Queue reported is the number of cars per lane.  
 Peak Hour Delay Signal Warrant Report  
 \*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 11 1     | 31 11 86    | 101 502 16   | 11 255 39    |
| ApproachDel: | 16.4        | 13.7        | 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=24]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1076]  
 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=0.5]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=128]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1076]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 11 1     | 31 11 86    | 101 502 16   | 11 255 39    |

Major Street Volume: 924  
 Minor Approach Volume: 128  
 Minor Approach Volume Threshold: 240

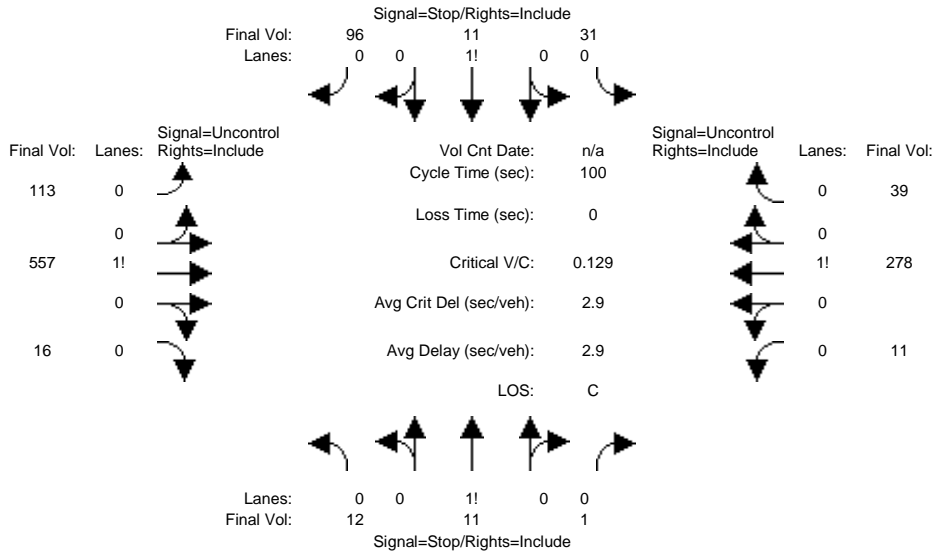
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level of Service Computation Report  
 2000 HCM Unsignalized (Future Volume Alternative)  
 Bkgd PM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

|              | 12   | 11   | 1    | 31   | 11   | 96   | 113  | 557  | 16   | 11   | 278  | 39   |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:    | 12   | 11   | 1    | 31   | 11   | 96   | 113  | 557  | 16   | 11   | 278  | 39   |
| Growth Adj:  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 12   | 11   | 1    | 31   | 11   | 96   | 113  | 557  | 16   | 11   | 278  | 39   |
| Added Vol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol: | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut: | 12   | 11   | 1    | 31   | 11   | 96   | 113  | 557  | 16   | 11   | 278  | 39   |
| User Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:  | 12   | 11   | 1    | 31   | 11   | 96   | 113  | 557  | 16   | 11   | 278  | 39   |
| Reduct Vol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| FinalVolume: | 12   | 11   | 1    | 31   | 11   | 96   | 113  | 557  | 16   | 11   | 278  | 39   |

Critical Gap Module:

|              | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx |
|--------------|-----|-----|-----|-----|-----|-----|-----|------|--------|-----|------|--------|
| Critical Gp: | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxxx | 2.2 | xxxx | xxxxxx |

Capacity Module:

|              | 1164 | 1130 | 565    | 1117 | 1119 | 298    | 317  | xxxx | xxxxxx | 573  | xxxx | xxxxxx |
|--------------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|
| Cnflct Vol:  | 1164 | 1130 | 565    | 1117 | 1119 | 298    | 317  | xxxx | xxxxxx | 573  | xxxx | xxxxxx |
| Potent Cap.: | 173  | 205  | 528    | 186  | 209  | 747    | 1255 | xxxx | xxxxxx | 1010 | xxxx | xxxxxx |
| Move Cap.:   | 132  | 184  | 528    | 163  | 187  | 747    | 1255 | xxxx | xxxxxx | 1010 | xxxx | xxxxxx |
| Total Cap:   | 285  | 320  | xxxxxx | 297  | 320  | xxxxxx | xxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx |
| Volume/Cap:  | 0.04 | 0.03 | 0.00   | 0.10 | 0.03 | 0.13   | 0.09 | xxxx | xxxx   | 0.01 | xxxx | xxxx   |

Level of Service Module:

|              | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        | 0.3           | xxxx          | xxxxxx        | 0.0           | xxxx          | xxxxxx        |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2Way95thQ:   | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        | 0.3           | xxxx          | xxxxxx        | 0.0           | xxxx          | xxxxxx        |
| Control Del: | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | 8.2           | xxxx          | xxxxxx        | 8.6           | xxxx          | xxxxxx        |
| LOS by Move: | *             | *             | *             | *             | *             | *             | A             | *             | *             | A             | *             | *             |
| Movement:    | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT |
| Shared Cap.: | xxxx          | 306           | xxxxxx        | xxxx          | 516           | xxxxxx        | xxxx          | xxxx          | xxxxxx        | xxxx          | xxxx          | xxxxxx        |
| SharedQueue: | xxxxxx        | 0.3           | xxxxxx        | xxxxxx        | 1.1           | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        |
| Shrd ConDel: | xxxxxx        | 17.8          | xxxxxx        | xxxxxx        | 14.5          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        | xxxxxx        | xxxx          | xxxxxx        |
| Shared LOS:  | *             | C             | *             | *             | B             | *             | *             | *             | *             | *             | *             | *             |
| ApproachDel: |               | 17.8          |               |               | 14.5          |               | xxxxxx        |               | xxxxxx        | xxxxxx        |               | xxxxxx        |
| ApproachLOS: |               | C             |               |               | B             |               | *             |               | *             | *             |               | *             |

Note: Queue reported is the number of cars per lane.  
 Peak Hour Delay Signal Warrant Report  
 \*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 11 1     | 31 11 96    | 113 557 16   | 11 278 39    |
| ApproachDel: | 17.8        | 14.5        | 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=24]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1176]  
 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=0.6]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=138]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1176]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 11 1     | 31 11 96    | 113 557 16   | 11 278 39    |

Major Street Volume: 1014  
 Minor Approach Volume: 138  
 Minor Approach Volume Threshold: 216

SIGNAL WARRANT DISCLAIMER

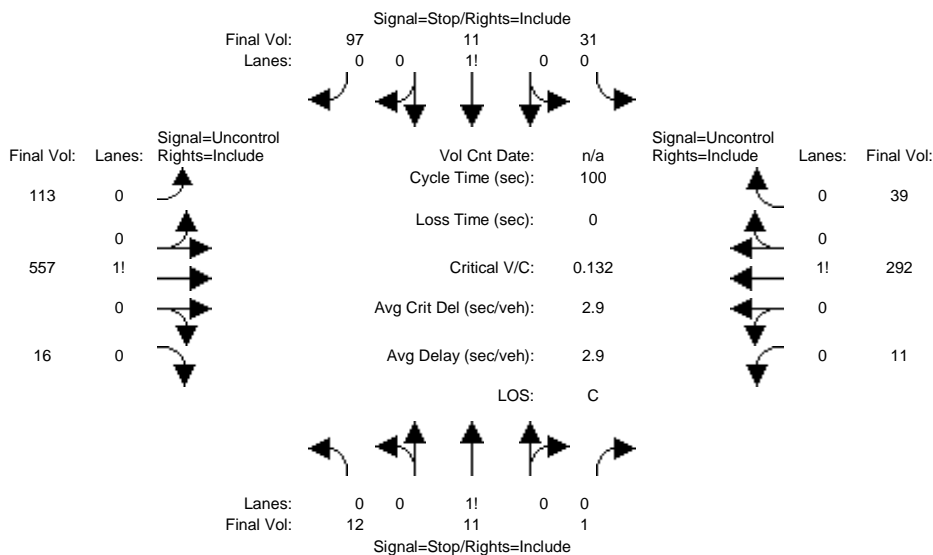
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing volume modules for different movements and approaches. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing critical gap modules. Rows include Critical Gap and FollowUp Time.

Table with 12 columns representing capacity modules. Rows include Conflict Volume, Potent Capacity, Move Capacity, Total Capacity, and Volume/Capacity.

Table with 12 columns representing level of service modules. Rows include 2Way95thQ, Control Delay, LOS by Move, Movement, Shared Capacity, Shared Queue, Shared Con Delay, Shared LOS, Approach Delay, and Approach LOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #15 Morse Ave & Maude Ave
\*\*\*\*\*
Future 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    | 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: | 12 11 1     | 31 11 97    | 113 557 16   | 11 292 39    |
| ApproachDel: | 17.9        | 14.6        | 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=24]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1191]  
 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=0.6]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=139]  
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1191]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #15 Morse Ave & Maude Ave  
 \*\*\*\*\*  
 Future 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    | 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: | 12 11 1     | 31 11 97    | 113 557 16   | 11 292 39    |

Major Street Volume: 1028  
 Minor Approach Volume: 139  
 Minor Approach Volume Threshold: 212

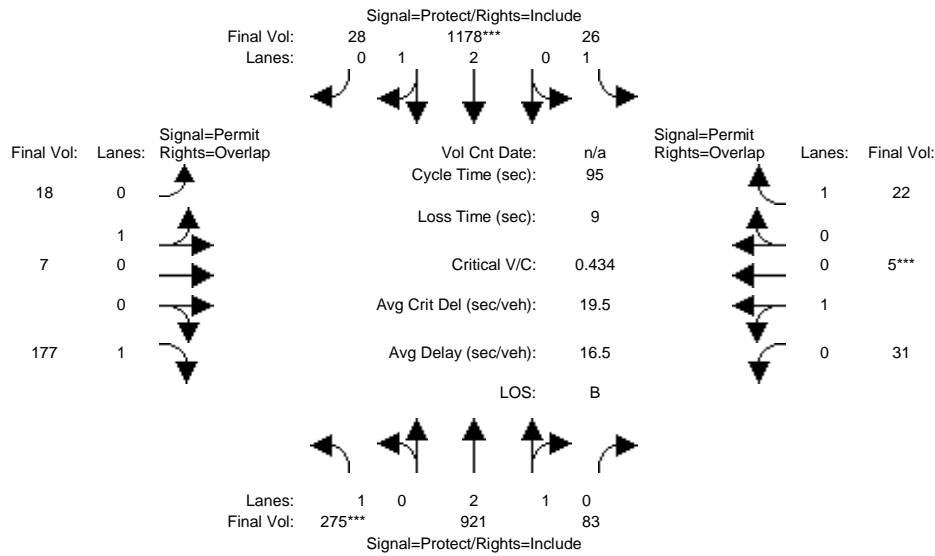
SIGNAL WARRANT DISCLAIMER

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|----------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
| Base Vol:      | 275              | 921  | 83   | 26               | 1178 | 28   | 18             | 7    | 177  | 31             | 5    | 22   |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Initial Bse:   | 275              | 921  | 83   | 26               | 1178 | 28   | 18             | 7    | 177  | 31             | 5    | 22   |
| Added Vol:     | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| Initial Fut:   | 275              | 921  | 83   | 26               | 1178 | 28   | 18             | 7    | 177  | 31             | 5    | 22   |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| PHF Volume:    | 275              | 921  | 83   | 26               | 1178 | 28   | 18             | 7    | 177  | 31             | 5    | 22   |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0              | 0    | 0    | 0              | 0    | 0    |
| Reduced Vol:   | 275              | 921  | 83   | 26               | 1178 | 28   | 18             | 7    | 177  | 31             | 5    | 22   |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Final Volume:  | 275              | 921  | 83   | 26               | 1178 | 28   | 18             | 7    | 177  | 31             | 5    | 22   |

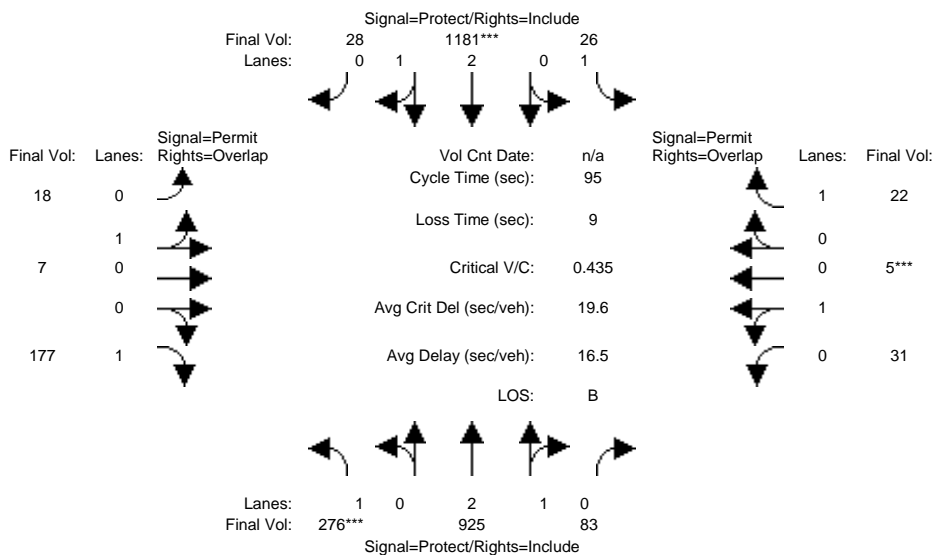
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900           | 1900 | 1900 | 1900           | 1900 | 1900 |
| Adjustment:             | 0.92             | 0.99 | 0.95 | 0.92             | 0.98 | 0.95 | 0.95           | 0.95 | 0.92 | 0.95           | 0.95 | 0.92 |
| Lanes:                  | 1.00             | 2.74 | 0.26 | 1.00             | 2.93 | 0.07 | 0.72           | 0.28 | 1.00 | 0.86           | 0.14 | 1.00 |
| Final Sat.:             | 1750             | 5136 | 463  | 1750             | 5470 | 130  | 1296           | 504  | 1750 | 1550           | 250  | 1750 |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Weddell Ave EB |      |      | Weddell Ave WB |      |      |
|---------------------------|------------------|------|------|------------------|------|------|----------------|------|------|----------------|------|------|
| Vol/Sat:                  | 0.16             | 0.18 | 0.18 | 0.01             | 0.22 | 0.22 | 0.01           | 0.01 | 0.10 | 0.02           | 0.02 | 0.01 |
| Crit Moves:               | ****             |      |      |                  | **** |      |                |      |      |                | **** |      |
| Green Time:               | 32.1             | 53.9 | 53.9 | 22.1             | 43.9 | 43.9 | 10.0           | 10.0 | 42.1 | 10.0           | 10.0 | 32.1 |
| Volume/Cap:               | 0.47             | 0.32 | 0.32 | 0.06             | 0.47 | 0.47 | 0.13           | 0.13 | 0.23 | 0.19           | 0.19 | 0.04 |
| Uniform Del:              | 24.7             | 10.9 | 10.9 | 28.4             | 17.5 | 17.5 | 38.6           | 38.6 | 16.4 | 38.8           | 38.8 | 21.1 |
| IncrcmntDel:              | 0.6              | 0.1  | 0.1  | 0.1              | 0.1  | 0.1  | 0.3            | 0.3  | 0.2  | 0.5            | 0.5  | 0.0  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0            | 0.0  | 0.0  | 0.0            | 0.0  | 0.0  |
| Delay Adj:                | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| Delay/Veh:                | 25.3             | 10.9 | 10.9 | 28.4             | 17.6 | 17.6 | 38.9           | 38.9 | 16.6 | 39.3           | 39.3 | 21.1 |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 | 1.00           | 1.00 | 1.00 |
| AdjDel/Veh:               | 25.3             | 10.9 | 10.9 | 28.4             | 17.6 | 17.6 | 38.9           | 38.9 | 16.6 | 39.3           | 39.3 | 21.1 |
| LOS by Move:              | C                | B+   | B+   | C                | B    | B    | D+             | D+   | B    | D              | D    | C+   |
| HCM2kAvgQ:                | 7                | 5    | 5    | 1                | 8    | 8    | 1              | 1    | 3    | 1              | 1    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P PM

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 275  | 921  | 83   | 26   | 1178 | 28   | 18   | 7    | 177  | 31   | 5    | 22   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 275  | 921  | 83   | 26   | 1178 | 28   | 18   | 7    | 177  | 31   | 5    | 22   |
| Added Vol:     | 1    | 4    | 0    | 0    | 3    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 276  | 925  | 83   | 26   | 1181 | 28   | 18   | 7    | 177  | 31   | 5    | 22   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 276  | 925  | 83   | 26   | 1181 | 28   | 18   | 7    | 177  | 31   | 5    | 22   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 276  | 925  | 83   | 26   | 1181 | 28   | 18   | 7    | 177  | 31   | 5    | 22   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 276  | 925  | 83   | 26   | 1181 | 28   | 18   | 7    | 177  | 31   | 5    | 22   |

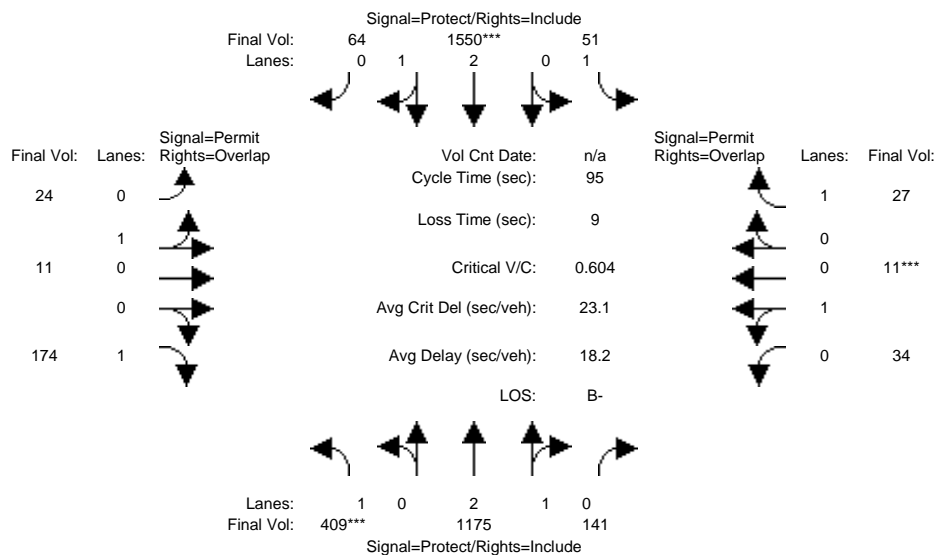
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.74 | 0.26 | 1.00 | 2.93 | 0.07 | 0.72 | 0.28 | 1.00 | 0.86 | 0.14 | 1.00 |
| Final Sat.:             | 1750 | 5138 | 461  | 1750 | 5470 | 130  | 1296 | 504  | 1750 | 1550 | 250  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.16 | 0.18 | 0.18 | 0.01 | 0.22 | 0.22 | 0.01 | 0.01 | 0.10 | 0.02 | 0.02 | 0.01 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 32.1 | 53.9 | 53.9 | 22.1 | 43.9 | 43.9 | 10.0 | 10.0 | 42.1 | 10.0 | 10.0 | 32.1 |
| Volume/Cap:               | 0.47 | 0.32 | 0.32 | 0.06 | 0.47 | 0.47 | 0.13 | 0.13 | 0.23 | 0.19 | 0.19 | 0.04 |
| Uniform Del:              | 24.7 | 10.8 | 10.8 | 28.4 | 17.5 | 17.5 | 38.6 | 38.6 | 16.4 | 38.8 | 38.8 | 21.1 |
| IncrcmntDel:              | 0.6  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.3  | 0.3  | 0.2  | 0.5  | 0.5  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 25.3 | 10.9 | 10.9 | 28.5 | 17.6 | 17.6 | 38.9 | 38.9 | 16.5 | 39.3 | 39.3 | 21.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 25.3 | 10.9 | 10.9 | 28.5 | 17.6 | 17.6 | 38.9 | 38.9 | 16.5 | 39.3 | 39.3 | 21.1 |
| LOS by Move:              | C    | B+   | B+   | C    | B    | B    | D+   | D+   | B    | D    | D    | C+   |
| HCM2kAvgQ:                | 7    | 5    | 5    | 1    | 8    | 8    | 1    | 1    | 3    | 1    | 1    | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd PM

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 409  | 1175 | 141  | 51   | 1550 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 409  | 1175 | 141  | 51   | 1550 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 409  | 1175 | 141  | 51   | 1550 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 409  | 1175 | 141  | 51   | 1550 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 409  | 1175 | 141  | 51   | 1550 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 409  | 1175 | 141  | 51   | 1550 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |

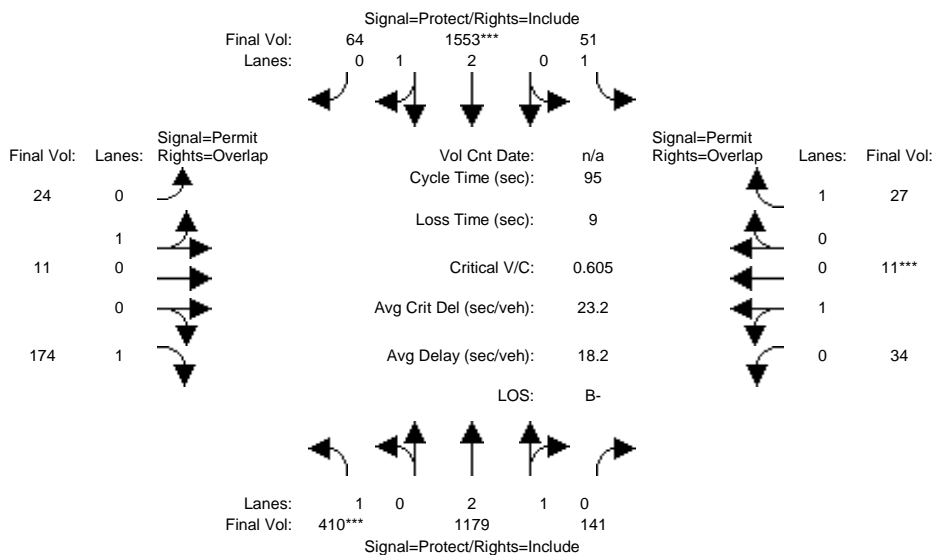
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.67 | 0.33 | 1.00 | 2.88 | 0.12 | 0.69 | 0.31 | 1.00 | 0.76 | 0.24 | 1.00 |
| Final Sat.:             | 1750 | 4999 | 600  | 1750 | 5378 | 222  | 1234 | 566  | 1750 | 1360 | 440  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.23 | 0.24 | 0.24 | 0.03 | 0.29 | 0.29 | 0.02 | 0.02 | 0.10 | 0.03 | 0.03 | 0.02 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 34.0 | 57.9 | 57.9 | 18.1 | 42.0 | 42.0 | 10.0 | 10.0 | 44.0 | 10.0 | 10.0 | 28.1 |
| Volume/Cap:               | 0.65 | 0.39 | 0.39 | 0.15 | 0.65 | 0.65 | 0.18 | 0.18 | 0.21 | 0.24 | 0.24 | 0.05 |
| Uniform Del:              | 25.5 | 9.5  | 9.5  | 32.0 | 20.8 | 20.8 | 38.8 | 38.8 | 15.2 | 39.0 | 39.0 | 23.9 |
| IncrcmntDel:              | 2.5  | 0.1  | 0.1  | 0.2  | 0.6  | 0.6  | 0.5  | 0.5  | 0.1  | 0.6  | 0.6  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 28.0 | 9.6  | 9.6  | 32.2 | 21.4 | 21.4 | 39.3 | 39.3 | 15.3 | 39.7 | 39.7 | 23.9 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.0 | 9.6  | 9.6  | 32.2 | 21.4 | 21.4 | 39.3 | 39.3 | 15.3 | 39.7 | 39.7 | 23.9 |
| LOS by Move:              | C    | A    | A    | C-   | C+   | C+   | D    | D    | B    | D    | D    | C    |
| HCM2kAvgQ:                | 11   | 6    | 6    | 1    | 13   | 13   | 1    | 1    | 3    | 1    | 1    | 1    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P PM

Intersection #16: Fair Oaks Ave & Weddell Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Weddell Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 409  | 1175 | 141  | 51   | 1550 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 409  | 1175 | 141  | 51   | 1550 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| Added Vol:     | 1    | 4    | 0    | 0    | 3    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 410  | 1179 | 141  | 51   | 1553 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 410  | 1179 | 141  | 51   | 1553 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 410  | 1179 | 141  | 51   | 1553 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 410  | 1179 | 141  | 51   | 1553 | 64   | 24   | 11   | 174  | 34   | 11   | 27   |

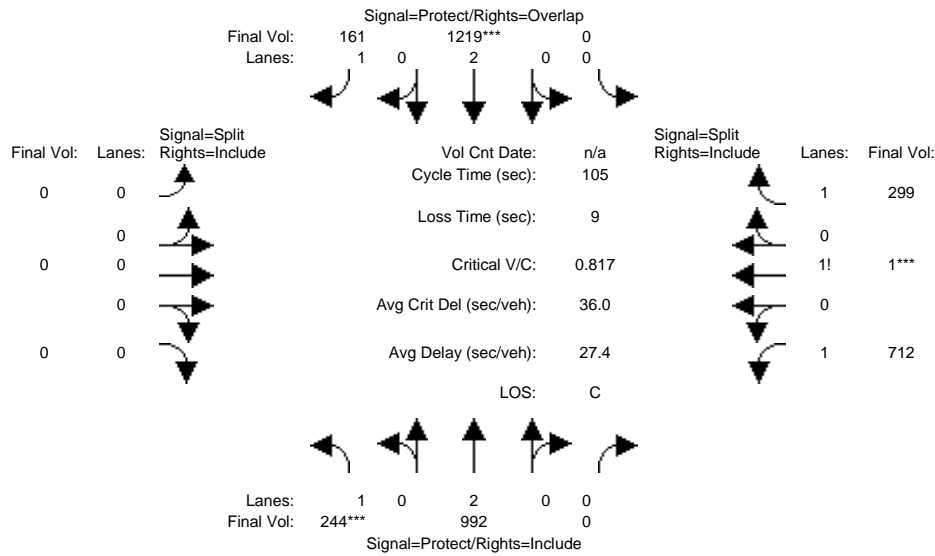
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.67 | 0.33 | 1.00 | 2.88 | 0.12 | 0.69 | 0.31 | 1.00 | 0.76 | 0.24 | 1.00 |
| Final Sat.:             | 1750 | 5001 | 598  | 1750 | 5378 | 222  | 1234 | 566  | 1750 | 1360 | 440  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.23 | 0.24 | 0.24 | 0.03 | 0.29 | 0.29 | 0.02 | 0.02 | 0.10 | 0.03 | 0.03 | 0.02 |
| Crit Moves:               | **** |      |      |      | **** |      |      |      |      | **** |      |      |
| Green Time:               | 34.0 | 57.9 | 57.9 | 18.1 | 42.0 | 42.0 | 10.0 | 10.0 | 44.0 | 10.0 | 10.0 | 28.1 |
| Volume/Cap:               | 0.65 | 0.39 | 0.39 | 0.15 | 0.65 | 0.65 | 0.18 | 0.18 | 0.21 | 0.24 | 0.24 | 0.05 |
| Uniform Del:              | 25.5 | 9.5  | 9.5  | 32.1 | 20.8 | 20.8 | 38.8 | 38.8 | 15.2 | 39.0 | 39.0 | 23.9 |
| IncrcmntDel:              | 2.5  | 0.1  | 0.1  | 0.2  | 0.6  | 0.6  | 0.5  | 0.5  | 0.1  | 0.6  | 0.6  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 28.0 | 9.6  | 9.6  | 32.3 | 21.5 | 21.5 | 39.3 | 39.3 | 15.3 | 39.7 | 39.7 | 24.0 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 28.0 | 9.6  | 9.6  | 32.3 | 21.5 | 21.5 | 39.3 | 39.3 | 15.3 | 39.7 | 39.7 | 24.0 |
| LOS by Move:              | C    | A    | A    | C-   | C+   | C+   | D    | D    | B    | D    | D    | C    |
| HCM2kAvgQ:                | 11   | 6    | 6    | 1    | 13   | 13   | 1    | 1    | 3    | 1    | 1    | 1    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing PM

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 244         | 992  | 0    | 0           | 1219 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 244         | 992  | 0    | 0           | 1219 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 244         | 992  | 0    | 0           | 1219 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 244         | 992  | 0    | 0           | 1219 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 244         | 992  | 0    | 0           | 1219 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 244         | 992  | 0    | 0           | 1219 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |

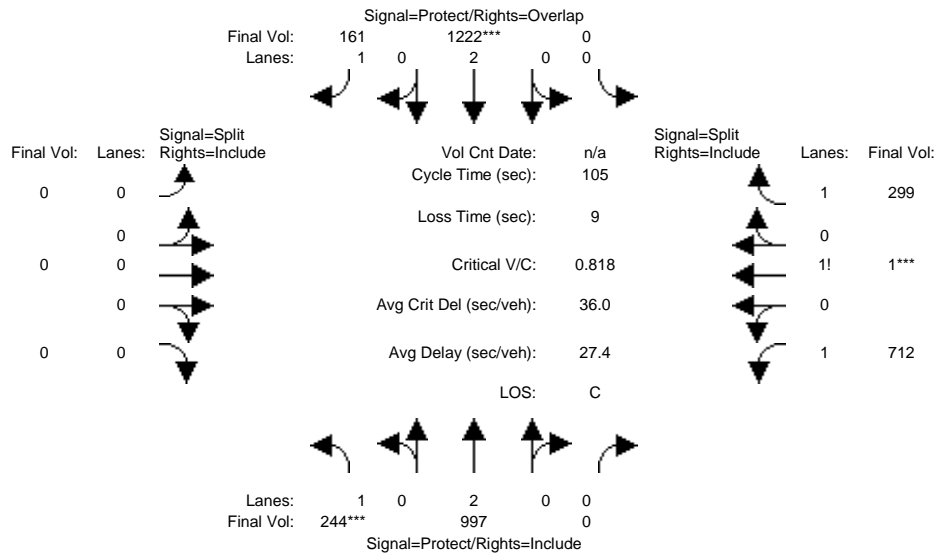
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.93       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.70       | 0.01 | 1.29 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 3017       | 3    | 2272 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.14        | 0.26 | 0.00 | 0.00        | 0.32 | 0.09 | 0.00       | 0.00 | 0.00 | 0.24       | 0.29 | 0.13 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 17.9        | 59.2 | 0.0  | 0.0         | 41.2 | 41.2 | 0.0        | 0.0  | 0.0  | 36.8       | 36.8 | 36.8 |
| Volume/Cap:               | 0.82        | 0.46 | 0.00 | 0.00        | 0.82 | 0.23 | 0.00       | 0.00 | 0.00 | 0.67       | 0.82 | 0.38 |
| Uniform Del:              | 42.0        | 13.5 | 0.0  | 0.0         | 28.5 | 21.3 | 0.0        | 0.0  | 0.0  | 29.0       | 31.0 | 25.5 |
| IncrcmntDel:              | 15.9        | 0.2  | 0.0  | 0.0         | 3.6  | 0.2  | 0.0        | 0.0  | 0.0  | 1.2        | 4.3  | 0.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 57.9        | 13.7 | 0.0  | 0.0         | 32.1 | 21.5 | 0.0        | 0.0  | 0.0  | 30.2       | 35.4 | 25.6 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 57.9        | 13.7 | 0.0  | 0.0         | 32.1 | 21.5 | 0.0        | 0.0  | 0.0  | 30.2       | 35.4 | 25.6 |
| LOS by Move:              | E+          | B    | A    | A           | C-   | C+   | A          | A    | A    | C          | D+   | C    |
| HCM2kAvgQ:                | 11          | 9    | 0    | 0           | 18   | 4    | 0          | 0    | 0    | 13         | 18   | 6    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P PM

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 244         | 992  | 0    | 0           | 1219 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 244         | 992  | 0    | 0           | 1219 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| Added Vol:     | 0           | 5    | 0    | 0           | 3    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 244         | 997  | 0    | 0           | 1222 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 244         | 997  | 0    | 0           | 1222 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 244         | 997  | 0    | 0           | 1222 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 244         | 997  | 0    | 0           | 1222 | 161  | 0          | 0    | 0    | 712        | 1    | 299  |

| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.93       | 0.95 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.70       | 0.01 | 1.29 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 3017       | 3    | 2272 |

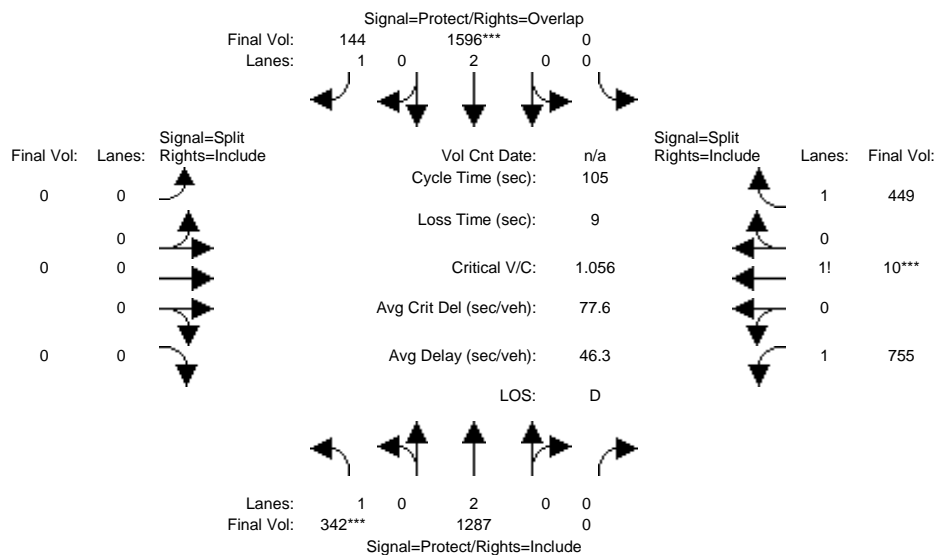
| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.14        | 0.26 | 0.00 | 0.00        | 0.32 | 0.09 | 0.00       | 0.00 | 0.00 | 0.24       | 0.29 | 0.13 |
| Crit Moves:               | ****        |      |      |             | **** |      |            |      |      |            | **** |      |
| Green Time:               | 17.9        | 59.2 | 0.0  | 0.0         | 41.3 | 41.3 | 0.0        | 0.0  | 0.0  | 36.8       | 36.8 | 36.8 |
| Volume/Cap:               | 0.82        | 0.47 | 0.00 | 0.00        | 0.82 | 0.23 | 0.00       | 0.00 | 0.00 | 0.67       | 0.82 | 0.38 |
| Uniform Del:              | 42.0        | 13.5 | 0.0  | 0.0         | 28.5 | 21.3 | 0.0        | 0.0  | 0.0  | 29.0       | 31.0 | 25.5 |
| IncrcmntDel:              | 16.0        | 0.2  | 0.0  | 0.0         | 3.7  | 0.2  | 0.0        | 0.0  | 0.0  | 1.2        | 4.4  | 0.1  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 58.0        | 13.7 | 0.0  | 0.0         | 32.1 | 21.5 | 0.0        | 0.0  | 0.0  | 30.2       | 35.4 | 25.6 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 58.0        | 13.7 | 0.0  | 0.0         | 32.1 | 21.5 | 0.0        | 0.0  | 0.0  | 30.2       | 35.4 | 25.6 |
| LOS by Move:              | E+          | B    | A    | A           | C-   | C+   | A          | A    | A    | C          | D+   | C    |
| HCM2kAvgQ:                | 11          | 9    | 0    | 0           | 18   | 4    | 0          | 0    | 0    | 13         | 18   | 6    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 342         | 1287 | 0    | 0           | 1596 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 342         | 1287 | 0    | 0           | 1596 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 342         | 1287 | 0    | 0           | 1596 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 342         | 1287 | 0    | 0           | 1596 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 342         | 1287 | 0    | 0           | 1596 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 342         | 1287 | 0    | 0           | 1596 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |

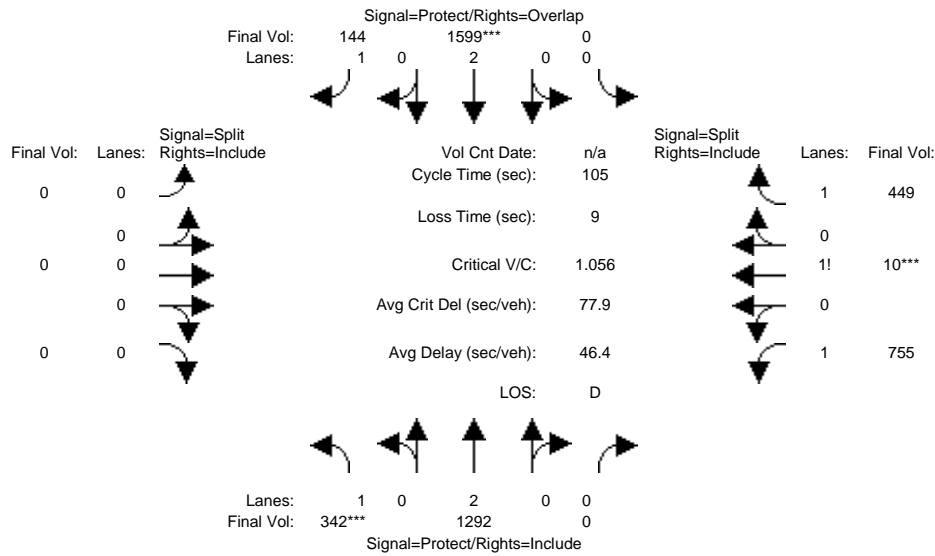
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.62       | 0.01 | 1.37 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 2829       | 29   | 2392 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.20        | 0.34 | 0.00 | 0.00        | 0.42 | 0.08 | 0.00       | 0.00 | 0.00 | 0.27       | 0.35 | 0.19 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 19.4        | 61.2 | 0.0  | 0.0         | 41.8 | 41.8 | 0.0        | 0.0  | 0.0  | 34.8       | 34.8 | 34.8 |
| Volume/Cap:               | 1.06        | 0.58 | 0.00 | 0.00        | 1.06 | 0.21 | 0.00       | 0.00 | 0.00 | 0.81       | 1.06 | 0.57 |
| Uniform Del:              | 42.8        | 13.8 | 0.0  | 0.0         | 31.6 | 20.7 | 0.0        | 0.0  | 0.0  | 32.0       | 35.1 | 28.9 |
| IncrcmntDel:              | 65.4        | 0.4  | 0.0  | 0.0         | 39.4 | 0.1  | 0.0        | 0.0  | 0.0  | 3.3        | 42.5 | 0.4  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 108.2       | 14.2 | 0.0  | 0.0         | 71.0 | 20.9 | 0.0        | 0.0  | 0.0  | 35.3       | 77.6 | 29.3 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 108.2       | 14.2 | 0.0  | 0.0         | 71.0 | 20.9 | 0.0        | 0.0  | 0.0  | 35.3       | 77.6 | 29.3 |
| LOS by Move:              | F           | B    | A    | A           | E    | C+   | A          | A    | A    | D+         | E-   | C    |
| HCM2kAvgQ:                | 19          | 13   | 0    | 0           | 33   | 3    | 0          | 0    | 0    | 17         | 31   | 10   |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P PM

Intersection #17: Fair Oaks Ave & US 101 NB



| Street Name: | Fair Oaks Ave |     |     |             |     |     | US 101 NB  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 0   | 0           | 10  | 10  | 0          | 0   | 0   | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 342         | 1287 | 0    | 0           | 1596 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 342         | 1287 | 0    | 0           | 1596 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| Added Vol:     | 0           | 5    | 0    | 0           | 3    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 342         | 1292 | 0    | 0           | 1599 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 342         | 1292 | 0    | 0           | 1599 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 342         | 1292 | 0    | 0           | 1599 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 342         | 1292 | 0    | 0           | 1599 | 144  | 0          | 0    | 0    | 755        | 10   | 449  |

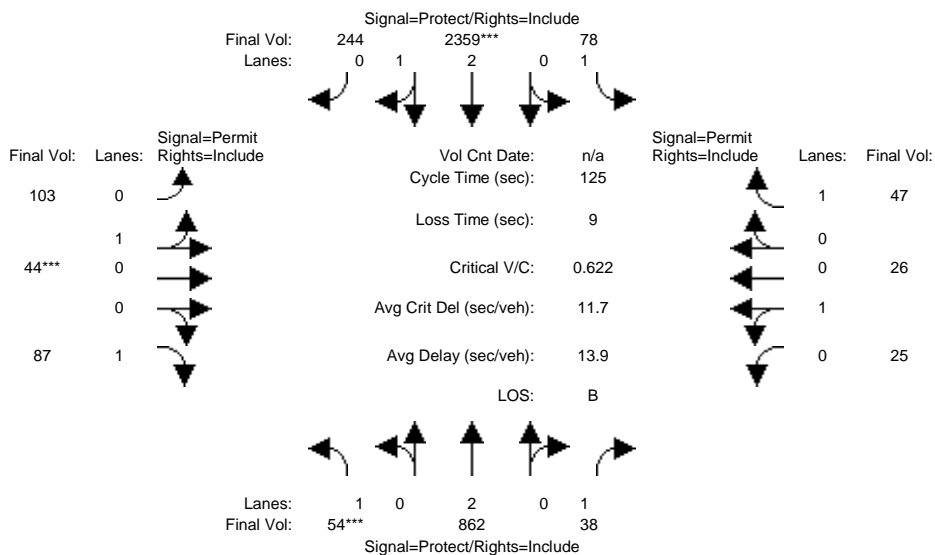
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 1.00 | 0.92 | 0.92       | 0.92 | 0.92 |
| Lanes:                  | 1.00        | 2.00 | 0.00 | 0.00        | 2.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.62       | 0.01 | 1.37 |
| Final Sat.:             | 1750        | 3800 | 0    | 0           | 3800 | 1750 | 0          | 0    | 0    | 2829       | 29   | 2392 |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.20        | 0.34 | 0.00 | 0.00        | 0.42 | 0.08 | 0.00       | 0.00 | 0.00 | 0.27       | 0.35 | 0.19 |
| Crit Moves:               | ****        |      |      | ****        |      |      |            |      |      | ****       |      |      |
| Green Time:               | 19.4        | 61.2 | 0.0  | 0.0         | 41.8 | 41.8 | 0.0        | 0.0  | 0.0  | 34.8       | 34.8 | 34.8 |
| Volume/Cap:               | 1.06        | 0.58 | 0.00 | 0.00        | 1.06 | 0.21 | 0.00       | 0.00 | 0.00 | 0.81       | 1.06 | 0.57 |
| Uniform Del:              | 42.8        | 13.8 | 0.0  | 0.0         | 31.6 | 20.7 | 0.0        | 0.0  | 0.0  | 32.0       | 35.1 | 28.9 |
| IncrcmntDel:              | 65.7        | 0.4  | 0.0  | 0.0         | 39.7 | 0.1  | 0.0        | 0.0  | 0.0  | 3.3        | 42.8 | 0.4  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 0.00 | 0.00        | 1.00 | 1.00 | 0.00       | 0.00 | 0.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 108.5       | 14.2 | 0.0  | 0.0         | 71.3 | 20.9 | 0.0        | 0.0  | 0.0  | 35.3       | 77.9 | 29.3 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 108.5       | 14.2 | 0.0  | 0.0         | 71.3 | 20.9 | 0.0        | 0.0  | 0.0  | 35.3       | 77.9 | 29.3 |
| LOS by Move:              | F           | B    | A    | A           | E    | C+   | A          | A    | A    | D+         | E-   | C    |
| HCM2kAvgQ:                | 19          | 13   | 0    | 0           | 33   | 3    | 0          | 0    | 0    | 17         | 31   | 10   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 54   | 862  | 38   | 78   | 2359 | 244  | 103  | 44   | 87   | 25   | 26   | 47   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 54   | 862  | 38   | 78   | 2359 | 244  | 103  | 44   | 87   | 25   | 26   | 47   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 54   | 862  | 38   | 78   | 2359 | 244  | 103  | 44   | 87   | 25   | 26   | 47   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 54   | 862  | 38   | 78   | 2359 | 244  | 103  | 44   | 87   | 25   | 26   | 47   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 54   | 862  | 38   | 78   | 2359 | 244  | 103  | 44   | 87   | 25   | 26   | 47   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 54   | 862  | 38   | 78   | 2359 | 244  | 103  | 44   | 87   | 25   | 26   | 47   |

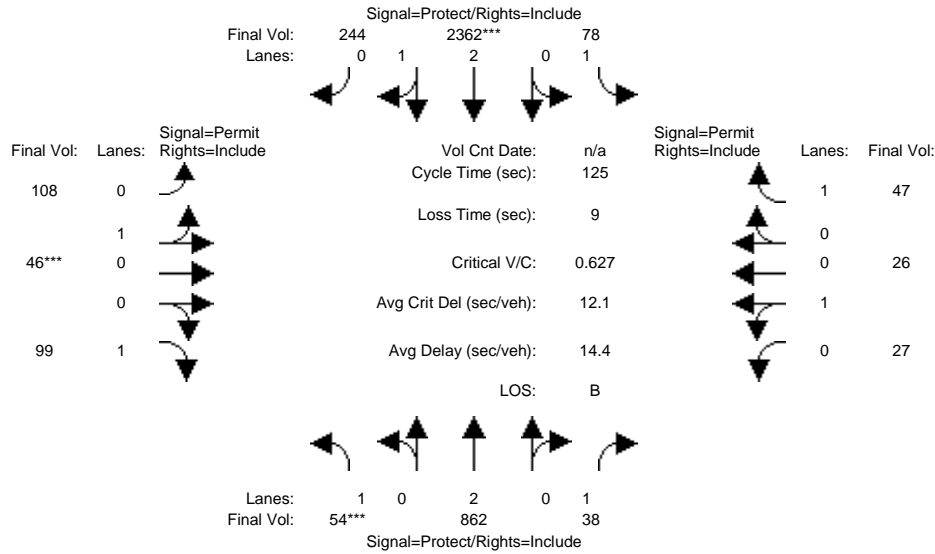
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.71 | 0.29 | 0.70 | 0.30 | 1.00 | 0.49 | 0.51 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 5074 | 525  | 1261 | 539  | 1750 | 882  | 918  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.23 | 0.02 | 0.04 | 0.46 | 0.46 | 0.08 | 0.08 | 0.05 | 0.03 | 0.03 | 0.03 |
| Crit Moves:               | ***  |      |      |      | **** |      |      | **** |      |      |      |      |
| Green Time:               | 7.0  | 80.0 | 80.0 | 19.7 | 92.7 | 92.7 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 |
| Volume/Cap:               | 0.55 | 0.35 | 0.03 | 0.28 | 0.63 | 0.63 | 0.63 | 0.63 | 0.38 | 0.22 | 0.22 | 0.21 |
| Uniform Del:              | 57.5 | 10.5 | 8.3  | 46.4 | 7.8  | 7.8  | 51.5 | 51.5 | 49.7 | 48.7 | 48.7 | 48.6 |
| IncrcmntDel:              | 6.6  | 0.1  | 0.0  | 0.6  | 0.3  | 0.3  | 5.3  | 5.3  | 1.1  | 0.5  | 0.5  | 0.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 64.1 | 10.6 | 8.3  | 46.9 | 8.1  | 8.1  | 56.8 | 56.8 | 50.8 | 49.1 | 49.1 | 49.0 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 64.1 | 10.6 | 8.3  | 46.9 | 8.1  | 8.1  | 56.8 | 56.8 | 50.8 | 49.1 | 49.1 | 49.0 |
| LOS by Move:              | E    | B+   | A    | D    | A    | A    | E+   | E+   | D    | D    | D    | D    |
| HCM2kAvgQ:                | 2    | 7    | 1    | 3    | 16   | 16   | 7    | 7    | 4    | 2    | 2    | 2    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P PM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 54   | 862  | 38   | 78   | 2359 | 244  | 103  | 44   | 87   | 25   | 26   | 47   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 54   | 862  | 38   | 78   | 2359 | 244  | 103  | 44   | 87   | 25   | 26   | 47   |
| Added Vol:     | 0    | 0    | 0    | 0    | 3    | 0    | 5    | 2    | 12   | 2    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 54   | 862  | 38   | 78   | 2362 | 244  | 108  | 46   | 99   | 27   | 26   | 47   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 54   | 862  | 38   | 78   | 2362 | 244  | 108  | 46   | 99   | 27   | 26   | 47   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 54   | 862  | 38   | 78   | 2362 | 244  | 108  | 46   | 99   | 27   | 26   | 47   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 54   | 862  | 38   | 78   | 2362 | 244  | 108  | 46   | 99   | 27   | 26   | 47   |

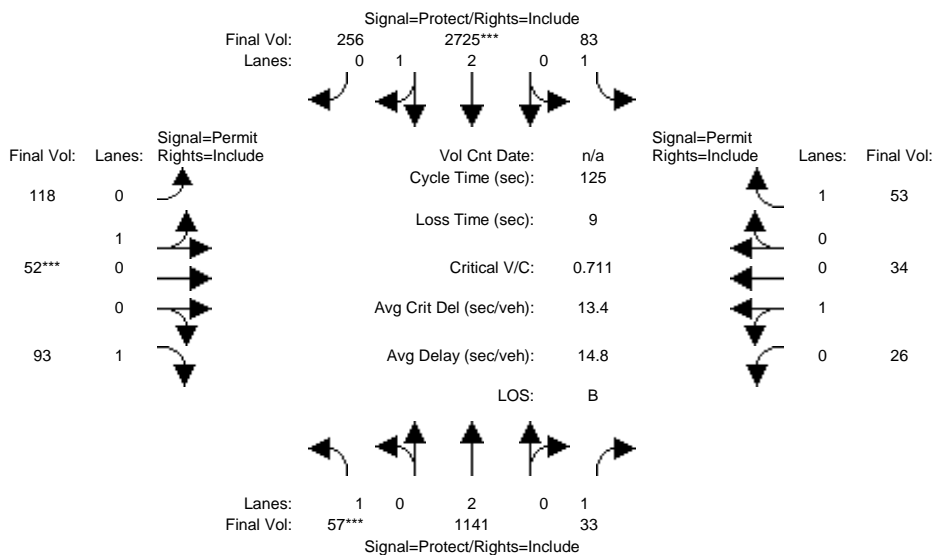
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.71 | 0.29 | 0.70 | 0.30 | 1.00 | 0.51 | 0.49 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 5075 | 524  | 1262 | 538  | 1750 | 917  | 883  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.23 | 0.02 | 0.04 | 0.47 | 0.47 | 0.09 | 0.09 | 0.06 | 0.03 | 0.03 | 0.03 |
| Crit Moves:               | ***  |      |      |      | **** |      |      | **** |      |      |      |      |
| Green Time:               | 7.0  | 79.5 | 79.5 | 19.6 | 92.1 | 92.1 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 |
| Volume/Cap:               | 0.55 | 0.36 | 0.03 | 0.28 | 0.63 | 0.63 | 0.63 | 0.63 | 0.42 | 0.22 | 0.22 | 0.20 |
| Uniform Del:              | 57.5 | 10.7 | 8.5  | 46.5 | 8.1  | 8.1  | 51.1 | 51.1 | 49.5 | 48.1 | 48.1 | 48.0 |
| IncrcmntDel:              | 6.6  | 0.1  | 0.0  | 0.6  | 0.3  | 0.3  | 5.3  | 5.3  | 1.2  | 0.5  | 0.5  | 0.4  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 64.1 | 10.8 | 8.5  | 47.1 | 8.4  | 8.4  | 56.4 | 56.4 | 50.7 | 48.6 | 48.6 | 48.4 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 64.1 | 10.8 | 8.5  | 47.1 | 8.4  | 8.4  | 56.4 | 56.4 | 50.7 | 48.6 | 48.6 | 48.4 |
| LOS by Move:              | E    | B+   | A    | D    | A    | A    | E+   | E+   | D    | D    | D    | D    |
| HCM2kAvgQ:                | 2    | 7    | 1    | 3    | 17   | 17   | 7    | 7    | 4    | 2    | 2    | 2    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 57   | 1141 | 33   | 83   | 2725 | 256  | 118  | 52   | 93   | 26   | 34   | 53   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 57   | 1141 | 33   | 83   | 2725 | 256  | 118  | 52   | 93   | 26   | 34   | 53   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 57   | 1141 | 33   | 83   | 2725 | 256  | 118  | 52   | 93   | 26   | 34   | 53   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 57   | 1141 | 33   | 83   | 2725 | 256  | 118  | 52   | 93   | 26   | 34   | 53   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 57   | 1141 | 33   | 83   | 2725 | 256  | 118  | 52   | 93   | 26   | 34   | 53   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 57   | 1141 | 33   | 83   | 2725 | 256  | 118  | 52   | 93   | 26   | 34   | 53   |

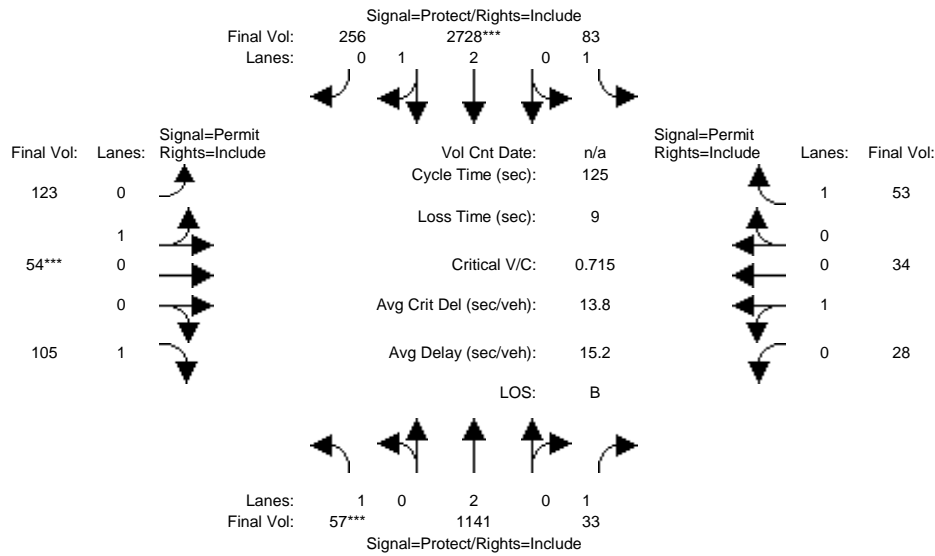
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.73 | 0.27 | 0.69 | 0.31 | 1.00 | 0.43 | 0.57 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 5118 | 481  | 1249 | 551  | 1750 | 780  | 1020 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.30 | 0.02 | 0.05 | 0.53 | 0.53 | 0.09 | 0.09 | 0.05 | 0.03 | 0.03 | 0.03 |
| Crit Moves:               | ***  |      |      |      | **** |      |      | **** |      |      |      |      |
| Green Time:               | 7.0  | 83.9 | 83.9 | 15.7 | 92.6 | 92.6 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 |
| Volume/Cap:               | 0.58 | 0.45 | 0.03 | 0.38 | 0.72 | 0.72 | 0.72 | 0.72 | 0.40 | 0.25 | 0.25 | 0.23 |
| Uniform Del:              | 57.6 | 9.6  | 6.9  | 50.2 | 9.0  | 9.0  | 52.1 | 52.1 | 49.8 | 48.8 | 48.8 | 48.6 |
| IncrcmntDel:              | 8.6  | 0.1  | 0.0  | 1.1  | 0.6  | 0.6  | 10.2 | 10.2 | 1.2  | 0.6  | 0.6  | 0.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 66.1 | 9.8  | 6.9  | 51.3 | 9.6  | 9.6  | 62.3 | 62.3 | 51.0 | 49.4 | 49.4 | 49.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 66.1 | 9.8  | 6.9  | 51.3 | 9.6  | 9.6  | 62.3 | 62.3 | 51.0 | 49.4 | 49.4 | 49.1 |
| LOS by Move:              | E    | A    | A    | D-   | A    | A    | E    | E    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 2    | 10   | 0    | 3    | 22   | 22   | 8    | 8    | 4    | 2    | 2    | 2    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P PM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Ahwanee Ave |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound  |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L           | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 10          | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 57   | 1141 | 33   | 83   | 2725 | 256  | 118  | 52   | 93   | 26   | 34   | 53   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 57   | 1141 | 33   | 83   | 2725 | 256  | 118  | 52   | 93   | 26   | 34   | 53   |
| Added Vol:     | 0    | 0    | 0    | 0    | 3    | 0    | 5    | 2    | 12   | 2    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 57   | 1141 | 33   | 83   | 2728 | 256  | 123  | 54   | 105  | 28   | 34   | 53   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 57   | 1141 | 33   | 83   | 2728 | 256  | 123  | 54   | 105  | 28   | 34   | 53   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 57   | 1141 | 33   | 83   | 2728 | 256  | 123  | 54   | 105  | 28   | 34   | 53   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 57   | 1141 | 33   | 83   | 2728 | 256  | 123  | 54   | 105  | 28   | 34   | 53   |

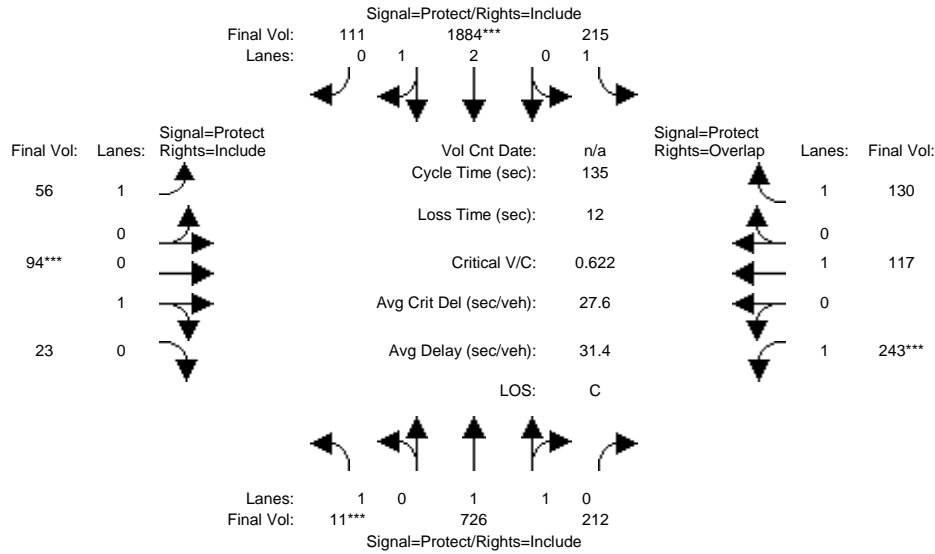
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 |
| Lanes:                  | 1.00 | 2.00 | 1.00 | 1.00 | 2.73 | 0.27 | 0.69 | 0.31 | 1.00 | 0.45 | 0.55 | 1.00 |
| Final Sat.:             | 1750 | 3800 | 1750 | 1750 | 5119 | 480  | 1251 | 549  | 1750 | 813  | 987  | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.30 | 0.02 | 0.05 | 0.53 | 0.53 | 0.10 | 0.10 | 0.06 | 0.03 | 0.03 | 0.03 |
| Crit Moves:               | ***  |      |      |      | **** |      |      | **** |      |      |      |      |
| Green Time:               | 7.0  | 83.5 | 83.5 | 15.6 | 92.0 | 92.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 |
| Volume/Cap:               | 0.58 | 0.45 | 0.03 | 0.38 | 0.72 | 0.72 | 0.72 | 0.72 | 0.44 | 0.25 | 0.25 | 0.22 |
| Uniform Del:              | 57.6 | 9.9  | 7.0  | 50.3 | 9.3  | 9.3  | 51.8 | 51.8 | 49.7 | 48.3 | 48.3 | 48.1 |
| IncrcmntDel:              | 8.6  | 0.1  | 0.0  | 1.1  | 0.7  | 0.7  | 10.2 | 10.2 | 1.3  | 0.5  | 0.5  | 0.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 66.1 | 10.0 | 7.0  | 51.4 | 10.0 | 10.0 | 62.0 | 62.0 | 51.0 | 48.9 | 48.9 | 48.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 66.1 | 10.0 | 7.0  | 51.4 | 10.0 | 10.0 | 62.0 | 62.0 | 51.0 | 48.9 | 48.9 | 48.6 |
| LOS by Move:              | E    | A    | A    | D-   | A    | A    | E    | E    | D    | D    | D    | D    |
| HCM2kAvgQ:                | 2    | 10   | 0    | 3    | 22   | 22   | 8    | 8    | 4    | 2    | 2    | 2    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing PM

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 11   | 726  | 212  | 215  | 1884 | 111  | 56   | 94   | 23   | 243  | 117  | 130  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 11   | 726  | 212  | 215  | 1884 | 111  | 56   | 94   | 23   | 243  | 117  | 130  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 11   | 726  | 212  | 215  | 1884 | 111  | 56   | 94   | 23   | 243  | 117  | 130  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 11   | 726  | 212  | 215  | 1884 | 111  | 56   | 94   | 23   | 243  | 117  | 130  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 11   | 726  | 212  | 215  | 1884 | 111  | 56   | 94   | 23   | 243  | 117  | 130  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 11   | 726  | 212  | 215  | 1884 | 111  | 56   | 94   | 23   | 243  | 117  | 130  |

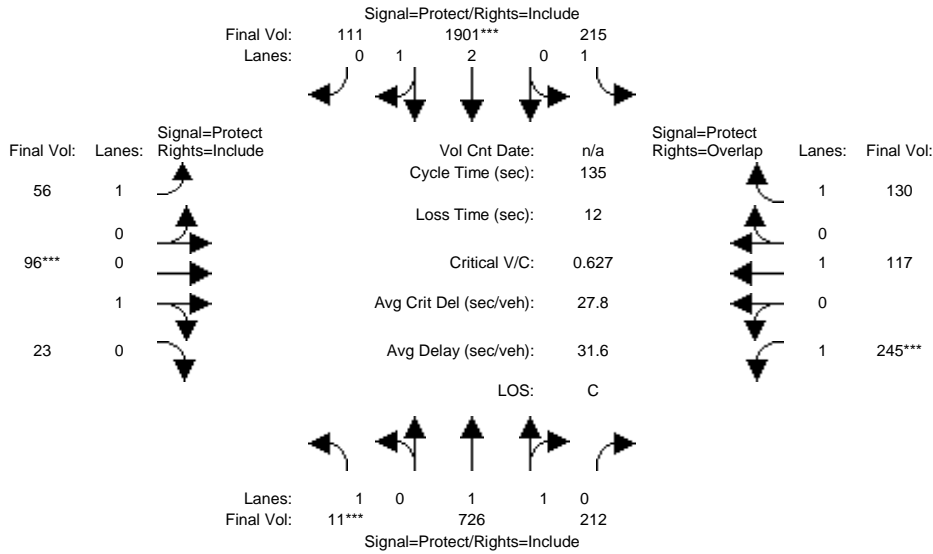
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.54 | 0.46 | 1.00 | 2.83 | 0.17 | 1.00 | 0.80 | 0.20 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 2863 | 836  | 1750 | 5288 | 312  | 1750 | 1446 | 354  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.25 | 0.25 | 0.12 | 0.36 | 0.36 | 0.03 | 0.07 | 0.07 | 0.14 | 0.06 | 0.07 |
| Crit Moves:               | **** |      |      |      | **** |      | **** |      |      | **** |      |      |
| Green Time:               | 7.0  | 54.4 | 54.4 | 26.4 | 73.8 | 73.8 | 17.4 | 13.5 | 13.5 | 28.8 | 24.8 | 51.2 |
| Volume/Cap:               | 0.12 | 0.63 | 0.63 | 0.63 | 0.65 | 0.65 | 0.25 | 0.65 | 0.65 | 0.65 | 0.33 | 0.20 |
| Uniform Del:              | 61.1 | 32.2 | 32.2 | 49.8 | 21.6 | 21.6 | 52.9 | 58.5 | 58.5 | 48.5 | 47.9 | 28.1 |
| IncrcmntDel:              | 0.6  | 0.9  | 0.9  | 3.7  | 0.5  | 0.5  | 0.6  | 8.3  | 8.3  | 4.1  | 0.6  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 61.7 | 33.1 | 33.1 | 53.6 | 22.1 | 22.1 | 53.5 | 66.8 | 66.8 | 52.6 | 48.5 | 28.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 61.7 | 33.1 | 33.1 | 53.6 | 22.1 | 22.1 | 53.5 | 66.8 | 66.8 | 52.6 | 48.5 | 28.2 |
| LOS by Move:              | E    | C-   | C-   | D-   | C+   | C+   | D-   | E    | E    | D-   | D    | C    |
| HCM2kAvgQ:                | 0    | 16   | 16   | 9    | 19   | 19   | 2    | 6    | 6    | 11   | 4    | 4    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P PM

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 11   | 726  | 212  | 215  | 1884 | 111  | 56   | 94   | 23   | 243  | 117  | 130  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 11   | 726  | 212  | 215  | 1884 | 111  | 56   | 94   | 23   | 243  | 117  | 130  |
| Added Vol:     | 0    | 0    | 0    | 0    | 17   | 0    | 0    | 2    | 0    | 2    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 11   | 726  | 212  | 215  | 1901 | 111  | 56   | 96   | 23   | 245  | 117  | 130  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 11   | 726  | 212  | 215  | 1901 | 111  | 56   | 96   | 23   | 245  | 117  | 130  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 11   | 726  | 212  | 215  | 1901 | 111  | 56   | 96   | 23   | 245  | 117  | 130  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 11   | 726  | 212  | 215  | 1901 | 111  | 56   | 96   | 23   | 245  | 117  | 130  |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.54 | 0.46 | 1.00 | 2.83 | 0.17 | 1.00 | 0.81 | 0.19 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 2863 | 836  | 1750 | 5291 | 309  | 1750 | 1452 | 348  | 1750 | 1900 | 1750 |

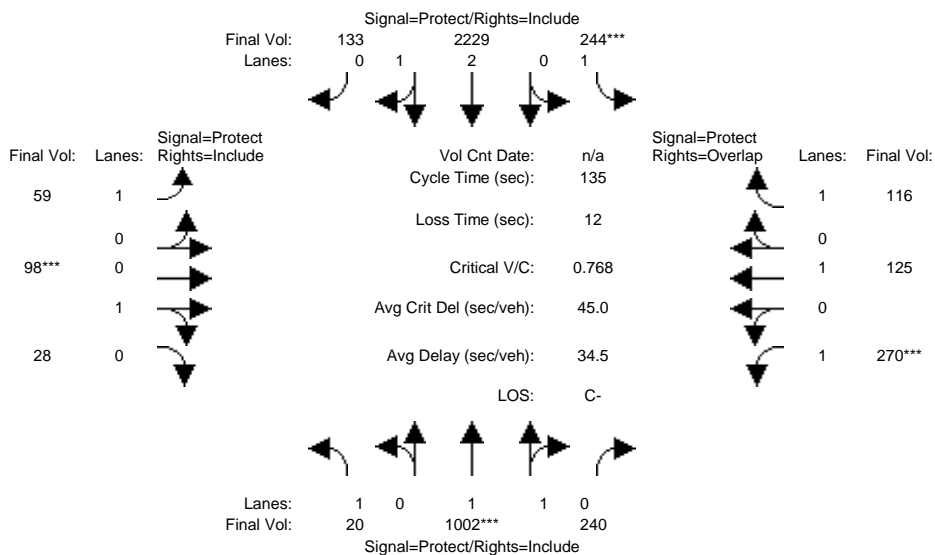
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.25 | 0.25 | 0.12 | 0.36 | 0.36 | 0.03 | 0.07 | 0.07 | 0.14 | 0.06 | 0.07 |
| Crit Moves:               | **** |      |      |      | **** |      |      | **** |      | **** |      |      |
| Green Time:               | 7.0  | 54.4 | 54.4 | 26.3 | 73.7 | 73.7 | 17.4 | 13.6 | 13.6 | 28.7 | 24.9 | 51.2 |
| Volume/Cap:               | 0.12 | 0.63 | 0.63 | 0.63 | 0.66 | 0.66 | 0.25 | 0.66 | 0.66 | 0.66 | 0.33 | 0.20 |
| Uniform Del:              | 61.1 | 32.3 | 32.3 | 49.9 | 21.7 | 21.7 | 52.9 | 58.5 | 58.5 | 48.6 | 47.9 | 28.1 |
| IncrcmntDel:              | 0.6  | 0.9  | 0.9  | 3.7  | 0.5  | 0.5  | 0.6  | 8.6  | 8.6  | 4.3  | 0.6  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 61.7 | 33.1 | 33.1 | 53.6 | 22.2 | 22.2 | 53.5 | 67.1 | 67.1 | 52.9 | 48.4 | 28.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 61.7 | 33.1 | 33.1 | 53.6 | 22.2 | 22.2 | 53.5 | 67.1 | 67.1 | 52.9 | 48.4 | 28.2 |
| LOS by Move:              | E    | C-   | C-   | D-   | C+   | C+   | D-   | E    | E    | D-   | D    | C    |
| HCM2kAvgQ:                | 0    | 16   | 16   | 9    | 19   | 19   | 2    | 6    | 6    | 11   | 4    | 4    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | 20   | 1002 | 240  | 244  | 2229 | 133  | 59   | 98   | 28   | 270  | 125  | 116  |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 20   | 1002 | 240  | 244  | 2229 | 133  | 59   | 98   | 28   | 270  | 125  | 116  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 20   | 1002 | 240  | 244  | 2229 | 133  | 59   | 98   | 28   | 270  | 125  | 116  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 20   | 1002 | 240  | 244  | 2229 | 133  | 59   | 98   | 28   | 270  | 125  | 116  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 20   | 1002 | 240  | 244  | 2229 | 133  | 59   | 98   | 28   | 270  | 125  | 116  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 20   | 1002 | 240  | 244  | 2229 | 133  | 59   | 98   | 28   | 270  | 125  | 116  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 20   | 1002 | 240  | 244  | 2229 | 133  | 59   | 98   | 28   | 270  | 125  | 116  |

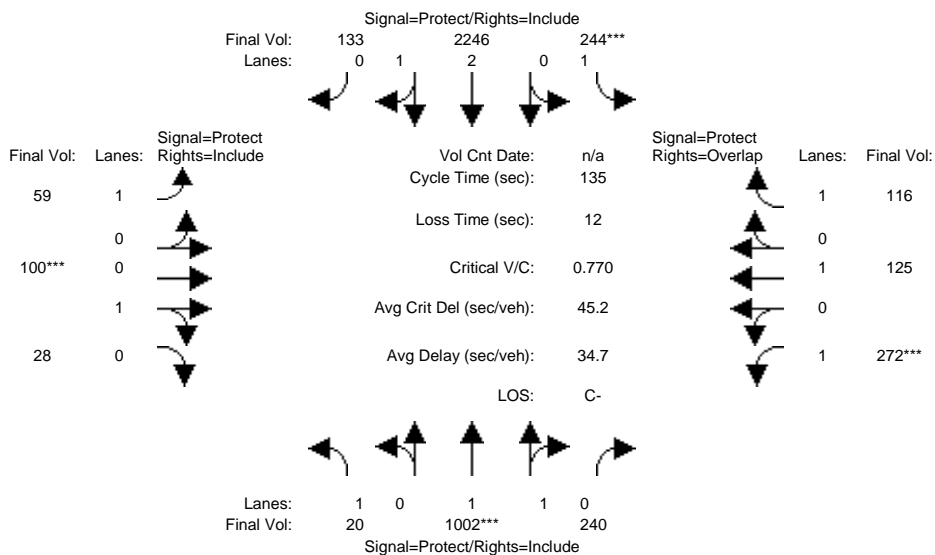
| Saturation Flow Module: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 1.00 | 1.60 | 0.40 | 1.00 | 2.82 | 0.18 | 1.00 | 0.78 | 0.22 | 1.00 | 1.00 | 1.00 |
| Final Sat.:             | 1750 | 2984 | 715  | 1750 | 5284 | 315  | 1750 | 1400 | 400  | 1750 | 1900 | 1750 |

| Capacity Analysis Module: | 0.01 | 0.34 | 0.34 | 0.14 | 0.42 | 0.42 | 0.03 | 0.07 | 0.07 | 0.15 | 0.07 | 0.07 |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.34 | 0.34 | 0.14 | 0.42 | 0.42 | 0.03 | 0.07 | 0.07 | 0.15 | 0.07 | 0.07 |
| Crit Moves:               | **** |      |      | **** |      |      | **** |      |      | **** |      |      |
| Green Time:               | 9.1  | 59.0 | 59.0 | 24.5 | 74.4 | 74.4 | 16.2 | 12.3 | 12.3 | 27.1 | 23.2 | 47.7 |
| Volume/Cap:               | 0.17 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.28 | 0.77 | 0.77 | 0.77 | 0.38 | 0.19 |
| Uniform Del:              | 59.3 | 32.2 | 32.2 | 52.5 | 23.5 | 23.5 | 54.1 | 59.9 | 59.9 | 51.0 | 49.6 | 30.2 |
| IncrcmntDel:              | 0.7  | 2.3  | 2.3  | 10.8 | 1.2  | 1.2  | 0.7  | 19.4 | 19.4 | 9.8  | 0.8  | 0.1  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 60.0 | 34.5 | 34.5 | 63.3 | 24.7 | 24.7 | 54.8 | 79.4 | 79.4 | 60.8 | 50.3 | 30.4 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 60.0 | 34.5 | 34.5 | 63.3 | 24.7 | 24.7 | 54.8 | 79.4 | 79.4 | 60.8 | 50.3 | 30.4 |
| LOS by Move:              | E    | C-   | C-   | E    | C    | C    | D-   | E-   | E-   | E    | D    | C    |
| HCM2kAvgQ:                | 1    | 23   | 23   | 10   | 25   | 25   | 3    | 7    | 7    | 13   | 5    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P PM

Intersection #19: Fair Oaks Ave & Duane Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Duane Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Duane Ave EB |      |      | Duane Ave WB |      |      |
|----------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Base Vol:      | 20               | 1002 | 240  | 244              | 2229 | 133  | 59           | 98   | 28   | 270          | 125  | 116  |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Initial Bse:   | 20               | 1002 | 240  | 244              | 2229 | 133  | 59           | 98   | 28   | 270          | 125  | 116  |
| Added Vol:     | 0                | 0    | 0    | 0                | 17   | 0    | 0            | 2    | 0    | 2            | 0    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0            | 0    | 0    | 0            | 0    | 0    |
| Initial Fut:   | 20               | 1002 | 240  | 244              | 2246 | 133  | 59           | 100  | 28   | 272          | 125  | 116  |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| PHF Volume:    | 20               | 1002 | 240  | 244              | 2246 | 133  | 59           | 100  | 28   | 272          | 125  | 116  |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0            | 0    | 0    | 0            | 0    | 0    |
| Reduced Vol:   | 20               | 1002 | 240  | 244              | 2246 | 133  | 59           | 100  | 28   | 272          | 125  | 116  |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Final Volume:  | 20               | 1002 | 240  | 244              | 2246 | 133  | 59           | 100  | 28   | 272          | 125  | 116  |

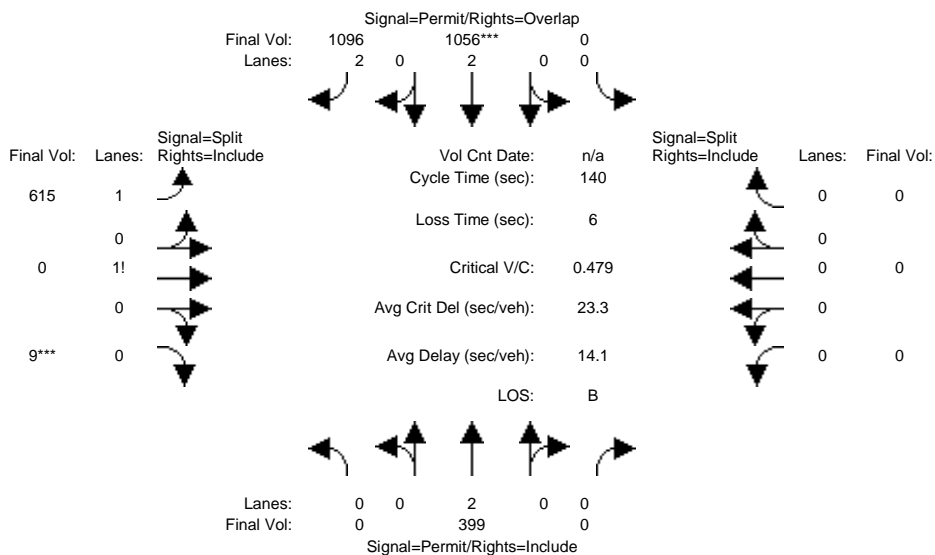
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Duane Ave EB |      |      | Duane Ave WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900         | 1900 | 1900 | 1900         | 1900 | 1900 |
| Adjustment:             | 0.92             | 0.98 | 0.95 | 0.92             | 0.98 | 0.95 | 0.92         | 0.95 | 0.95 | 0.92         | 1.00 | 0.92 |
| Lanes:                  | 1.00             | 1.60 | 0.40 | 1.00             | 2.83 | 0.17 | 1.00         | 0.78 | 0.22 | 1.00         | 1.00 | 1.00 |
| Final Sat.:             | 1750             | 2984 | 715  | 1750             | 5287 | 313  | 1750         | 1406 | 394  | 1750         | 1900 | 1750 |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Duane Ave EB |      |      | Duane Ave WB |      |      |
|---------------------------|------------------|------|------|------------------|------|------|--------------|------|------|--------------|------|------|
| Vol/Sat:                  | 0.01             | 0.34 | 0.34 | 0.14             | 0.42 | 0.42 | 0.03         | 0.07 | 0.07 | 0.16         | 0.07 | 0.07 |
| Crit Moves:               | ****             |      |      | ****             |      |      | ****         |      |      | ****         |      |      |
| Green Time:               | 9.1              | 58.9 | 58.9 | 24.4             | 74.2 | 74.2 | 16.4         | 12.5 | 12.5 | 27.2         | 23.4 | 47.8 |
| Volume/Cap:               | 0.17             | 0.77 | 0.77 | 0.77             | 0.77 | 0.77 | 0.28         | 0.77 | 0.77 | 0.77         | 0.38 | 0.19 |
| Uniform Del:              | 59.4             | 32.3 | 32.3 | 52.6             | 23.8 | 23.8 | 54.0         | 59.9 | 59.9 | 50.9         | 49.4 | 30.2 |
| IncrcmntDel:              | 0.7              | 2.3  | 2.3  | 11.0             | 1.3  | 1.3  | 0.7          | 19.5 | 19.5 | 9.9          | 0.7  | 0.1  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0          | 0.0  | 0.0  | 0.0          | 0.0  | 0.0  |
| Delay Adj:                | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| Delay/Veh:                | 60.1             | 34.7 | 34.7 | 63.6             | 25.0 | 25.0 | 54.7         | 79.4 | 79.4 | 60.9         | 50.2 | 30.3 |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 | 1.00         | 1.00 | 1.00 |
| AdjDel/Veh:               | 60.1             | 34.7 | 34.7 | 63.6             | 25.0 | 25.0 | 54.7         | 79.4 | 79.4 | 60.9         | 50.2 | 30.3 |
| LOS by Move:              | E                | C-   | C-   | E                | C    | C    | D-           | E-   | E-   | E            | D    | C    |
| HCM2kAvgQ:                | 1                | 23   | 23   | 10               | 25   | 25   | 3            | 7    | 7    | 13           | 5    | 3    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 399  | 0    | 0    | 1056 | 1096 | 615  | 0    | 9    | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 399  | 0    | 0    | 1056 | 1096 | 615  | 0    | 9    | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 399  | 0    | 0    | 1056 | 1096 | 615  | 0    | 9    | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 399  | 0    | 0    | 1056 | 1096 | 615  | 0    | 9    | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 399  | 0    | 0    | 1056 | 1096 | 615  | 0    | 9    | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 399  | 0    | 0    | 1056 | 1096 | 615  | 0    | 9    | 0    | 0    | 0    |

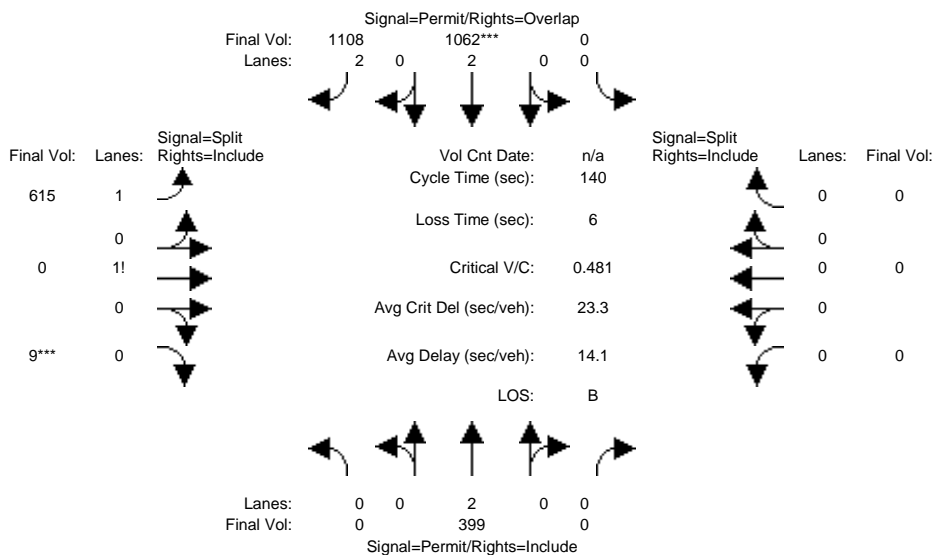
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 1.97 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 3800 | 0    | 0    | 3800 | 3150 | 3450 | 0    | 50   | 0    | 0    | 0    |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.11 | 0.00 | 0.00 | 0.28 | 0.35  | 0.18 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               |      |      |      |      | **** |       |      |      | **** |      |      |      |
| Green Time:               | 0.0  | 81.2 | 0.0  | 0.0  | 81.2 | 134.0 | 52.8 | 0.0  | 52.8 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.18 | 0.00 | 0.00 | 0.48 | 0.36  | 0.47 | 0.00 | 0.48 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 13.8 | 0.0  | 0.0  | 17.1 | 0.2   | 33.0 | 0.0  | 33.1 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.0  | 0.0  | 0.0  | 0.2  | 0.1   | 0.3  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 13.8 | 0.0  | 0.0  | 17.3 | 0.3   | 33.3 | 0.0  | 33.4 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 13.8 | 0.0  | 0.0  | 17.3 | 0.3   | 33.3 | 0.0  | 33.4 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | B    | A    | A    | B    | A     | C-   | A    | C-   | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 4    | 0    | 0    | 13   | 2     | 10   | 0    | 11   | 0    | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P PM

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 0    | 399  | 0    | 0    | 1056 | 1096 | 615  | 0    | 9    | 0    | 0    | 0    |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 0    | 399  | 0    | 0    | 1056 | 1096 | 615  | 0    | 9    | 0    | 0    | 0    |
| Added Vol:     | 0    | 0    | 0    | 0    | 6    | 12   | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 0    | 399  | 0    | 0    | 1062 | 1108 | 615  | 0    | 9    | 0    | 0    | 0    |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 0    | 399  | 0    | 0    | 1062 | 1108 | 615  | 0    | 9    | 0    | 0    | 0    |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 0    | 399  | 0    | 0    | 1062 | 1108 | 615  | 0    | 9    | 0    | 0    | 0    |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 0    | 399  | 0    | 0    | 1062 | 1108 | 615  | 0    | 9    | 0    | 0    | 0    |

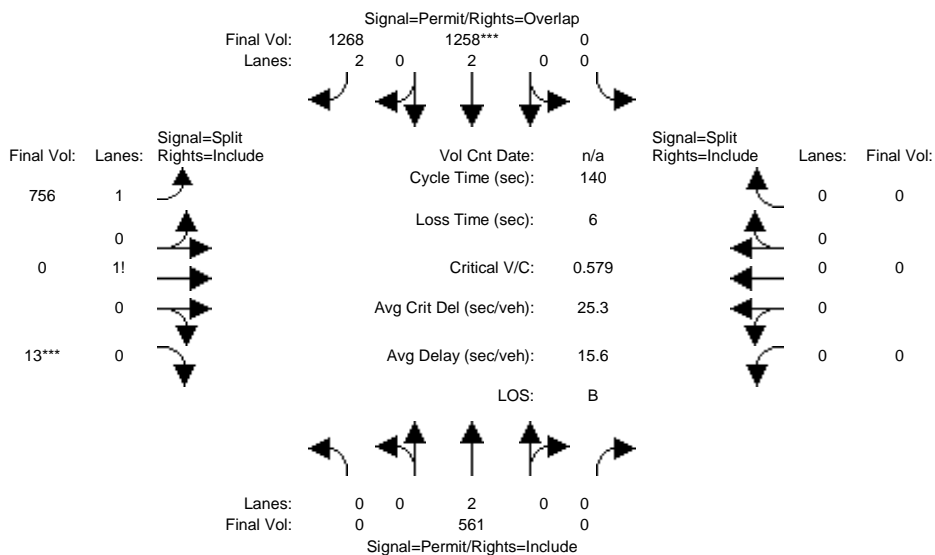
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes:                  | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 1.97 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 |
| Final Sat.:             | 0    | 3800 | 0    | 0    | 3800 | 3150 | 3450 | 0    | 50   | 0    | 0    | 0    |

| Capacity Analysis Module: |      |      |      |      |      |       |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|-------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.00 | 0.11 | 0.00 | 0.00 | 0.28 | 0.35  | 0.18 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 |
| Crit Moves:               |      |      |      |      | **** |       |      |      | **** |      |      |      |
| Green Time:               | 0.0  | 81.4 | 0.0  | 0.0  | 81.4 | 134.0 | 52.6 | 0.0  | 52.6 | 0.0  | 0.0  | 0.0  |
| Volume/Cap:               | 0.00 | 0.18 | 0.00 | 0.00 | 0.48 | 0.37  | 0.47 | 0.00 | 0.48 | 0.00 | 0.00 | 0.00 |
| Uniform Del:              | 0.0  | 13.7 | 0.0  | 0.0  | 17.0 | 0.2   | 33.2 | 0.0  | 33.3 | 0.0  | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0  | 0.0  | 0.0  | 0.0  | 0.2  | 0.1   | 0.3  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh:                | 0.0  | 13.8 | 0.0  | 0.0  | 17.2 | 0.3   | 33.4 | 0.0  | 33.6 | 0.0  | 0.0  | 0.0  |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0  | 13.8 | 0.0  | 0.0  | 17.2 | 0.3   | 33.4 | 0.0  | 33.6 | 0.0  | 0.0  | 0.0  |
| LOS by Move:              | A    | B    | A    | A    | B    | A     | C-   | A    | C-   | A    | A    | A    |
| HCM2kAvgQ:                | 0    | 4    | 0    | 0    | 13   | 2     | 10   | 0    | 11   | 0    | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Wolfe Rd EB |      |      | Wolfe Rd WB |      |      |
|----------------|------------------|------|------|------------------|------|------|-------------|------|------|-------------|------|------|
| Base Vol:      | 0                | 561  | 0    | 0                | 1258 | 1268 | 756         | 0    | 13   | 0           | 0    | 0    |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| Initial Bse:   | 0                | 561  | 0    | 0                | 1258 | 1268 | 756         | 0    | 13   | 0           | 0    | 0    |
| Added Vol:     | 0                | 0    | 0    | 0                | 0    | 0    | 0           | 0    | 0    | 0           | 0    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0           | 0    | 0    | 0           | 0    | 0    |
| Initial Fut:   | 0                | 561  | 0    | 0                | 1258 | 1268 | 756         | 0    | 13   | 0           | 0    | 0    |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| PHF Volume:    | 0                | 561  | 0    | 0                | 1258 | 1268 | 756         | 0    | 13   | 0           | 0    | 0    |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0           | 0    | 0    | 0           | 0    | 0    |
| Reduced Vol:   | 0                | 561  | 0    | 0                | 1258 | 1268 | 756         | 0    | 13   | 0           | 0    | 0    |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| Final Volume:  | 0                | 561  | 0    | 0                | 1258 | 1268 | 756         | 0    | 13   | 0           | 0    | 0    |

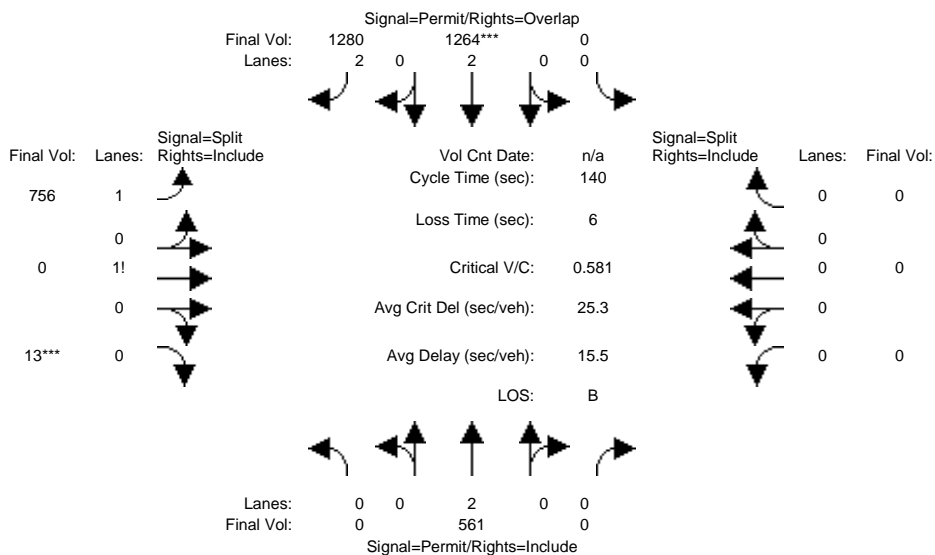
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Wolfe Rd EB |      |      | Wolfe Rd WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|-------------|------|------|-------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 |
| Adjustment:             | 0.92             | 1.00 | 0.92 | 0.92             | 1.00 | 0.83 | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 |
| Lanes:                  | 0.00             | 2.00 | 0.00 | 0.00             | 2.00 | 2.00 | 1.97        | 0.00 | 0.03 | 0.00        | 0.00 | 0.00 |
| Final Sat.:             | 0                | 3800 | 0    | 0                | 3800 | 3150 | 3442        | 0    | 58   | 0           | 0    | 0    |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |       | Wolfe Rd EB |      |      | Wolfe Rd WB |      |      |
|---------------------------|------------------|------|------|------------------|------|-------|-------------|------|------|-------------|------|------|
| Vol/Sat:                  | 0.00             | 0.15 | 0.00 | 0.00             | 0.33 | 0.40  | 0.22        | 0.00 | 0.22 | 0.00        | 0.00 | 0.00 |
| Crit Moves:               |                  |      |      |                  | **** |       |             |      | **** |             |      |      |
| Green Time:               | 0.0              | 80.0 | 0.0  | 0.0              | 80.0 | 134.0 | 54.0        | 0.0  | 54.0 | 0.0         | 0.0  | 0.0  |
| Volume/Cap:               | 0.00             | 0.26 | 0.00 | 0.00             | 0.58 | 0.42  | 0.57        | 0.00 | 0.58 | 0.00        | 0.00 | 0.00 |
| Uniform Del:              | 0.0              | 15.1 | 0.0  | 0.0              | 19.2 | 0.2   | 33.9        | 0.0  | 34.0 | 0.0         | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0              | 0.1  | 0.0  | 0.0              | 0.4  | 0.1   | 0.6         | 0.0  | 0.6  | 0.0         | 0.0  | 0.0  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| Delay Adj:                | 0.00             | 1.00 | 0.00 | 0.00             | 1.00 | 1.00  | 1.00        | 0.00 | 1.00 | 0.00        | 0.00 | 0.00 |
| Delay/Veh:                | 0.0              | 15.1 | 0.0  | 0.0              | 19.6 | 0.3   | 34.4        | 0.0  | 34.7 | 0.0         | 0.0  | 0.0  |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0              | 15.1 | 0.0  | 0.0              | 19.6 | 0.3   | 34.4        | 0.0  | 34.7 | 0.0         | 0.0  | 0.0  |
| LOS by Move:              | A                | B    | A    | A                | B-   | A     | C-          | A    | C-   | A           | A    | A    |
| HCM2kAvgQ:                | 0                | 6    | 0    | 0                | 16   | 3     | 13          | 0    | 14   | 0           | 0    | 0    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Bkgd+P PM

Intersection #20: Fair Oaks Ave & Wolfe Rd



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Wolfe Rd   |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 0             | 10  | 0   | 0           | 10  | 10  | 10         | 0   | 10  | 0          | 0   | 0   |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Wolfe Rd EB |      |      | Wolfe Rd WB |      |      |
|----------------|------------------|------|------|------------------|------|------|-------------|------|------|-------------|------|------|
| Base Vol:      | 0                | 561  | 0    | 0                | 1258 | 1268 | 756         | 0    | 13   | 0           | 0    | 0    |
| Growth Adj:    | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| Initial Bse:   | 0                | 561  | 0    | 0                | 1258 | 1268 | 756         | 0    | 13   | 0           | 0    | 0    |
| Added Vol:     | 0                | 0    | 0    | 0                | 6    | 12   | 0           | 0    | 0    | 0           | 0    | 0    |
| PasserByVol:   | 0                | 0    | 0    | 0                | 0    | 0    | 0           | 0    | 0    | 0           | 0    | 0    |
| Initial Fut:   | 0                | 561  | 0    | 0                | 1264 | 1280 | 756         | 0    | 13   | 0           | 0    | 0    |
| User Adj:      | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| PHF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| PHF Volume:    | 0                | 561  | 0    | 0                | 1264 | 1280 | 756         | 0    | 13   | 0           | 0    | 0    |
| Reduct Vol:    | 0                | 0    | 0    | 0                | 0    | 0    | 0           | 0    | 0    | 0           | 0    | 0    |
| Reduced Vol:   | 0                | 561  | 0    | 0                | 1264 | 1280 | 756         | 0    | 13   | 0           | 0    | 0    |
| PCE Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| MLF Adj:       | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| Final Volume:  | 0                | 561  | 0    | 0                | 1264 | 1280 | 756         | 0    | 13   | 0           | 0    | 0    |

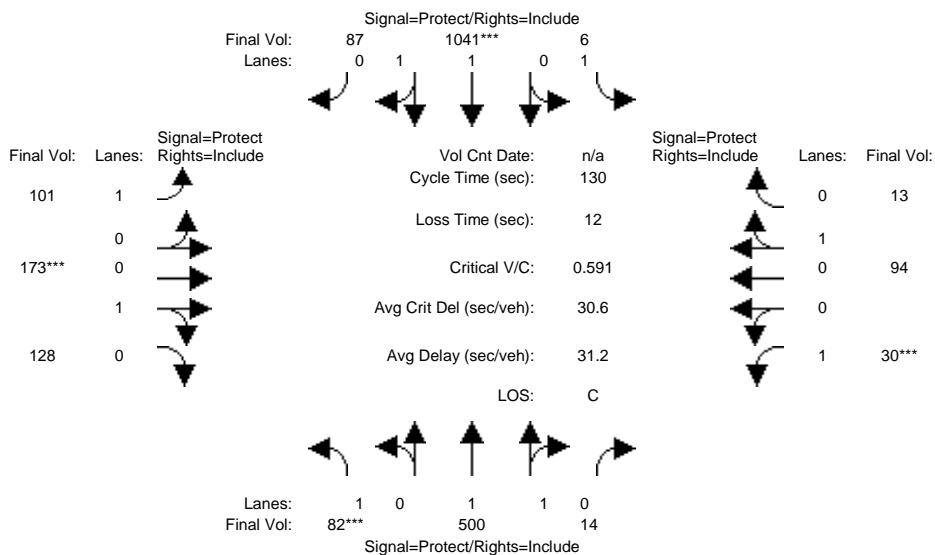
| Saturation Flow Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |      | Wolfe Rd EB |      |      | Wolfe Rd WB |      |      |
|-------------------------|------------------|------|------|------------------|------|------|-------------|------|------|-------------|------|------|
| Sat/Lane:               | 1900             | 1900 | 1900 | 1900             | 1900 | 1900 | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 |
| Adjustment:             | 0.92             | 1.00 | 0.92 | 0.92             | 1.00 | 0.83 | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 |
| Lanes:                  | 0.00             | 2.00 | 0.00 | 0.00             | 2.00 | 2.00 | 1.97        | 0.00 | 0.03 | 0.00        | 0.00 | 0.00 |
| Final Sat.:             | 0                | 3800 | 0    | 0                | 3800 | 3150 | 3442        | 0    | 58   | 0           | 0    | 0    |

| Capacity Analysis Module: | Fair Oaks Ave NB |      |      | Fair Oaks Ave SB |      |       | Wolfe Rd EB |      |      | Wolfe Rd WB |      |      |
|---------------------------|------------------|------|------|------------------|------|-------|-------------|------|------|-------------|------|------|
| Vol/Sat:                  | 0.00             | 0.15 | 0.00 | 0.00             | 0.33 | 0.41  | 0.22        | 0.00 | 0.22 | 0.00        | 0.00 | 0.00 |
| Crit Moves:               |                  |      |      |                  | **** |       |             |      | **** |             |      |      |
| Green Time:               | 0.0              | 80.2 | 0.0  | 0.0              | 80.2 | 134.0 | 53.8        | 0.0  | 53.8 | 0.0         | 0.0  | 0.0  |
| Volume/Cap:               | 0.00             | 0.26 | 0.00 | 0.00             | 0.58 | 0.42  | 0.57        | 0.00 | 0.58 | 0.00        | 0.00 | 0.00 |
| Uniform Del:              | 0.0              | 15.0 | 0.0  | 0.0              | 19.2 | 0.2   | 34.0        | 0.0  | 34.1 | 0.0         | 0.0  | 0.0  |
| IncrcmntDel:              | 0.0              | 0.1  | 0.0  | 0.0              | 0.4  | 0.1   | 0.6         | 0.0  | 0.7  | 0.0         | 0.0  | 0.0  |
| InitQueueDel:             | 0.0              | 0.0  | 0.0  | 0.0              | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| Delay Adj:                | 0.00             | 1.00 | 0.00 | 0.00             | 1.00 | 1.00  | 1.00        | 0.00 | 1.00 | 0.00        | 0.00 | 0.00 |
| Delay/Veh:                | 0.0              | 15.1 | 0.0  | 0.0              | 19.6 | 0.3   | 34.6        | 0.0  | 34.8 | 0.0         | 0.0  | 0.0  |
| User DelAdj:              | 1.00             | 1.00 | 1.00 | 1.00             | 1.00 | 1.00  | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 |
| AdjDel/Veh:               | 0.0              | 15.1 | 0.0  | 0.0              | 19.6 | 0.3   | 34.6        | 0.0  | 34.8 | 0.0         | 0.0  | 0.0  |
| LOS by Move:              | A                | B    | A    | A                | B-   | A     | C-          | A    | C-   | A           | A    | A    |
| HCM2kAvgQ:                | 0                | 6    | 0    | 0                | 16   | 3     | 13          | 0    | 14   | 0           | 0    | 0    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 82   | 500  | 14   | 6    | 1041 | 87   | 101  | 173  | 128  | 30   | 94   | 13   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 82   | 500  | 14   | 6    | 1041 | 87   | 101  | 173  | 128  | 30   | 94   | 13   |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 82   | 500  | 14   | 6    | 1041 | 87   | 101  | 173  | 128  | 30   | 94   | 13   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 82   | 500  | 14   | 6    | 1041 | 87   | 101  | 173  | 128  | 30   | 94   | 13   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 82   | 500  | 14   | 6    | 1041 | 87   | 101  | 173  | 128  | 30   | 94   | 13   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume:   | 82   | 500  | 14   | 6    | 1041 | 87   | 101  | 173  | 128  | 30   | 94   | 13   |

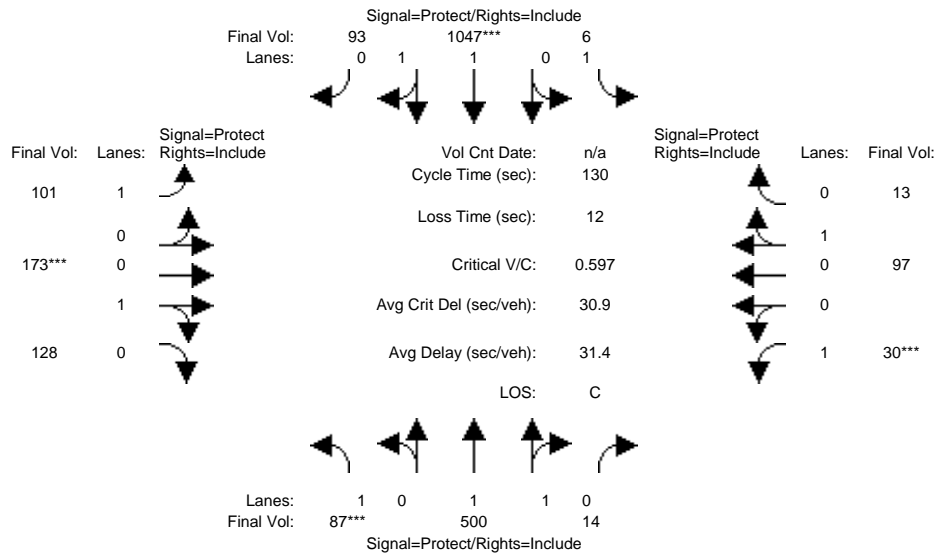
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes:                  | 1.00 | 1.94 | 0.06 | 1.00 | 1.84 | 0.16 | 1.00 | 0.57 | 0.43 | 1.00 | 0.88 | 0.12 |
| Final Sat.:             | 1750 | 3599 | 101  | 1750 | 3414 | 285  | 1750 | 1035 | 765  | 1750 | 1581 | 219  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.05 | 0.14 | 0.14 | 0.00 | 0.30 | 0.30 | 0.06 | 0.17 | 0.17 | 0.02 | 0.06 | 0.06 |
| Crit Moves:               | ***  |      |      |      | **** |      |      | **** |      |      | **** |      |
| Green Time:               | 10.0 | 54.2 | 54.2 | 21.0 | 65.2 | 65.2 | 18.3 | 35.8 | 35.8 | 7.0  | 24.4 | 24.4 |
| Volume/Cap:               | 0.61 | 0.33 | 0.33 | 0.02 | 0.61 | 0.61 | 0.41 | 0.61 | 0.61 | 0.32 | 0.32 | 0.32 |
| Uniform Del:              | 58.1 | 25.7 | 25.7 | 45.8 | 23.2 | 23.2 | 50.9 | 41.0 | 41.0 | 59.2 | 45.6 | 45.6 |
| IncrcmntDel:              | 7.8  | 0.1  | 0.1  | 0.0  | 0.6  | 0.6  | 1.1  | 2.2  | 2.2  | 2.0  | 0.5  | 0.5  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 65.9 | 25.8 | 25.8 | 45.9 | 23.8 | 23.8 | 52.0 | 43.2 | 43.2 | 61.2 | 46.1 | 46.1 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 65.9 | 25.8 | 25.8 | 45.9 | 23.8 | 23.8 | 52.0 | 43.2 | 43.2 | 61.2 | 46.1 | 46.1 |
| LOS by Move:              | E    | C    | C    | D    | C    | C    | D-   | D    | D    | E    | D    | D    |
| HCM2kAvgQ:                | 4    | 7    | 7    | 0    | 16   | 16   | 4    | 11   | 11   | 2    | 4    | 4    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P PM

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 82   | 500  | 14   | 6    | 1041 | 87   | 101  | 173  | 128  | 30   | 94   | 13   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 82   | 500  | 14   | 6    | 1041 | 87   | 101  | 173  | 128  | 30   | 94   | 13   |
| Added Vol:     | 5    | 0    | 0    | 0    | 6    | 6    | 0    | 0    | 0    | 0    | 3    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 87   | 500  | 14   | 6    | 1047 | 93   | 101  | 173  | 128  | 30   | 97   | 13   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 87   | 500  | 14   | 6    | 1047 | 93   | 101  | 173  | 128  | 30   | 97   | 13   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 87   | 500  | 14   | 6    | 1047 | 93   | 101  | 173  | 128  | 30   | 97   | 13   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 87   | 500  | 14   | 6    | 1047 | 93   | 101  | 173  | 128  | 30   | 97   | 13   |

| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes:                  | 1.00 | 1.94 | 0.06 | 1.00 | 1.83 | 0.17 | 1.00 | 0.57 | 0.43 | 1.00 | 0.88 | 0.12 |
| Final Sat.:             | 1750 | 3599 | 101  | 1750 | 3398 | 302  | 1750 | 1035 | 765  | 1750 | 1587 | 213  |

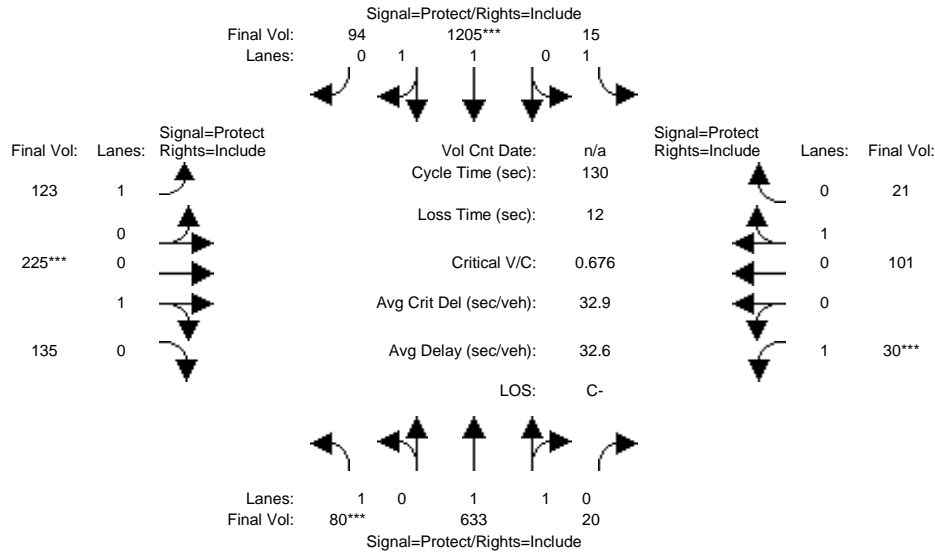
| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.05 | 0.14 | 0.14 | 0.00 | 0.31 | 0.31 | 0.06 | 0.17 | 0.17 | 0.02 | 0.06 | 0.06 |
| Crit Moves:               | ***  |      |      |      | **** |      |      | **** |      |      | **** |      |
| Green Time:               | 10.5 | 54.5 | 54.5 | 21.1 | 65.1 | 65.1 | 18.2 | 35.4 | 35.4 | 7.0  | 24.2 | 24.2 |
| Volume/Cap:               | 0.61 | 0.33 | 0.33 | 0.02 | 0.61 | 0.61 | 0.41 | 0.61 | 0.61 | 0.32 | 0.33 | 0.33 |
| Uniform Del:              | 57.8 | 25.4 | 25.4 | 45.7 | 23.4 | 23.4 | 51.1 | 41.4 | 41.4 | 59.2 | 45.9 | 45.9 |
| IncrcmntDel:              | 7.9  | 0.1  | 0.1  | 0.0  | 0.6  | 0.6  | 1.1  | 2.3  | 2.3  | 2.0  | 0.6  | 0.6  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 65.6 | 25.6 | 25.6 | 45.8 | 24.0 | 24.0 | 52.2 | 43.7 | 43.7 | 61.2 | 46.4 | 46.4 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 65.6 | 25.6 | 25.6 | 45.8 | 24.0 | 24.0 | 52.2 | 43.7 | 43.7 | 61.2 | 46.4 | 46.4 |
| LOS by Move:              | E    | C    | C    | D    | C    | C    | D-   | D    | D    | E    | D    | D    |
| HCM2kAvgQ:                | 5    | 7    | 7    | 0    | 16   | 16   | 4    | 12   | 12   | 2    | 4    | 4    |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Movement:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 80          | 633  | 20   | 15          | 1205 | 94   | 123        | 225  | 135  | 30         | 101  | 21   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 80          | 633  | 20   | 15          | 1205 | 94   | 123        | 225  | 135  | 30         | 101  | 21   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 80          | 633  | 20   | 15          | 1205 | 94   | 123        | 225  | 135  | 30         | 101  | 21   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 80          | 633  | 20   | 15          | 1205 | 94   | 123        | 225  | 135  | 30         | 101  | 21   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 80          | 633  | 20   | 15          | 1205 | 94   | 123        | 225  | 135  | 30         | 101  | 21   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 80          | 633  | 20   | 15          | 1205 | 94   | 123        | 225  | 135  | 30         | 101  | 21   |

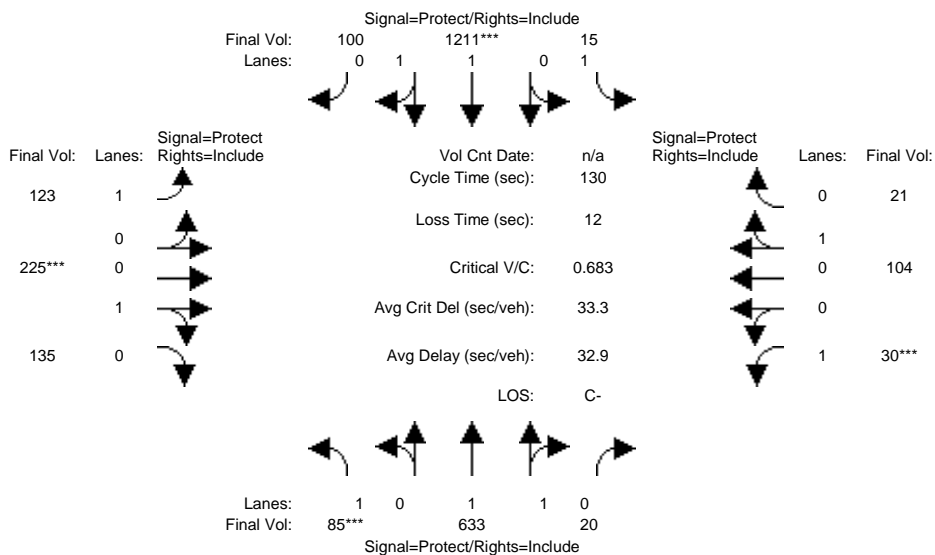
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 0.97 | 0.95 | 0.92        | 0.98 | 0.95 | 0.92       | 0.95 | 0.95 | 0.92       | 0.95 | 0.95 |
| Lanes:                  | 1.00        | 1.94 | 0.06 | 1.00        | 1.85 | 0.15 | 1.00       | 0.62 | 0.38 | 1.00       | 0.83 | 0.17 |
| Final Sat.:             | 1750        | 3587 | 113  | 1750        | 3432 | 268  | 1750       | 1125 | 675  | 1750       | 1490 | 310  |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.05        | 0.18 | 0.18 | 0.01        | 0.35 | 0.35 | 0.07       | 0.20 | 0.20 | 0.02       | 0.07 | 0.07 |
| Crit Moves:               | ***         |      |      | ****        |      |      | ****       |      |      | ****       |      |      |
| Green Time:               | 8.5         | 56.5 | 56.5 | 17.3        | 65.3 | 65.3 | 21.1       | 37.2 | 37.2 | 7.0        | 23.1 | 23.1 |
| Volume/Cap:               | 0.70        | 0.41 | 0.41 | 0.06        | 0.70 | 0.70 | 0.43       | 0.70 | 0.70 | 0.32       | 0.38 | 0.38 |
| Uniform Del:              | 59.5        | 25.2 | 25.2 | 49.3        | 24.8 | 24.8 | 49.1       | 41.4 | 41.4 | 59.2       | 47.2 | 47.2 |
| IncrcmntDel:              | 17.4        | 0.2  | 0.2  | 0.1         | 1.2  | 1.2  | 1.1        | 4.2  | 4.2  | 2.0        | 0.8  | 0.8  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Delay/Veh:                | 76.9        | 25.4 | 25.4 | 49.4        | 26.0 | 26.0 | 50.1       | 45.6 | 45.6 | 61.2       | 47.9 | 47.9 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 76.9        | 25.4 | 25.4 | 49.4        | 26.0 | 26.0 | 50.1       | 45.6 | 45.6 | 61.2       | 47.9 | 47.9 |
| LOS by Move:              | E-          | C    | C    | D           | C    | C    | D          | D    | D    | E          | D    | D    |
| HCM2kAvgQ:                | 5           | 9    | 9    | 1           | 20   | 20   | 5          | 14   | 14   | 2          | 5    | 5    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P PM

Intersection #21: Fair Oaks Ave & Maude Ave



| Street Name: | Fair Oaks Ave |     |     |             |     |     | Maude Ave  |     |     |            |     |     |
|--------------|---------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound   |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L             | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7             | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0           | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 80   | 633  | 20   | 15   | 1205 | 94   | 123  | 225  | 135  | 30   | 101  | 21   |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 80   | 633  | 20   | 15   | 1205 | 94   | 123  | 225  | 135  | 30   | 101  | 21   |
| Added Vol:     | 5    | 0    | 0    | 0    | 6    | 6    | 0    | 0    | 0    | 0    | 3    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 85   | 633  | 20   | 15   | 1211 | 100  | 123  | 225  | 135  | 30   | 104  | 21   |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 85   | 633  | 20   | 15   | 1211 | 100  | 123  | 225  | 135  | 30   | 104  | 21   |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 85   | 633  | 20   | 15   | 1211 | 100  | 123  | 225  | 135  | 30   | 104  | 21   |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 85   | 633  | 20   | 15   | 1211 | 100  | 123  | 225  | 135  | 30   | 104  | 21   |

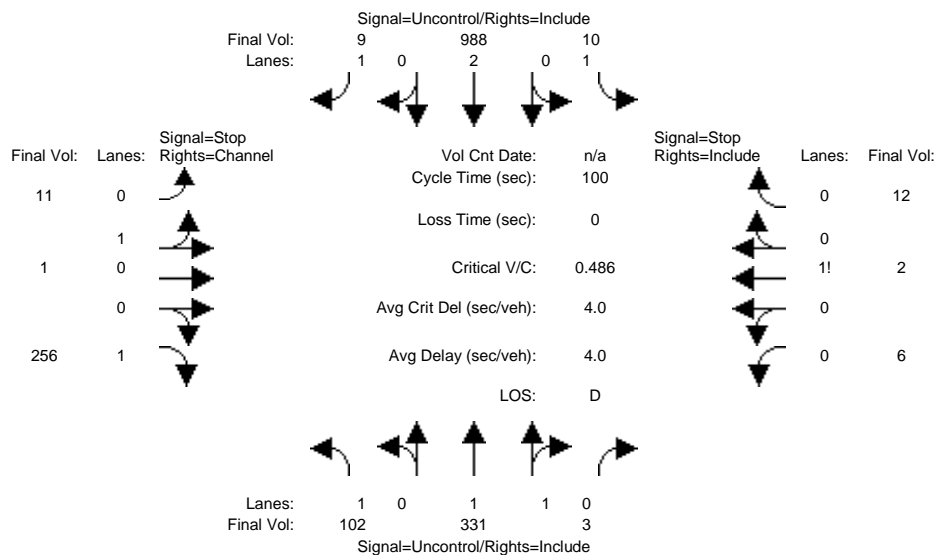
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.92 | 0.97 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.92 | 0.95 | 0.95 |
| Lanes:                  | 1.00 | 1.94 | 0.06 | 1.00 | 1.84 | 0.16 | 1.00 | 0.62 | 0.38 | 1.00 | 0.83 | 0.17 |
| Final Sat.:             | 1750 | 3587 | 113  | 1750 | 3418 | 282  | 1750 | 1125 | 675  | 1750 | 1498 | 302  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.05 | 0.18 | 0.18 | 0.01 | 0.35 | 0.35 | 0.07 | 0.20 | 0.20 | 0.02 | 0.07 | 0.07 |
| Crit Moves:               | ***  |      |      |      | ***  |      | ***  |      |      | ***  |      |      |
| Green Time:               | 8.9  | 56.8 | 56.8 | 17.3 | 65.2 | 65.2 | 20.9 | 36.8 | 36.8 | 7.0  | 22.9 | 22.9 |
| Volume/Cap:               | 0.71 | 0.40 | 0.40 | 0.06 | 0.71 | 0.71 | 0.44 | 0.71 | 0.71 | 0.32 | 0.39 | 0.39 |
| Uniform Del:              | 59.2 | 25.0 | 25.0 | 49.2 | 25.0 | 25.0 | 49.2 | 41.7 | 41.7 | 59.2 | 47.4 | 47.4 |
| IncrcmntDel:              | 17.4 | 0.2  | 0.2  | 0.1  | 1.3  | 1.3  | 1.1  | 4.5  | 4.5  | 2.0  | 0.8  | 0.8  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 76.7 | 25.2 | 25.2 | 49.4 | 26.3 | 26.3 | 50.3 | 46.2 | 46.2 | 61.2 | 48.2 | 48.2 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 76.7 | 25.2 | 25.2 | 49.4 | 26.3 | 26.3 | 50.3 | 46.2 | 46.2 | 61.2 | 48.2 | 48.2 |
| LOS by Move:              | E-   | C    | C    | D    | C    | C    | D    | D    | D    | E    | D    | D    |
| HCM2kAvgQ:                | 5    | 9    | 9    | 1    | 20   | 20   | 5    | 14   | 14   | 2    | 5    | 5    |

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

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing different approaches and movements, and rows for Volume Module metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table for Critical Gap Module with 12 columns and 2 rows: Critical Gp, FollowUpTim.

Table for Capacity Module with 12 columns and 4 rows: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table for Level Of Service Module with 12 columns and 10 rows: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #22 Wolfe Rd & Maude Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 102 331 3    | 10 988 9     | 11 1 256   | 6 2 12     |
| ApproachDel: | xxxxxx       | xxxxxx       | 19.6       | 26.6       |

Approach[eastbound][lanes=2][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=1.5]  
 FAIL - Vehicle-hours less than 5 for two or more lane approach.  
 Signal Warrant Rule #2: [approach volume=268]  
 SUCCEED - Approach volume >= 150 for two or more 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.

Approach[westbound][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=1731]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*

Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 102 331 3    | 10 988 9     | 11 1 256   | 6 2 12     |

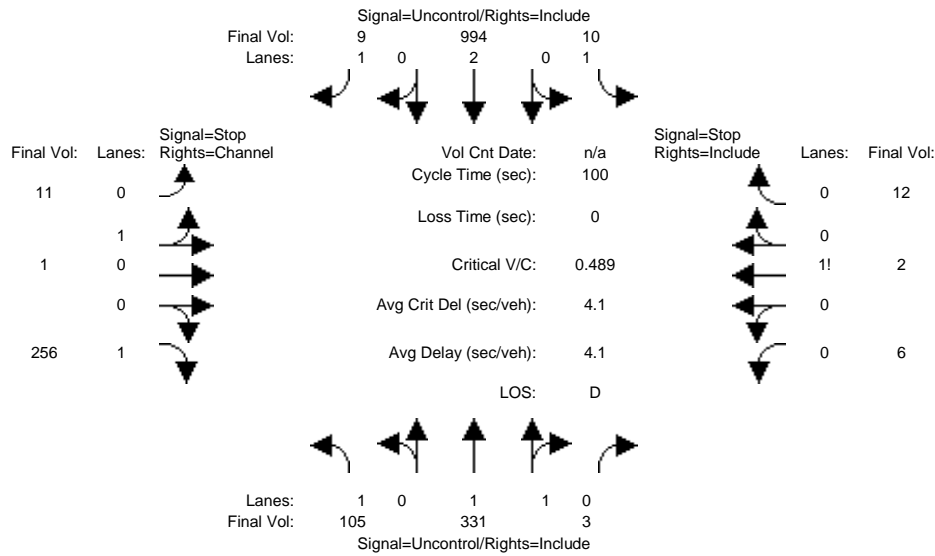
Major Street Volume: 1443  
 Minor Approach Volume: 268  
 Minor Approach Volume Threshold: 216

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P PM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 12 rows representing critical gap and follow-up time metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #22 Wolfe Rd & Maude Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 105 331 3    | 10 994 9     | 11 1 256   | 6 2 12     |
| ApproachDel: | xxxxxx       | xxxxxx       | 19.8       | 27.1       |

Approach[eastbound][lanes=2][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=1.5]  
 FAIL - Vehicle-hours less than 5 for two or more lane approach.  
 Signal Warrant Rule #2: [approach volume=268]  
 SUCCEED - Approach volume >= 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=1740]  
 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=0.2]  
 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=1740]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*

Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 105 331 3    | 10 994 9     | 11 1 256   | 6 2 12     |

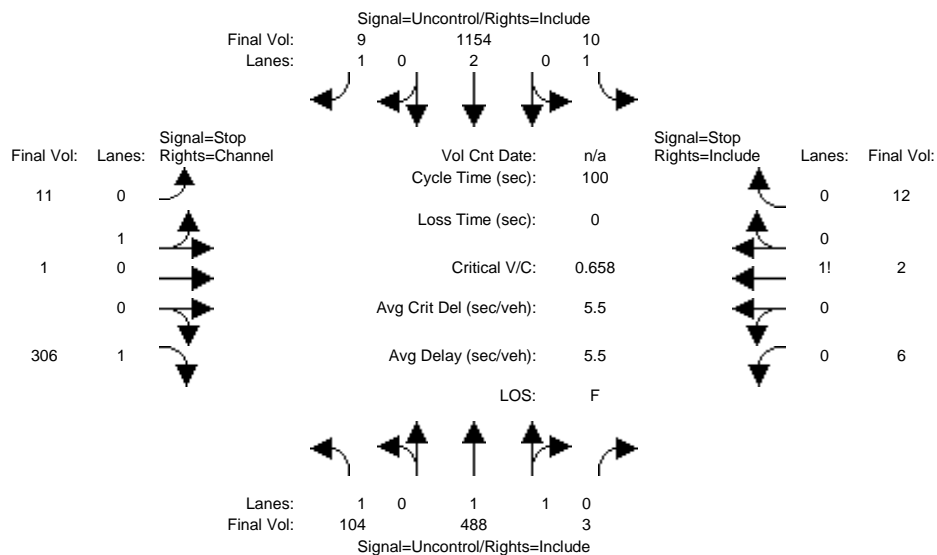
Major Street Volume: 1452  
 Minor Approach Volume: 268  
 Minor Approach Volume Threshold: 214

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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd PM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #22 Wolfe Rd & Maude Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 104 488 3    | 10 1154 9    | 11 1 306   | 6 2 12     |
| ApproachDel: | xxxxxx       | xxxxxx       | 28.6       | 55.1       |

Approach[eastbound][lanes=2][control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=2.5]  
 FAIL - Vehicle-hours less than 5 for two or more lane approach.  
 Signal Warrant Rule #2: [approach volume=318]  
 SUCCEED - Approach volume >= 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=2106]  
 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=0.3]  
 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=2106]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*

Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 104 488 3    | 10 1154 9    | 11 1 306   | 6 2 12     |

Major Street Volume: 1768  
 Minor Approach Volume: 318  
 Minor Approach Volume Threshold: 129 [less than minimum of 150]

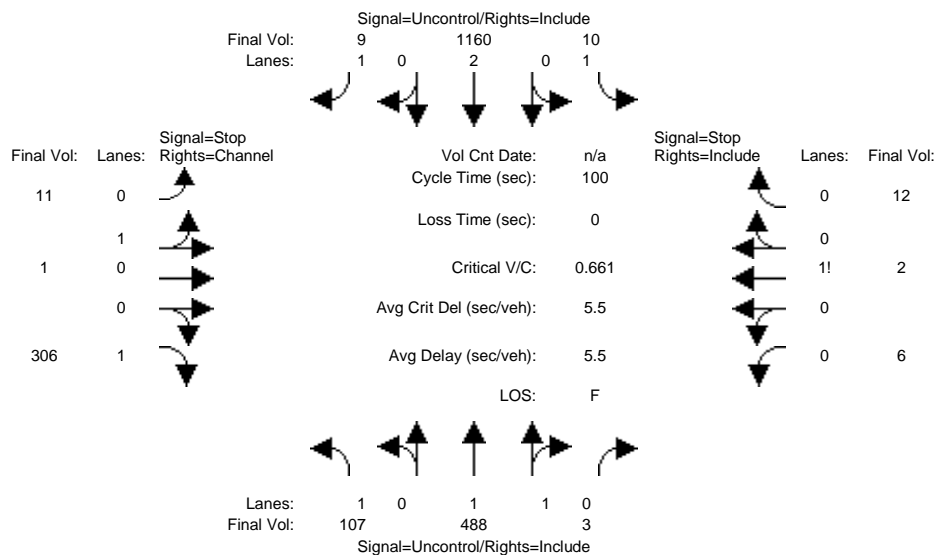
SIGNAL WARRANT DISCLAIMER  
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 the scope of this software, may yield different results.



Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing volume modules for each approach and movement. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing critical gap modules. Rows include Critical Gap and FollowUpTime.

Table with 12 columns representing capacity modules. Rows include Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #22 Wolfe Rd & Maude Ave
\*\*\*\*\*
Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 107 488 3    | 10 1160 9    | 11 1 306   | 6 2 12     |
| ApproachDel: | xxxxxx       | xxxxxx       | 28.9       | 56.8       |

Approach[eastbound][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=318]  
 SUCCEED - Approach volume >= 150 for two or more lane approach.  
 Signal Warrant Rule #3: [approach count=4][total volume=2115]  
 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=0.3]  
 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=2115]  
 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).

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 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #22 Wolfe Rd & Maude Ave  
 \*\*\*\*\*  
 Future 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  | L - T - R  |
| Control:     | Uncontrolled | Uncontrolled | Stop Sign  | Stop Sign  |
| Lanes:       | 1 0 1 1 0    | 1 0 2 0 1    | 0 1 0 0 1  | 0 0 1! 0 0 |
| Initial Vol: | 107 488 3    | 10 1160 9    | 11 1 306   | 6 2 12     |

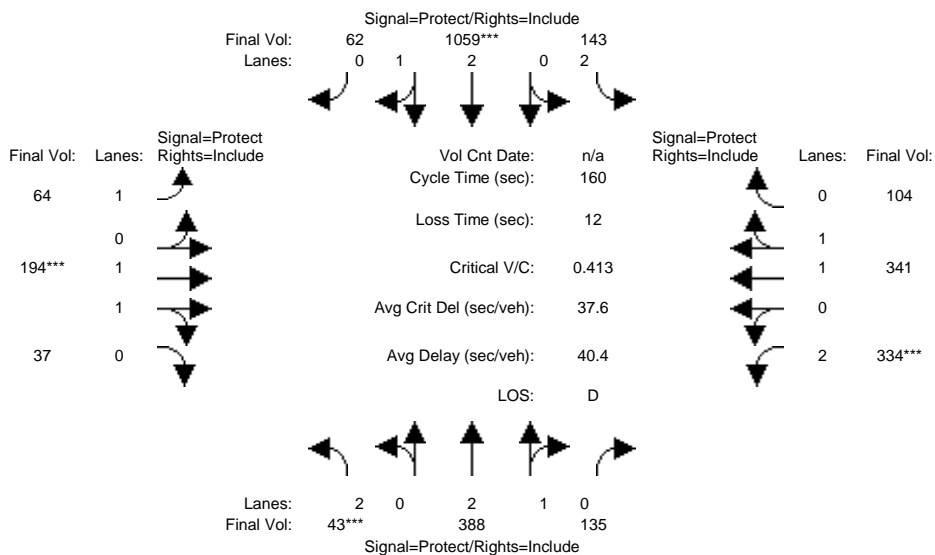
Major Street Volume: 1777  
 Minor Approach Volume: 318  
 Minor Approach Volume Threshold: 127 [less than minimum of 150]

SIGNAL WARRANT DISCLAIMER  
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting 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).

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 the scope of this software, may yield different results.

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 43   | 388  | 135  | 143  | 1059 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 43   | 388  | 135  | 143  | 1059 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 43   | 388  | 135  | 143  | 1059 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 43   | 388  | 135  | 143  | 1059 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 43   | 388  | 135  | 143  | 1059 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 43   | 388  | 135  | 143  | 1059 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |

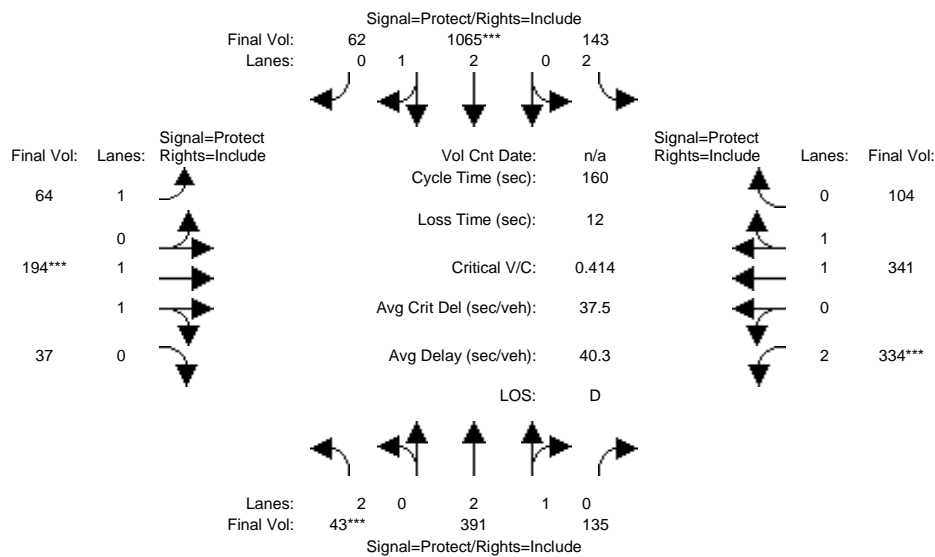
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes:                  | 2.00 | 2.20 | 0.80 | 2.00 | 2.83 | 0.17 | 1.00 | 1.67 | 0.33 | 2.00 | 1.52 | 0.48 |
| Final Sat.:             | 3150 | 4153 | 1445 | 3150 | 5290 | 310  | 1750 | 3107 | 593  | 3150 | 2835 | 865  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.09 | 0.09 | 0.05 | 0.20 | 0.20 | 0.04 | 0.06 | 0.06 | 0.11 | 0.12 | 0.12 |
| Crit Moves:               | ***  |      |      |      | ***  |      |      | ***  |      | ***  |      |      |
| Green Time:               | 7.0  | 56.2 | 56.2 | 27.3 | 76.6 | 76.6 | 17.2 | 23.9 | 23.9 | 40.6 | 47.3 | 47.3 |
| Volume/Cap:               | 0.31 | 0.27 | 0.27 | 0.27 | 0.42 | 0.42 | 0.34 | 0.42 | 0.42 | 0.42 | 0.41 | 0.41 |
| Uniform Del:              | 74.2 | 37.1 | 37.1 | 57.6 | 27.2 | 27.2 | 66.2 | 61.8 | 61.8 | 49.9 | 45.2 | 45.2 |
| IncrcmntDel:              | 1.3  | 0.1  | 0.1  | 0.3  | 0.1  | 0.1  | 1.1  | 0.5  | 0.5  | 0.4  | 0.2  | 0.2  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 75.5 | 37.2 | 37.2 | 57.9 | 27.3 | 27.3 | 67.2 | 62.3 | 62.3 | 50.2 | 45.4 | 45.4 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 75.5 | 37.2 | 37.2 | 57.9 | 27.3 | 27.3 | 67.2 | 62.3 | 62.3 | 50.2 | 45.4 | 45.4 |
| LOS by Move:              | E-   | D+   | D+   | E+   | C    | C    | E    | E    | E    | D    | D    | D    |
| HCM2kAvgQ:                | 1    | 6    | 6    | 3    | 12   | 12   | 3    | 5    | 5    | 8    | 9    | 9    |

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing+P PM

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 43   | 388  | 135  | 143  | 1059 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 43   | 388  | 135  | 143  | 1059 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| Added Vol:     | 0    | 3    | 0    | 0    | 6    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 43   | 391  | 135  | 143  | 1065 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 43   | 391  | 135  | 143  | 1065 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 43   | 391  | 135  | 143  | 1065 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 43   | 391  | 135  | 143  | 1065 | 62   | 64   | 194  | 37   | 334  | 341  | 104  |

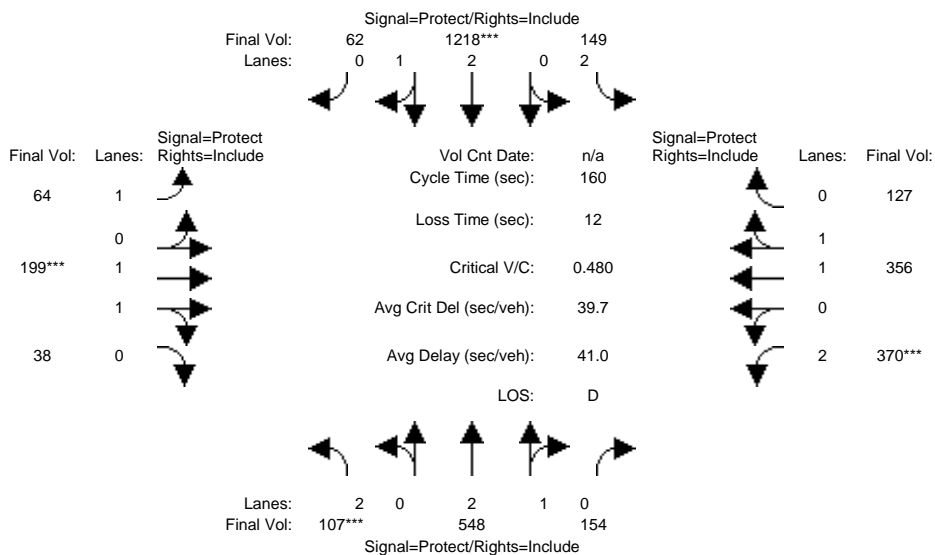
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes:                  | 2.00 | 2.20 | 0.80 | 2.00 | 2.83 | 0.17 | 1.00 | 1.67 | 0.33 | 2.00 | 1.52 | 0.48 |
| Final Sat.:             | 3150 | 4161 | 1437 | 3150 | 5292 | 308  | 1750 | 3107 | 593  | 3150 | 2835 | 865  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.01 | 0.09 | 0.09 | 0.05 | 0.20 | 0.20 | 0.04 | 0.06 | 0.06 | 0.11 | 0.12 | 0.12 |
| Crit Moves:               | ***  |      |      |      | ***  |      |      | ***  |      |      | ***  |      |
| Green Time:               | 7.0  | 56.5 | 56.5 | 27.3 | 76.8 | 76.8 | 17.1 | 23.8 | 23.8 | 40.4 | 47.1 | 47.1 |
| Volume/Cap:               | 0.31 | 0.27 | 0.27 | 0.27 | 0.42 | 0.42 | 0.34 | 0.42 | 0.42 | 0.42 | 0.41 | 0.41 |
| Uniform Del:              | 74.2 | 37.0 | 37.0 | 57.7 | 27.1 | 27.1 | 66.2 | 61.8 | 61.8 | 50.0 | 45.3 | 45.3 |
| IncrcmntDel:              | 1.3  | 0.1  | 0.1  | 0.3  | 0.1  | 0.1  | 1.1  | 0.5  | 0.5  | 0.4  | 0.3  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 75.5 | 37.0 | 37.0 | 57.9 | 27.2 | 27.2 | 67.3 | 62.3 | 62.3 | 50.3 | 45.5 | 45.5 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 75.5 | 37.0 | 37.0 | 57.9 | 27.2 | 27.2 | 67.3 | 62.3 | 62.3 | 50.3 | 45.5 | 45.5 |
| LOS by Move:              | E-   | D+   | D+   | E+   | C    | C    | E    | E    | E    | D    | D    | D    |
| HCM2kAvgQ:                | 1    | 6    | 6    | 3    | 12   | 12   | 3    | 5    | 5    | 8    | 9    | 9    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:      | 107  | 548  | 154  | 149  | 1218 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 107  | 548  | 154  | 149  | 1218 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| Added Vol:     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 107  | 548  | 154  | 149  | 1218 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 107  | 548  | 154  | 149  | 1218 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 107  | 548  | 154  | 149  | 1218 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 107  | 548  | 154  | 149  | 1218 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |

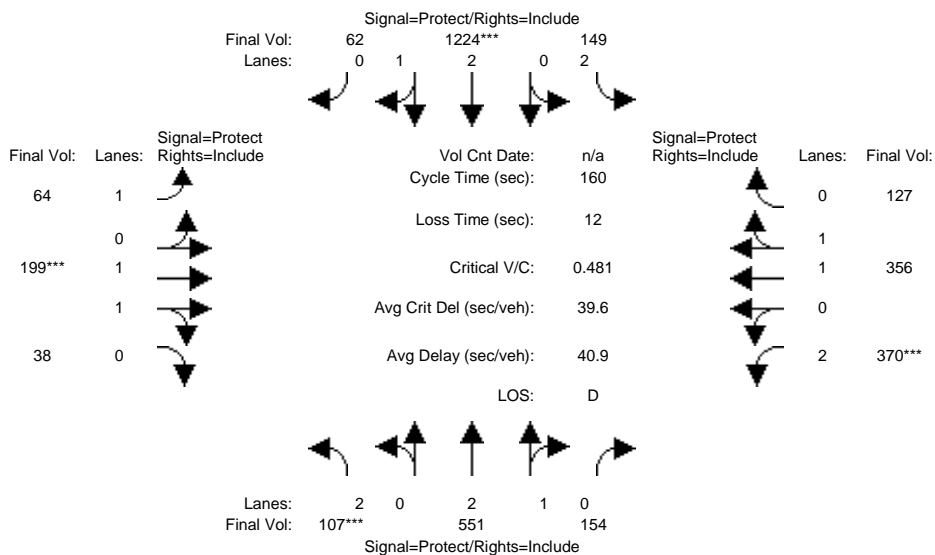
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes:                  | 2.00 | 2.32 | 0.68 | 2.00 | 2.85 | 0.15 | 1.00 | 1.67 | 0.33 | 2.00 | 1.46 | 0.54 |
| Final Sat.:             | 3150 | 4370 | 1228 | 3150 | 5328 | 271  | 1750 | 3106 | 593  | 3150 | 2726 | 973  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:                  | 0.03 | 0.13 | 0.13 | 0.05 | 0.23 | 0.23 | 0.04 | 0.06 | 0.06 | 0.12 | 0.13 | 0.13 |
| Crit Moves:               | ***  |      |      |      | **** |      |      | **** |      | **** |      |      |
| Green Time:               | 11.3 | 63.5 | 63.5 | 24.0 | 76.2 | 76.2 | 15.2 | 21.4 | 21.4 | 39.1 | 45.3 | 45.3 |
| Volume/Cap:               | 0.48 | 0.32 | 0.32 | 0.32 | 0.48 | 0.48 | 0.39 | 0.48 | 0.48 | 0.48 | 0.46 | 0.46 |
| Uniform Del:              | 71.5 | 33.2 | 33.2 | 60.7 | 28.5 | 28.5 | 68.0 | 64.2 | 64.2 | 51.7 | 47.3 | 47.3 |
| IncrcmntDel:              | 1.6  | 0.1  | 0.1  | 0.4  | 0.1  | 0.1  | 1.5  | 0.7  | 0.7  | 0.5  | 0.3  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 73.1 | 33.3 | 33.3 | 61.1 | 28.6 | 28.6 | 69.5 | 64.9 | 64.9 | 52.2 | 47.6 | 47.6 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 73.1 | 33.3 | 33.3 | 61.1 | 28.6 | 28.6 | 69.5 | 64.9 | 64.9 | 52.2 | 47.6 | 47.6 |
| LOS by Move:              | E    | C-   | C-   | E    | C    | C    | E    | E    | E    | D-   | D    | D    |
| HCM2kAvgQ:                | 3    | 8    | 8    | 4    | 14   | 14   | 4    | 6    | 6    | 9    | 10   | 10   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P PM

Intersection #23: Wolfe Rd & Arques Ave



| Street Name: | Wolfe Rd    |     |     |             |     |     | Arques Ave |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | North Bound |     |     | South Bound |     |     | East Bound |     |     | West Bound |     |     |
| Approach:    | L           | T   | R   | L           | T   | R   | L          | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 7          | 10  | 10  | 7          | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                | 107  | 548  | 154  | 149  | 1218 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| Base Vol:      | 107  | 548  | 154  | 149  | 1218 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| Growth Adj:    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse:   | 107  | 548  | 154  | 149  | 1218 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| Added Vol:     | 0    | 3    | 0    | 0    | 6    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| PasserByVol:   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut:   | 107  | 551  | 154  | 149  | 1224 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| User Adj:      | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume:    | 107  | 551  | 154  | 149  | 1224 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| Reduct Vol:    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol:   | 107  | 551  | 154  | 149  | 1224 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |
| PCE Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj:       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume:  | 107  | 551  | 154  | 149  | 1224 | 62   | 64   | 199  | 38   | 370  | 356  | 127  |

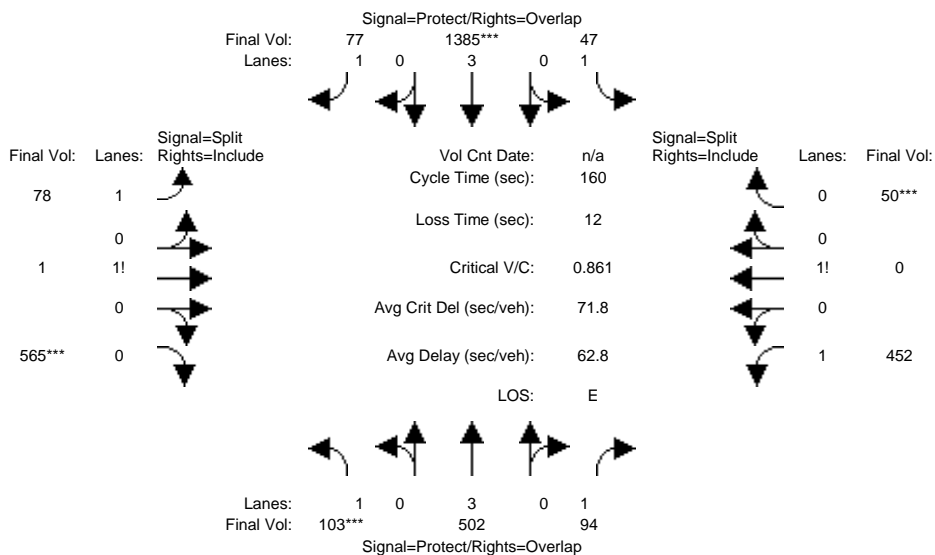
| Saturation Flow Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                         | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Sat/Lane:               | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment:             | 0.83 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes:                  | 2.00 | 2.32 | 0.68 | 2.00 | 2.85 | 0.15 | 1.00 | 1.67 | 0.33 | 2.00 | 1.46 | 0.54 |
| Final Sat.:             | 3150 | 4375 | 1223 | 3150 | 5330 | 270  | 1750 | 3106 | 593  | 3150 | 2726 | 973  |

| Capacity Analysis Module: |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                           | 0.03 | 0.13 | 0.13 | 0.05 | 0.23 | 0.23 | 0.04 | 0.06 | 0.06 | 0.12 | 0.13 | 0.13 |
| Vol/Sat:                  | 0.03 | 0.13 | 0.13 | 0.05 | 0.23 | 0.23 | 0.04 | 0.06 | 0.06 | 0.12 | 0.13 | 0.13 |
| Crit Moves:               | ***  |      |      |      | ***  |      |      | ***  |      |      | ***  |      |
| Green Time:               | 11.3 | 63.7 | 63.7 | 23.9 | 76.4 | 76.4 | 15.1 | 21.3 | 21.3 | 39.1 | 45.2 | 45.2 |
| Volume/Cap:               | 0.48 | 0.32 | 0.32 | 0.32 | 0.48 | 0.48 | 0.39 | 0.48 | 0.48 | 0.48 | 0.46 | 0.46 |
| Uniform Del:              | 71.5 | 33.1 | 33.1 | 60.7 | 28.4 | 28.4 | 68.1 | 64.2 | 64.2 | 51.8 | 47.4 | 47.4 |
| IncrcmntDel:              | 1.6  | 0.1  | 0.1  | 0.4  | 0.1  | 0.1  | 1.5  | 0.7  | 0.7  | 0.5  | 0.3  | 0.3  |
| InitQueueDel:             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Delay Adj:                | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh:                | 73.2 | 33.2 | 33.2 | 61.1 | 28.5 | 28.5 | 69.6 | 65.0 | 65.0 | 52.3 | 47.7 | 47.7 |
| User DelAdj:              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh:               | 73.2 | 33.2 | 33.2 | 61.1 | 28.5 | 28.5 | 69.6 | 65.0 | 65.0 | 52.3 | 47.7 | 47.7 |
| LOS by Move:              | E    | C-   | C-   | E    | C    | C    | E    | E    | E    | D-   | D    | D    |
| HCM2kAvgQ:                | 3    | 8    | 8    | 4    | 14   | 14   | 4    | 6    | 6    | 9    | 10   | 10   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 103         | 502  | 94   | 47          | 1385 | 77   | 78         | 1    | 565  | 452        | 0    | 50   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 103         | 502  | 94   | 47          | 1385 | 77   | 78         | 1    | 565  | 452        | 0    | 50   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 103         | 502  | 94   | 47          | 1385 | 77   | 78         | 1    | 565  | 452        | 0    | 50   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 103         | 502  | 94   | 47          | 1385 | 77   | 78         | 1    | 565  | 452        | 0    | 50   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 103         | 502  | 94   | 47          | 1385 | 77   | 78         | 1    | 565  | 452        | 0    | 50   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 103         | 502  | 94   | 47          | 1385 | 77   | 78         | 1    | 565  | 452        | 0    | 50   |

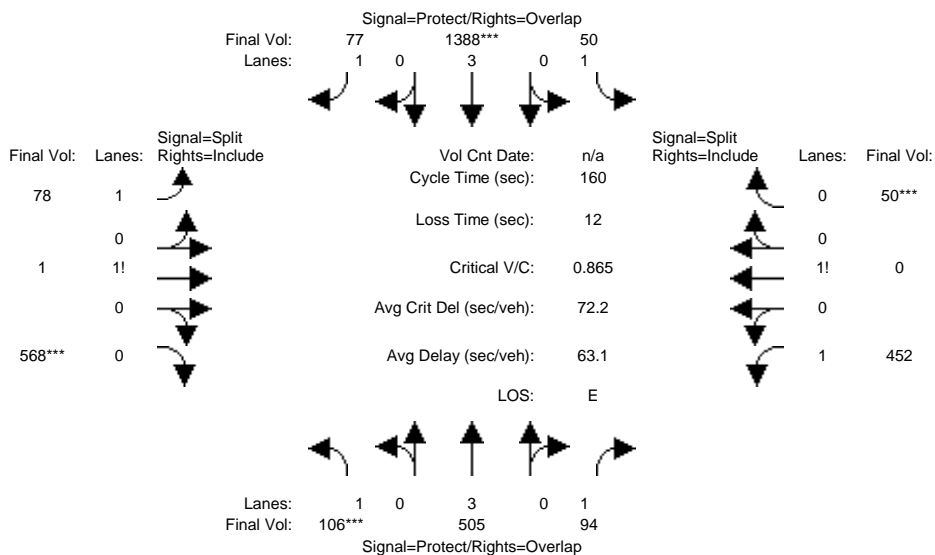
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 0.95 | 0.95 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 1.06       | 0.01 | 0.93 | 1.82       | 0.00 | 0.18 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 1866       | 3    | 1678 | 3183       | 0    | 317  |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.06        | 0.09 | 0.05 | 0.03        | 0.24 | 0.04 | 0.04       | 0.34 | 0.34 | 0.14       | 0.00 | 0.16 |
| Crit Moves:               | ***         |      |      | ****        |      |      |            |      | **** |            |      | **** |
| Green Time:               | 21.0        | 42.0 | 69.2 | 21.0        | 41.8 | 99.8 | 58.0       | 58.0 | 58.0 | 27.2       | 0.0  | 27.2 |
| Volume/Cap:               | 0.45        | 0.34 | 0.12 | 0.20        | 0.93 | 0.07 | 0.12       | 0.93 | 0.93 | 0.84       | 0.00 | 0.93 |
| Uniform Del:              | 64.1        | 47.7 | 27.3 | 62.0        | 57.6 | 11.8 | 33.9       | 49.0 | 49.0 | 64.3       | 0.0  | 65.5 |
| IncrcmntDel:              | 1.4         | 0.1  | 0.1  | 0.4         | 10.5 | 0.0  | 0.0        | 18.9 | 18.9 | 10.0       | 0.0  | 22.6 |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 0.00 | 1.00 |
| Delay/Veh:                | 65.5        | 47.9 | 27.3 | 62.5        | 68.2 | 11.9 | 33.9       | 68.0 | 68.0 | 74.3       | 0.0  | 88.1 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 65.5        | 47.9 | 27.3 | 62.5        | 68.2 | 11.9 | 33.9       | 68.0 | 68.0 | 74.3       | 0.0  | 88.1 |
| LOS by Move:              | E           | D    | C    | E           | E    | B+   | C-         | E    | E    | E          | A    | F    |
| HCM2kAvgQ:                | 5           | 7    | 3    | 2           | 24   | 2    | 2          | 34   | 34   | 15         | 0    | 18   |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+P PM

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 103         | 502  | 94   | 47          | 1385 | 77   | 78         | 1    | 565  | 452        | 0    | 50   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 103         | 502  | 94   | 47          | 1385 | 77   | 78         | 1    | 565  | 452        | 0    | 50   |
| Added Vol:     | 3           | 3    | 0    | 3           | 3    | 0    | 0          | 0    | 3    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 106         | 505  | 94   | 50          | 1388 | 77   | 78         | 1    | 568  | 452        | 0    | 50   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 106         | 505  | 94   | 50          | 1388 | 77   | 78         | 1    | 568  | 452        | 0    | 50   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 106         | 505  | 94   | 50          | 1388 | 77   | 78         | 1    | 568  | 452        | 0    | 50   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 106         | 505  | 94   | 50          | 1388 | 77   | 78         | 1    | 568  | 452        | 0    | 50   |

| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 0.95 | 0.95 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 1.06       | 0.01 | 0.93 | 1.82       | 0.00 | 0.18 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 1865       | 3    | 1679 | 3183       | 0    | 317  |

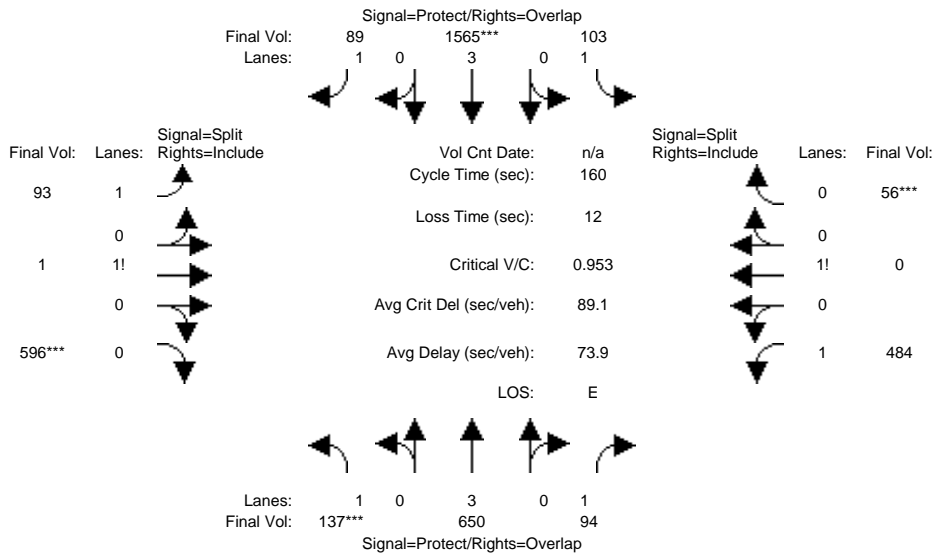
| Capacity Analysis Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|---------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Vol/Sat:                  | 0.06        | 0.09 | 0.05 | 0.03        | 0.24 | 0.04 | 0.04       | 0.34 | 0.34 | 0.14       | 0.00 | 0.16 |
| Crit Moves:               | ***         |      |      | ****        |      |      |            |      | **** |            |      | **** |
| Green Time:               | 21.0        | 42.1 | 69.1 | 21.0        | 41.8 | 99.9 | 58.1       | 58.1 | 58.1 | 27.1       | 0.0  | 27.1 |
| Volume/Cap:               | 0.46        | 0.34 | 0.12 | 0.22        | 0.93 | 0.07 | 0.12       | 0.93 | 0.93 | 0.84       | 0.00 | 0.93 |
| Uniform Del:              | 64.3        | 47.7 | 27.3 | 62.1        | 57.7 | 11.8 | 33.9       | 49.0 | 49.0 | 64.4       | 0.0  | 65.6 |
| IncrcmntDel:              | 1.5         | 0.1  | 0.1  | 0.5         | 10.9 | 0.0  | 0.0        | 19.4 | 19.4 | 10.2       | 0.0  | 23.2 |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0  |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 0.00 | 1.00 |
| Delay/Veh:                | 65.7        | 47.8 | 27.3 | 62.6        | 68.6 | 11.8 | 33.9       | 68.4 | 68.4 | 74.6       | 0.0  | 88.7 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| AdjDel/Veh:               | 65.7        | 47.8 | 27.3 | 62.6        | 68.6 | 11.8 | 33.9       | 68.4 | 68.4 | 74.6       | 0.0  | 88.7 |
| LOS by Move:              | E           | D    | C    | E           | E    | B+   | C-         | E    | E    | E          | A    | F    |
| HCM2kAvgQ:                | 6           | 7    | 3    | 2           | 24   | 2    | 2          | 34   | 34   | 15         | 0    | 18   |

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



Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd PM

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 137         | 650  | 94   | 103         | 1565 | 89   | 93         | 1    | 596  | 484        | 0    | 56   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 137         | 650  | 94   | 103         | 1565 | 89   | 93         | 1    | 596  | 484        | 0    | 56   |
| Added Vol:     | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 137         | 650  | 94   | 103         | 1565 | 89   | 93         | 1    | 596  | 484        | 0    | 56   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 137         | 650  | 94   | 103         | 1565 | 89   | 93         | 1    | 596  | 484        | 0    | 56   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 137         | 650  | 94   | 103         | 1565 | 89   | 93         | 1    | 596  | 484        | 0    | 56   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 137         | 650  | 94   | 103         | 1565 | 89   | 93         | 1    | 596  | 484        | 0    | 56   |

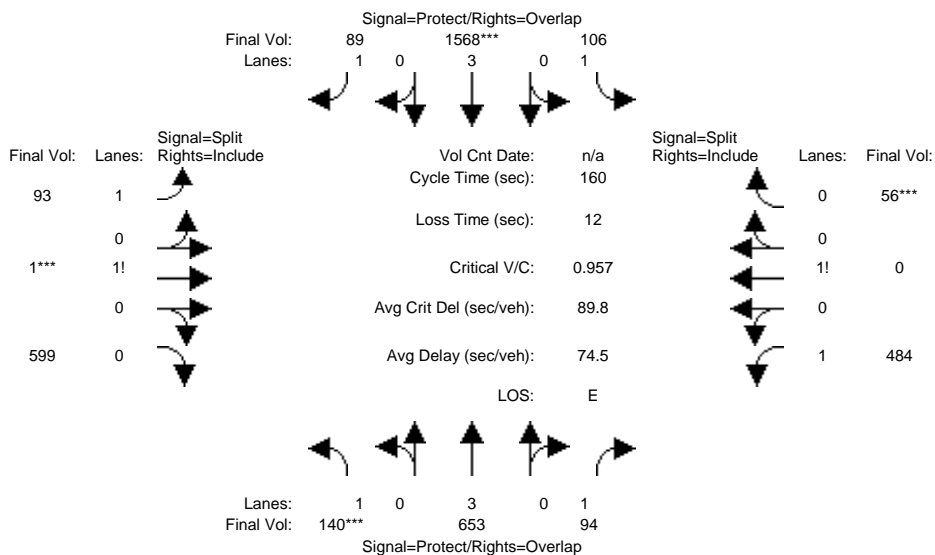
| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 0.95 | 0.95 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 1.07       | 0.01 | 0.92 | 1.81       | 0.00 | 0.19 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 1880       | 3    | 1664 | 3171       | 0    | 329  |

| Capacity Analysis Module: | North Bound |      |      | South Bound |      |       | East Bound |      |      | West Bound |      |       |
|---------------------------|-------------|------|------|-------------|------|-------|------------|------|------|------------|------|-------|
| Vol/Sat:                  | 0.08        | 0.11 | 0.05 | 0.06        | 0.27 | 0.05  | 0.05       | 0.36 | 0.36 | 0.15       | 0.00 | 0.17  |
| Crit Moves:               | ***         |      |      | ****        |      |       |            |      | **** |            |      | ****  |
| Green Time:               | 21.0        | 42.5 | 69.4 | 21.0        | 43.4 | 100.1 | 56.6       | 56.6 | 56.6 | 26.9       | 0.0  | 26.9  |
| Volume/Cap:               | 0.60        | 0.43 | 0.12 | 0.45        | 1.01 | 0.08  | 0.14       | 1.01 | 1.01 | 0.91       | 0.00 | 1.01  |
| Uniform Del:              | 65.5        | 48.7 | 27.1 | 64.1        | 58.3 | 11.8  | 35.1       | 51.7 | 51.7 | 65.3       | 0.0  | 66.5  |
| IncrcmntDel:              | 4.2         | 0.2  | 0.1  | 1.4         | 25.8 | 0.0   | 0.0        | 37.4 | 37.4 | 17.6       | 0.0  | 41.9  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0   | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0   |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 0.00 | 1.00  |
| Delay/Veh:                | 69.7        | 48.9 | 27.2 | 65.5        | 84.1 | 11.9  | 35.1       | 89.1 | 89.1 | 82.9       | 0.0  | 108.5 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00  |
| AdjDel/Veh:               | 69.7        | 48.9 | 27.2 | 65.5        | 84.1 | 11.9  | 35.1       | 89.1 | 89.1 | 82.9       | 0.0  | 108.5 |
| LOS by Move:              | E           | D    | C    | E           | F    | B+    | D+         | F    | F    | F          | A    | F     |
| HCM2kAvgQ:                | 8           | 9    | 3    | 5           | 30   | 2     | 3          | 40   | 40   | 17         | 0    | 21    |

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

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Bkgd+P PM

Intersection #24: Wolfe Rd & Central Expwy Ramps



| Street Name: | Wolfe Rd    |     |     |             |     |     | Central Expwy Ramps |     |     |            |     |     |
|--------------|-------------|-----|-----|-------------|-----|-----|---------------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound |     |     | South Bound |     |     | East Bound          |     |     | West Bound |     |     |
| Movement:    | L           | T   | R   | L           | T   | R   | L                   | T   | R   | L          | T   | R   |
| Min. Green:  | 7           | 10  | 10  | 7           | 10  | 10  | 10                  | 10  | 10  | 10         | 10  | 10  |
| Y+R:         | 4.0         | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0                 | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |

| Volume Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|----------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Base Vol:      | 137         | 650  | 94   | 103         | 1565 | 89   | 93         | 1    | 596  | 484        | 0    | 56   |
| Growth Adj:    | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Initial Bse:   | 137         | 650  | 94   | 103         | 1565 | 89   | 93         | 1    | 596  | 484        | 0    | 56   |
| Added Vol:     | 3           | 3    | 0    | 3           | 3    | 0    | 0          | 0    | 3    | 0          | 0    | 0    |
| PasserByVol:   | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Initial Fut:   | 140         | 653  | 94   | 106         | 1568 | 89   | 93         | 1    | 599  | 484        | 0    | 56   |
| User Adj:      | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| PHF Volume:    | 140         | 653  | 94   | 106         | 1568 | 89   | 93         | 1    | 599  | 484        | 0    | 56   |
| Reduct Vol:    | 0           | 0    | 0    | 0           | 0    | 0    | 0          | 0    | 0    | 0          | 0    | 0    |
| Reduced Vol:   | 140         | 653  | 94   | 106         | 1568 | 89   | 93         | 1    | 599  | 484        | 0    | 56   |
| PCE Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| MLF Adj:       | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00 |
| Final Volume:  | 140         | 653  | 94   | 106         | 1568 | 89   | 93         | 1    | 599  | 484        | 0    | 56   |

| Saturation Flow Module: | North Bound |      |      | South Bound |      |      | East Bound |      |      | West Bound |      |      |
|-------------------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Sat/Lane:               | 1900        | 1900 | 1900 | 1900        | 1900 | 1900 | 1900       | 1900 | 1900 | 1900       | 1900 | 1900 |
| Adjustment:             | 0.92        | 1.00 | 0.92 | 0.92        | 1.00 | 0.92 | 0.92       | 0.95 | 0.95 | 0.92       | 1.00 | 0.92 |
| Lanes:                  | 1.00        | 3.00 | 1.00 | 1.00        | 3.00 | 1.00 | 1.07       | 0.01 | 0.92 | 1.81       | 0.00 | 0.19 |
| Final Sat.:             | 1750        | 5700 | 1750 | 1750        | 5700 | 1750 | 1879       | 3    | 1664 | 3171       | 0    | 329  |

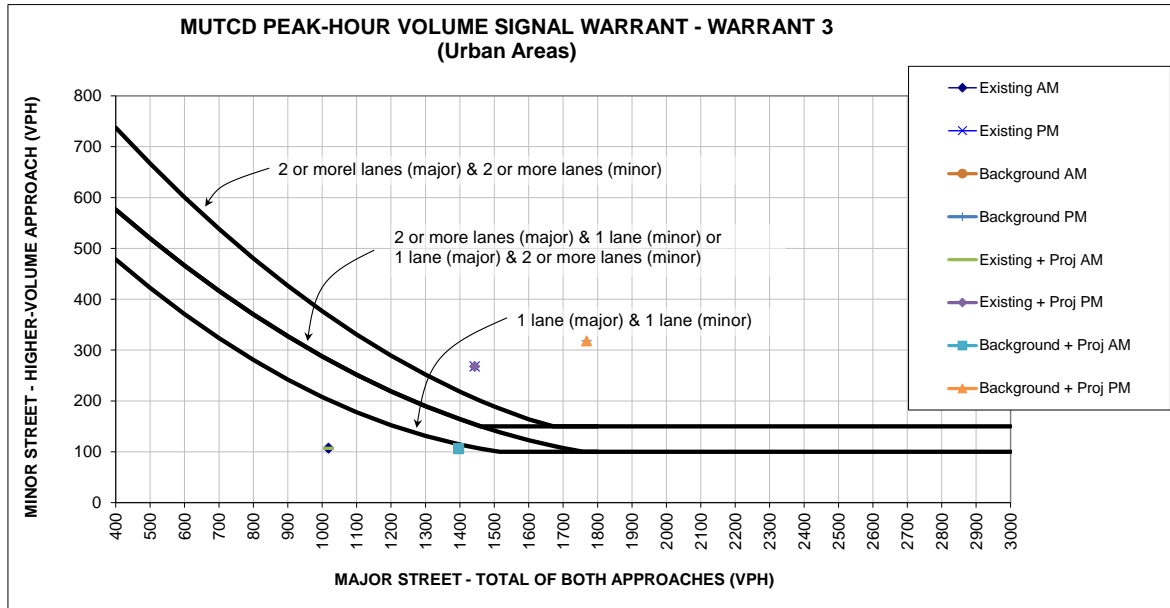
| Capacity Analysis Module: | North Bound |      |      | South Bound |      |       | East Bound |      |      | West Bound |      |       |
|---------------------------|-------------|------|------|-------------|------|-------|------------|------|------|------------|------|-------|
| Vol/Sat:                  | 0.08        | 0.11 | 0.05 | 0.06        | 0.28 | 0.05  | 0.05       | 0.36 | 0.36 | 0.15       | 0.00 | 0.17  |
| Crit Moves:               | ****        |      |      | ****        |      |       | ****       |      |      | ****       |      |       |
| Green Time:               | 21.0        | 42.1 | 69.0 | 21.0        | 43.4 | 100.1 | 56.8       | 56.8 | 56.8 | 26.9       | 0.0  | 26.9  |
| Volume/Cap:               | 0.61        | 0.44 | 0.12 | 0.46        | 1.01 | 0.08  | 0.14       | 1.01 | 1.01 | 0.91       | 0.00 | 1.01  |
| Uniform Del:              | 65.6        | 49.0 | 27.4 | 64.3        | 58.3 | 11.8  | 35.0       | 51.6 | 51.6 | 65.4       | 0.0  | 66.6  |
| IncrcmntDel:              | 4.7         | 0.2  | 0.1  | 1.5         | 26.6 | 0.0   | 0.0        | 38.1 | 38.1 | 18.0       | 0.0  | 42.7  |
| InitQueueDel:             | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0   | 0.0        | 0.0  | 0.0  | 0.0        | 0.0  | 0.0   |
| Delay Adj:                | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 0.00 | 1.00  |
| Delay/Veh:                | 70.3        | 49.2 | 27.4 | 65.7        | 84.9 | 11.8  | 35.1       | 89.7 | 89.7 | 83.4       | 0.0  | 109.3 |
| User DelAdj:              | 1.00        | 1.00 | 1.00 | 1.00        | 1.00 | 1.00  | 1.00       | 1.00 | 1.00 | 1.00       | 1.00 | 1.00  |
| AdjDel/Veh:               | 70.3        | 49.2 | 27.4 | 65.7        | 84.9 | 11.8  | 35.1       | 89.7 | 89.7 | 83.4       | 0.0  | 109.3 |
| LOS by Move:              | E           | D    | C    | E           | F    | B+    | D+         | F    | F    | F          | A    | F     |
| HCM2kAvgQ:                | 8           | 9    | 3    | 5           | 30   | 2     | 3          | 40   | 40   | 17         | 0    | 21    |

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

**Appendix D**  
**Signal Warrants**

824 San Aleso Summit School TIA

22 . Wolfe Rd & Maude Ave



Source: Figure 4C-3 of the Manual on Uniform Traffic Control and Devices (MUTCD) 2014 Edition from California Department of Transportation (Caltrans).  
 \* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes  
 and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

|  |           | AM Peak Hour            |      |             |               |                    |                      |  |  |  |
|--|-----------|-------------------------|------|-------------|---------------|--------------------|----------------------|--|--|--|
|  |           | Existing Approach Lanes |      | Existing AM | Background AM | Existing + Proj AM | Background + Proj AM |  |  |  |
|  |           | 2 or One                | More |             |               |                    |                      |  |  |  |
| Major Street - Both Approaches                             | Wolfe Rd  |                         | X    | 1018        | 1396          | 1018               | 1396                 |  |  |  |
| Minor Street - Highest Approach                            | Maude Ave |                         | X    | 368         | 220           | 368                | 220                  |  |  |  |
| Minimum warrant threshold for minor street volume          |           |                         |      |             |               |                    |                      |  |  |  |
| Difference between warrant threshold & minor street volume |           |                         |      |             |               |                    |                      |  |  |  |
| Warrant Met?   |           |                         |      | No          | No            | No                 | No                   |  |  |  |

|  |           | PM Peak Hour            |      |             |               |                    |                      |  |  |  |
|--|-----------|-------------------------|------|-------------|---------------|--------------------|----------------------|--|--|--|
|  |           | Existing Approach Lanes |      | Existing PM | Background PM | Existing + Proj PM | Background + Proj PM |  |  |  |
|  |           | 2 or One                | More |             |               |                    |                      |  |  |  |
| Major Street - Both Approaches                             | Wolfe Rd  |                         | X    | 1443        | 1768          | 1443               | 1768                 |  |  |  |
| Minor Street - Highest Approach                            | Maude Ave |                         | X    | 268         | 318           | 268                | 318                  |  |  |  |
| Minimum warrant threshold for minor street volume          |           |                         |      |             |               |                    |                      |  |  |  |
| Difference between warrant threshold & minor street volume |           |                         |      |             |               |                    |                      |  |  |  |
| Warrant Met?   |           |                         |      | Yes         | Yes           | Yes                | Yes                  |  |  |  |