# TRAFFIC IMPACT STUDY


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# DEEP CREEK ROAD GAS STATION

## UNINCORPORATED AREA OF APPLE VALLEY, CALIFORNIA

*Prepared by:*

DAVID EVANS AND ASSOCIATES INC.

**FINAL REPORT**
**May 22, 2019**

DAVID EVANS
AND ASSOCIATES INC.

May 22, 2019 Job No. MMAI0000-1001

Mr. Mark Maida
**Deep Creek Road Gas Station**
13302 Ranchero Road
Oak Hills, CA 92344

**RE: FINAL TRAFFIC IMPACT ANALYSIS – DEEP CREEK ROAD GAS STATION – UNINCORPORATED AREA OF APPLE VALLEY, CALIFORNIA**

Dear Mr. Maida:

**David Evans and Associates, Inc.** is pleased to submit this Final Traffic Impact Analysis report for the proposed Deep Creek Road Gas Station development project in the unincorporated area of Apple Valley, California.

The report evaluates potential project-specific traffic impacts and recommends traffic improvements if any impacts are determined to be significant. The report also evaluates the impacts of overall growth in development to determine if the proposed project, cumulatively with other development, contributes to significant impacts. The report has been prepared in coordination with the San Bernardino County Engineering Department who approved the scope of work prior to preparation of this report. The analysis and methods employed in the report comply with California Environmental Quality Act (CEQA) requirements.

We are pleased to have been of assistance to you in processing and obtaining approval for the project. If you have any questions or comments, please feel free to contact me at 760-524-9115.

Respectfully submitted,

**David Evans and Associates, Inc.**


Robert A. Kilpatrick, P.E., T.E.
Senior Project Manager / Senior Associate

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## 1 INTRODUCTION

This report identifies the traffic impacts and presents recommendations for access and traffic mitigation for the proposed Deep Creek Road Gas Station located on the southwest corner of Rock Springs Road and Deep Creek Road. The project, identified as Deep Creek Road Gas Station, consists of a Gas Station with twelve pumps and Convenience Store in the unincorporated area of Apple Valley, California. The site is accessed from a driveway along Rock Springs Road and another driveway along Deep Creek Road. *Figure 1* illustrates the vicinity map, and *Figure 2* illustrates the proposed project site plan.

The intent of this Traffic Impact Analysis (TIA) report is to identify and recommend mitigation for significant impacts caused by, or contributed to, by the proposed project under the following study scenarios:

- Existing Conditions
- Background (Cumulative) Conditions
- Project Conditions
- Future Year 2040 Conditions
- Future Year 2040 Plus Project Conditions

The Existing Condition analysis is based on traffic counts collected in February 2018 and reflects the current conditions in the study area.

The Background (Cumulative) Condition addresses impacts due to ambient growth in traffic up to the project buildout year of 2019 within the study area. Ambient growth is estimated at two percent of the existing traffic volumes annually.

The Project Condition analyzes the effects of project traffic added to the Background (Cumulative) Condition. This analysis identifies impacts that the proposed project contributes to, along with other cumulative development, and may be required to fund its fair share of the necessary mitigations.

The Future Year 2040 Conditions addresses impacts due to growth of the surrounding regional area up to the year 2040. The growth in traffic reflecting the year 2040 was derived from the San Bernardino County Transportation Authority (SBCTA) traffic forecast model.

The Future Year 2040 Plus Project Conditions addresses impacts due to growth of the surrounding regional area to the year 2040 plus the proposed project


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FIGURE 1: VICINITY MAP
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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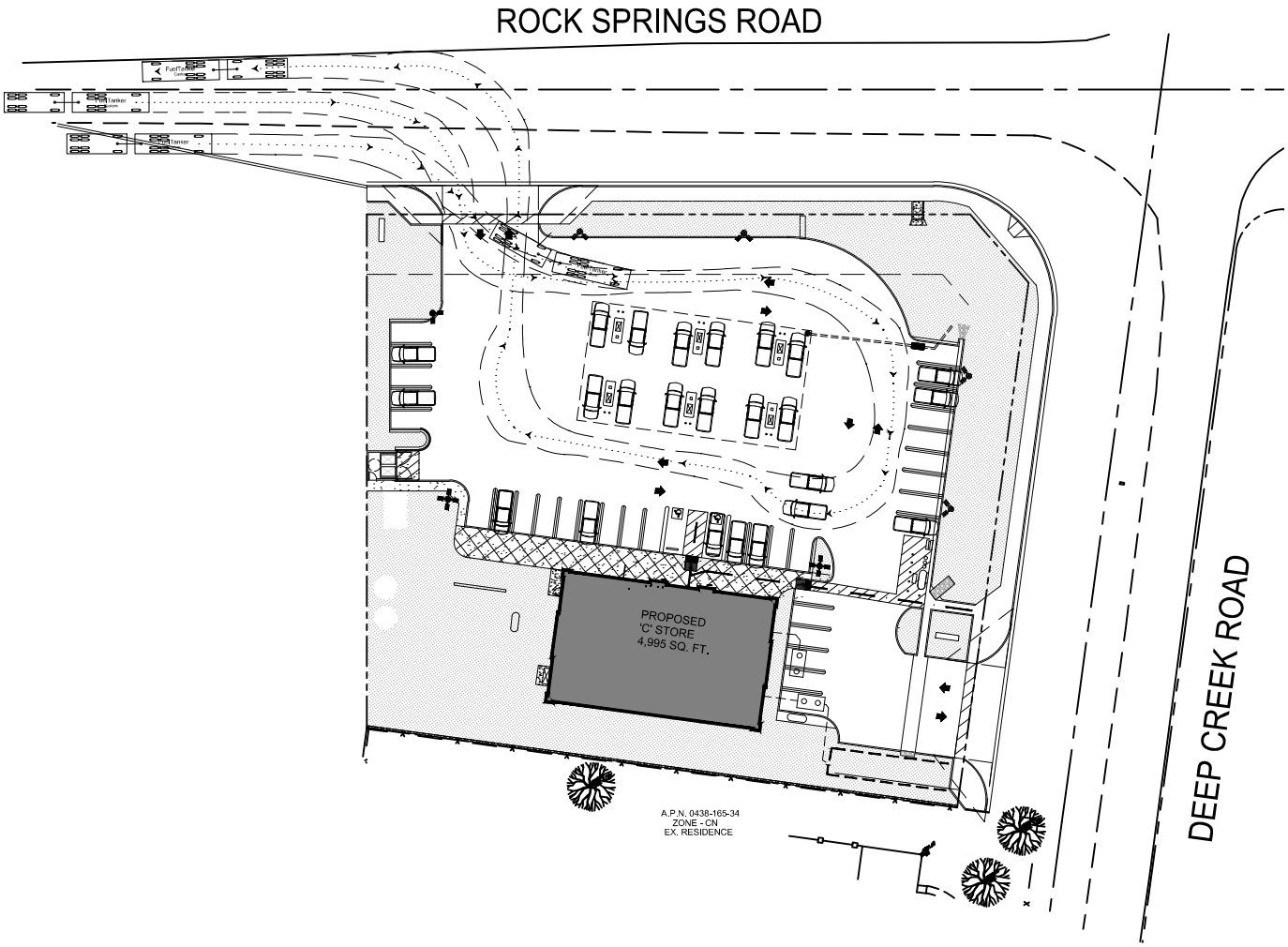


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FIGURE 2: SITE PLAN
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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## 2 EXISTING CONDITIONS

Currently the project site is vacant and undeveloped land. The proposed project is bounded to the north by Rock Springs Road and BNSF Railroad right-of-way, to the east by Deep Creek Road and undeveloped land, to the south by residential housing, and to the west by undeveloped land.

### Local and Major Roadways

**Rock Springs Road** is east-west primarily two-lane road (one in each direction, with turn pockets at key intersections). Rock Springs Road provides direct access to the project site. The road extends from the intersection with Main St/Arrowhead Lake Rd on the west to the intersection with Kiowa Rd on the east. The posted speed limit within the project area is 50 mph. The San Bernardino County Land Use Plan Circulation and Transportation General Plan dated March 13, 2012 identifies Rock Springs Road as a Major Highway.

**Deep Creek Road** is a local north-south roadway primarily two-lane (one in each direction). Deep Creek Road provides direct access to the project site. The road extends from the intersection with Bear Valley Road on the north to the intersection with Saddle Dike Embankment on the south. The San Bernardino County Land Use Plan Circulation and Transportation General Plan dated March 13, 2012 identifies Deep Creek Road as a Secondary Highway.

Primary access to the project is from one driveway along Rock Springs Road and one driveway along Deep Creek Road. The project would potentially impact the following one existing public street intersection and two future driveway intersections within the study area:

1. Rock Springs Road and Deep Creek Road
2. Rock Springs Road and Project Driveway “A” (future intersection)
3. Deep Creek Road and Project Driveway “B” (future intersection)

The intersection of Rock Springs Road and Deep Creek Road is signalized.

### Existing Traffic Volumes

*Figure 3* provides the existing intersection traffic volumes. Newport Traffic Studies (NTS) conducted AM (7:00-9:00 AM) and PM (4:00-6:00 PM) peak period turn movement counts in February 2018.

### Capacity Analysis Methodologies

Intersection capacity analyses were conducted using Synchro software (**1**), which implements the methods of the Highway Capacity Manual, 6th Edition (HCM 6) used in this report. The intersection capacity analyses utilize existing intersection geometrics and existing and forecasted traffic volumes in analyzing AM and PM peak hour intersection operating conditions. The traffic analysis methodology concepts presented in Chapters 19, 20, and 21 of the Highway Capacity Manual (HCM 6) (**2**) were utilized to calculate intersection Level of Service (LOS) based on the average control delay (in seconds per vehicle) of vehicles utilizing intersections. *Table 2-1* provides the HCM 6 LOS thresholds for signalized intersections. Table 2-2 provides the HCM 6 LOS thresholds for two way stop controlled (TWSC). *Table 2-3* for all way stop controlled (AWSC) intersections.

1 Trafficware Ltd, version 10.
2 Transportation Research Board, Washington D.C., 2010.

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### Signalized Intersections

The analysis determines a LOS that quantitatively describes the operating characteristics of signalized intersections. *Table 2-1* provides LOS thresholds for signalized intersections as provided in the HCM 6 Chapter 19.

Table 2-1: HCM 6 – LOS Criteria for Signalized Intersections

| Control Delay (s/veh) | LOS by Volume-to-Capacity Ratio[a] ≤1.0 | >1.0 |
|---|---|---|
| ≤ 10 | A | F |
| > 10 - 20 | B | F |
| > 20 - 35 | C | F |
| > 35 - 55 | D | F |
| > 55 - 80 | E | F |
| > 80 | F | F |

Note: [a]For approach-based and intersectionwide assessments, LOS is defined solely by control delay.
Source: Highway Capacity Manual 6th Edition, Exhibit 19-8.

### Unsignalized Intersections

The LOS for a Two-Way-Stop-Controlled (TWSC) intersection is determined by the computed or measured control delay. The LOS is determined for each minor-street movement (or shared movement), as major-street left turns, by using the criteria provided in *Table 2-2* referenced from HCM 6 LOS thresholds for TWSC as provided in the HCM 6 Chapter 20.

Table 2-2: HCM 6 – LOS Criteria for TWSC

| Control Delay (s/veh) | LOS by Volume-to-Capacity Ratio v/c ≤1.0 | v/c >1.0 |
|---|---|---|
| 0 - 10 | A | F |
| > 10 -15 | B | F |
| > 15 - 25 | C | F |
| > 25 - 35 | D | F |
| > 35 - 50 | E | F |
| > 50 | F | F |

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-Street approaches or for the intersection as a whole.
Source: Highway Capacity Manual 6th Edition, Exhibit 20-2.

The analysis determines a LOS that quantitatively describes the operating characteristics of All-Way-Stop-Controlled (AWSC intersections. Table 2-3 provides LOS thresholds for AWSC intersections as provided in the HCM 6 Chapter 21.

Table 2-3: HCM 6 – LOS Criteria for AWSC

| Control Delay (s/veh) | LOS by Volume-to-Capacity Ratio[a] v/c ≤1.0 | v/c >1.0 |
|---|---|---|
| 0 - 10 | A | F |
| > 10 -15 | B | F |
| > 15 - 25 | C | F |
| > 25 - 35 | D | F |
| > 35 - 50 | E | F |
| > 50 | F | F |

Note: [a]For approach-based and intersectionwide assessments, LOS is defined solely by control delay.
Source: Highway Capacity Manual 6th Edition, Exhibit 21-8.

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## Existing Traffic Analysis

The existing intersection capacity analysis uses existing intersection geometrics and existing AM and PM peak hour traffic counts to determine level of service. *Table 2-4* and *Appendix B* provide the results of the analysis. *Figure 4* illustrates the existing geometrics utilized in the capacity analysis.

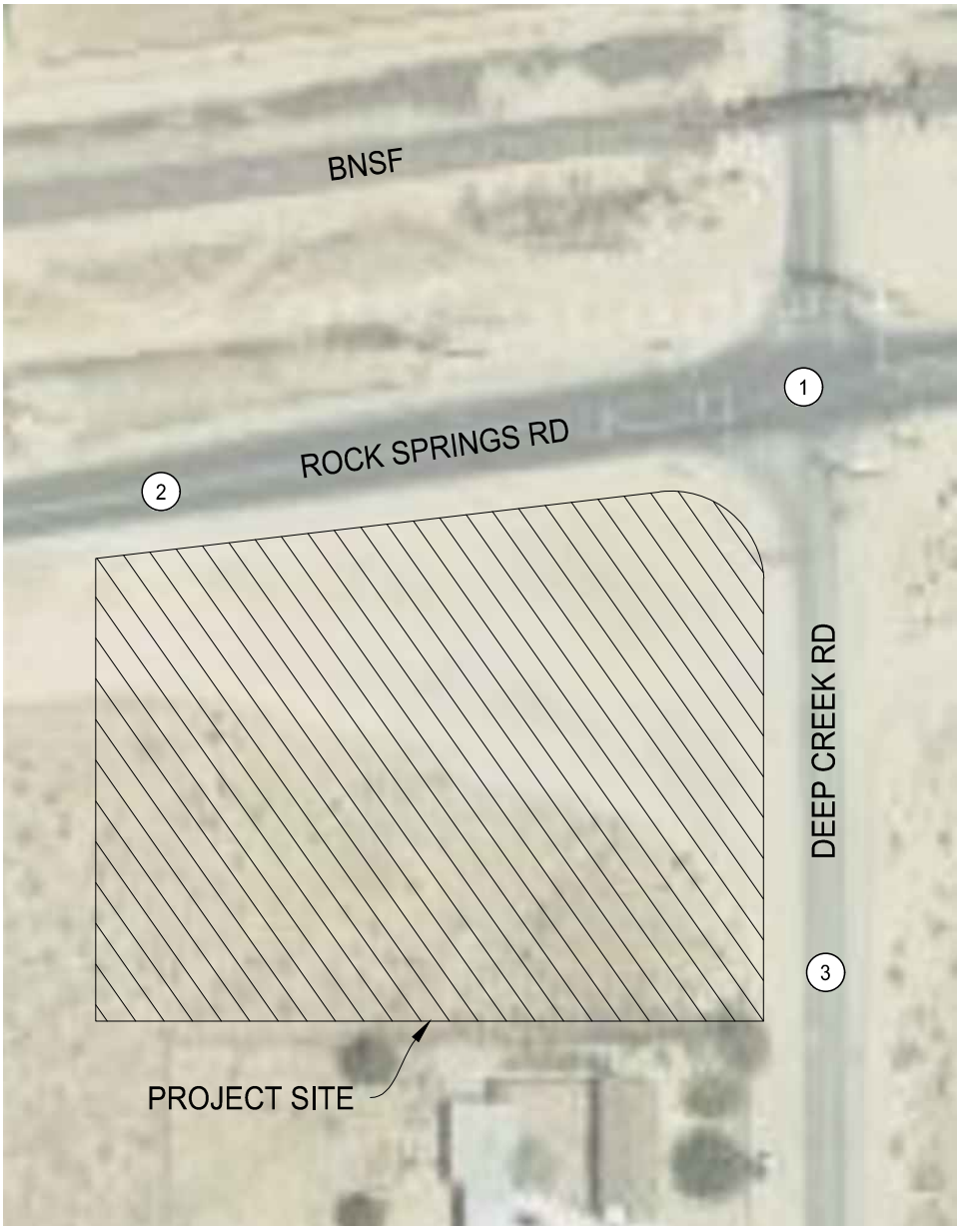
Table 2-4: Intersection Capacity Analysis – Existing Conditions

| | Intersection | AM Peak Hour | | PM Pear Hour | |
|---|---|---|---|---|---|
| | | Delay(1) | LOS(2) | Delay(1) | LOS(2) |
| 1 | Rock Springs Road and Deep Creek Road | 16.1 | B | 16.1 | B |

(1) Delay – In seconds per vehicle
(2) LOS – Level of Service
(3) Stop controlled intersection

Source: David Evans and Associates, Inc.

As presented in *Table 2-4,* under Existing Conditions, the study intersection operates at an acceptable LOS.




## LEGEND

XX/XX - AM/PM PROJECT TRIP

(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

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FIGURE 3: EXISTING TRAFFIC VOLUMES
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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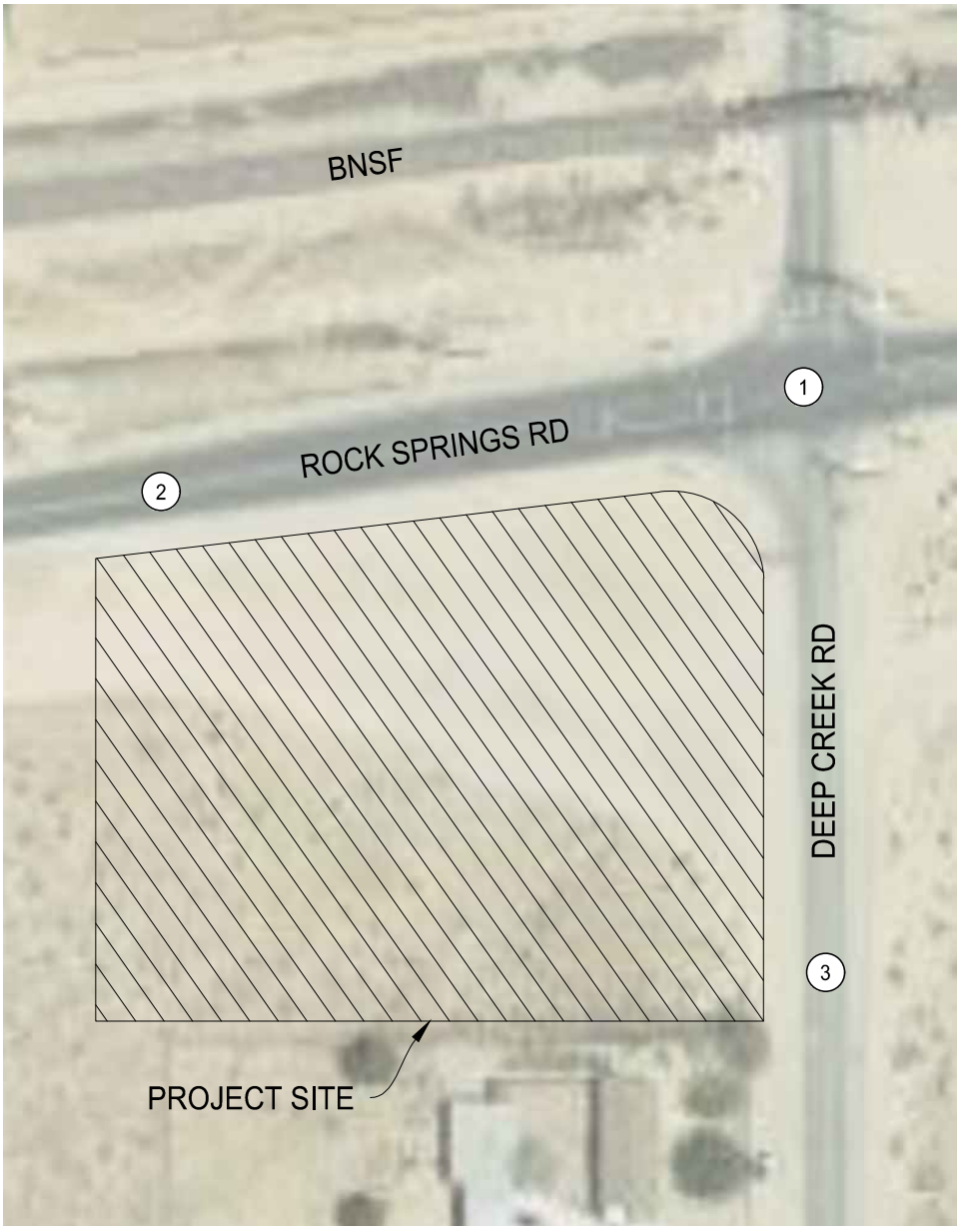


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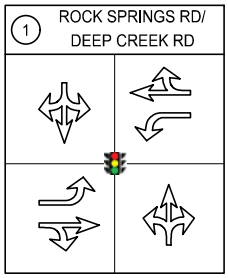


## LEGEND

- EXISTING GEOMETRICS
- (#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

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FIGURE 4: EXISTING GEOMETRICS
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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## 3 BACKGROUND TRAFFIC CONDITIONS – YEAR 2019

The Background Conditions scenario evaluates impacts due to ambient growth in traffic within the study area up to the project opening year of 2019. Typically, ambient growth in traffic ranges from 1% to 2% annually— the ambient growth in traffic in this report uses a 2% annual rate of growth applied to existing traffic volumes.

### Area Growth

To analyze the project impacts, the inclusion of traffic generated by other projects within the study area is necessary. The Other Area projects include approved projects that were recently constructed or to be constructed by project opening year of 2019.

### Background Traffic Analysis

The Background Conditions intersection capacity analysis utilized existing intersection geometrics and the projected AM and PM peak hour traffic volumes shown in *Figure 5*. *Table 3-1* and *Appendix B* provides the results of the analysis.

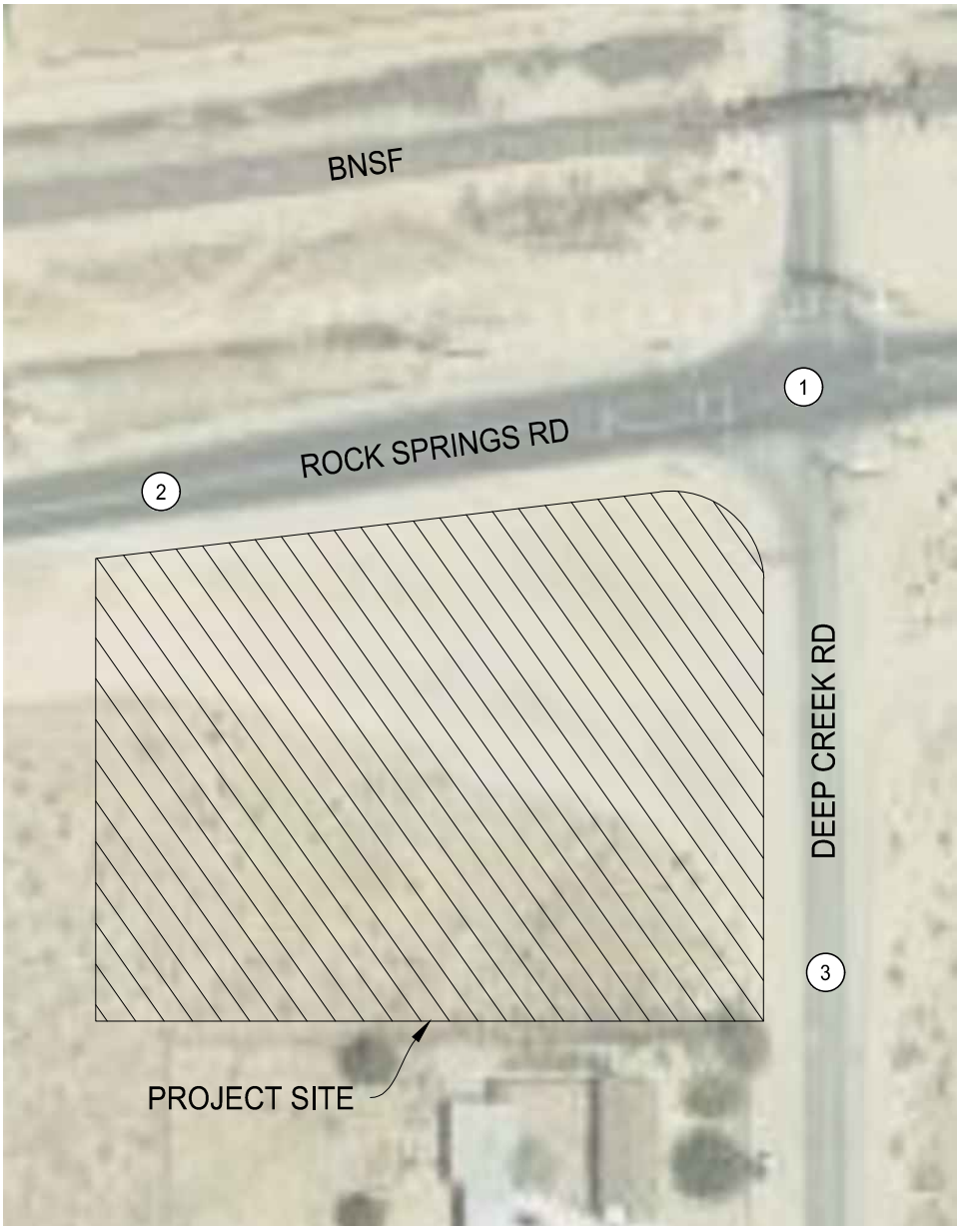
Table 3-1: Intersection Capacity Analysis – Background Conditions

| | Intersection | AM Peak Hour | | PM Pear Hour | |
|---|---|---|---|---|---|
| | | Delay(1) | LOS(2) | Delay(1) | LOS(2) |
| 1 | Rock Springs Road and Deep Creek Road | 16.8 | B | 16.7 | B |

(1) Delay – In seconds per vehicle
(2) LOS – Level of Service
(3) Stop controlled intersection

Source: David Evans and Associates, Inc.

As presented in *Table 3-1,* the study intersection under Background Conditions continues to operate at an acceptable LOS.




## LEGEND

XX/XX - AM/PM PROJECT TRIP

(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

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FIGURE 5: BACKGROUND TRAFFIC VOLUMES
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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# 4 PROJECT CONDITIONS

The proposed project is anticipated to open in the year 2019. The estimated project trips are added to the Background Condition traffic volumes to represent Project Conditions.

## Project Trip Generation

To identify potential traffic impacts, trip generation factors are applied to the proposed land uses to estimate project vehicle trips. Trip generation factors for the Super Convenience Market/Gas Station (ITE 960) were obtained from the Institute of Transportation Engineers (ITE) Trip Generation manual, 10th Edition.

Commuter oriented land uses such as gas stations attract trips (known as "pass-by" trips) from traffic passing the site on the way from an origin to an ultimate destination. The Gas Station with Convenience Market (ITE Land Use Category 945) pass-by trip factors were referenced in approximating the pass-by parameters utilized in this study. These pass-by trip factors were referenced for the Super Convenience Market/Gas Station (ITE 960), since such parameters are not available in the ITE Trip Generation Manual, 10th Edition.

*Table 4-1* summarizes the estimated daily, AM peak hour, and PM peak hour trip generation for the project site.

Table 4-1: Estimated Project Trip Generation

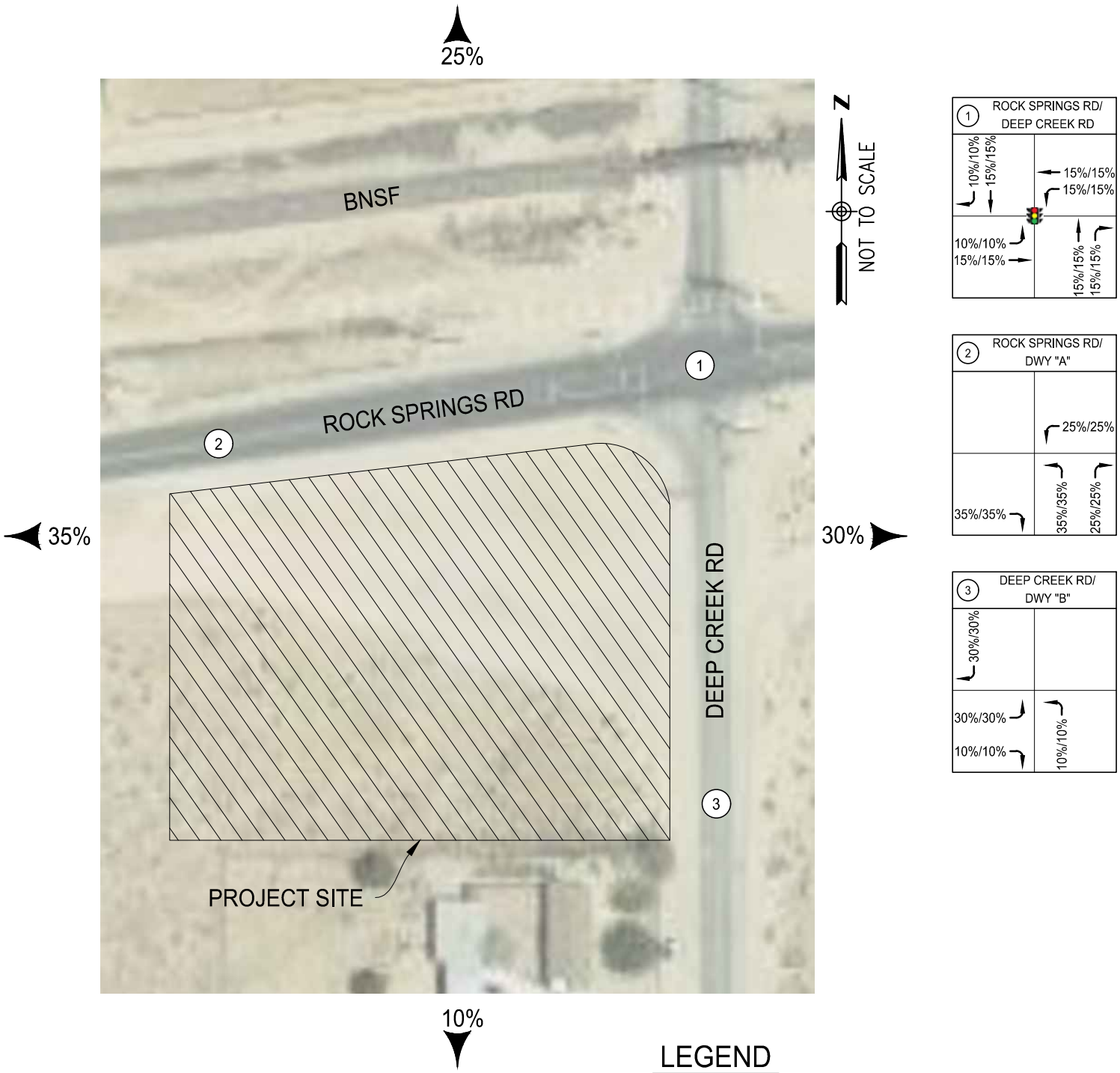
| Land Use | | Daily | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|
| | | | In | Out | Total | In | Out | Total |
| **1** | **Super Convenience Market/Gas Station** | | | | | | | |
| | (ITE 960) Vehicle Fueling Positions | 230.52 | 14.04 | 14.04 | 28.08 | 11.48 | 11.48 | 22.96 |
| | 12 Gasoline Fueling Pump Position | 2,766 | 169 | 169 | 338 | 138 | 138 | 276 |
| | **Breakdown of Project Trips** | | | | | | | |
| | Pass-By Trips (AM = 62% / PM = 56%) | 1,632 | 105 | 105 | 210 | 77 | 77 | 154 |
| | Primary Trips (AM = 38% / PM = 44%) | 1,134 | 64 | 64 | 128 | 61 | 61 | 122 |

Source: "Trip Generation Manual, Institute of Transportation Engineers", 10th Edition

As presented in *Table 4-1,* the total trips at the project driveways is estimated to be 338 and 276 trips in the AM and PM peak hours respectively. The majority of these trips are pass-by trips, trips that are already passing by the site on adjacent streets and that stop at the site as an interim stop between their origin and primary destination. The project would generate 128 primary trips during the AM peak and 122 primary trips during the PM peak hours—primary trips are new trips added to the surrounding street network.

## Project Trip Distribution and Assignment

The project trips are distributed by direction and assigned to the local network of streets. *Figure 6* illustrates the distribution of the primary project trips*. Figure 7*, *Figure 8* and *Figure 9* illustrate the primary, pass-by, and total project trips respectively.




## LEGEND

XX% - GENERAL PROJECT TRIP DISTRIBUTION

XX% - SPECIFIC PROJECT TRIP PERCENTAGE

(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

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FIGURE 6: PRIMARY TRIP DISTRIBUTION
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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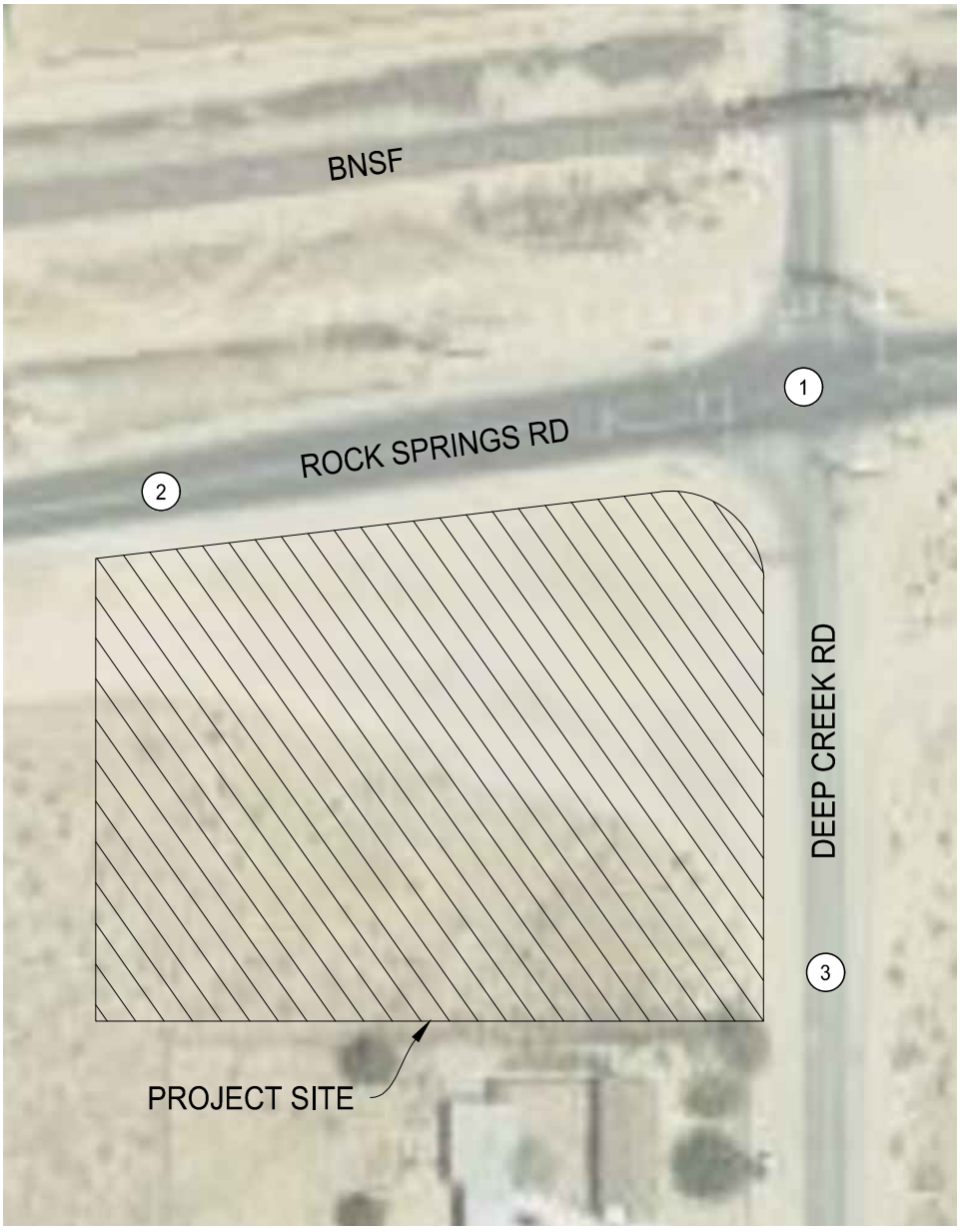


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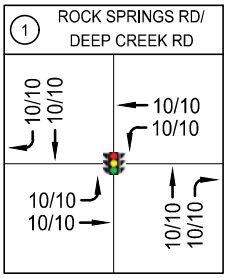


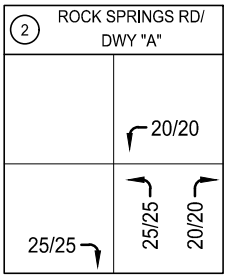


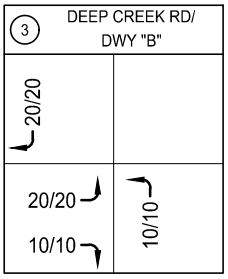


## PROJECT TRIPS

AM PEAK PERIOD - 64 IN / 64 OUT
PM PEAK PERIOD - 61 IN / 61 OUT

## LEGEND

XX/XX - AM/PM PROJECT TRIP
(#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

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FIGURE 7: PRIMARY PROJECT TRIPS
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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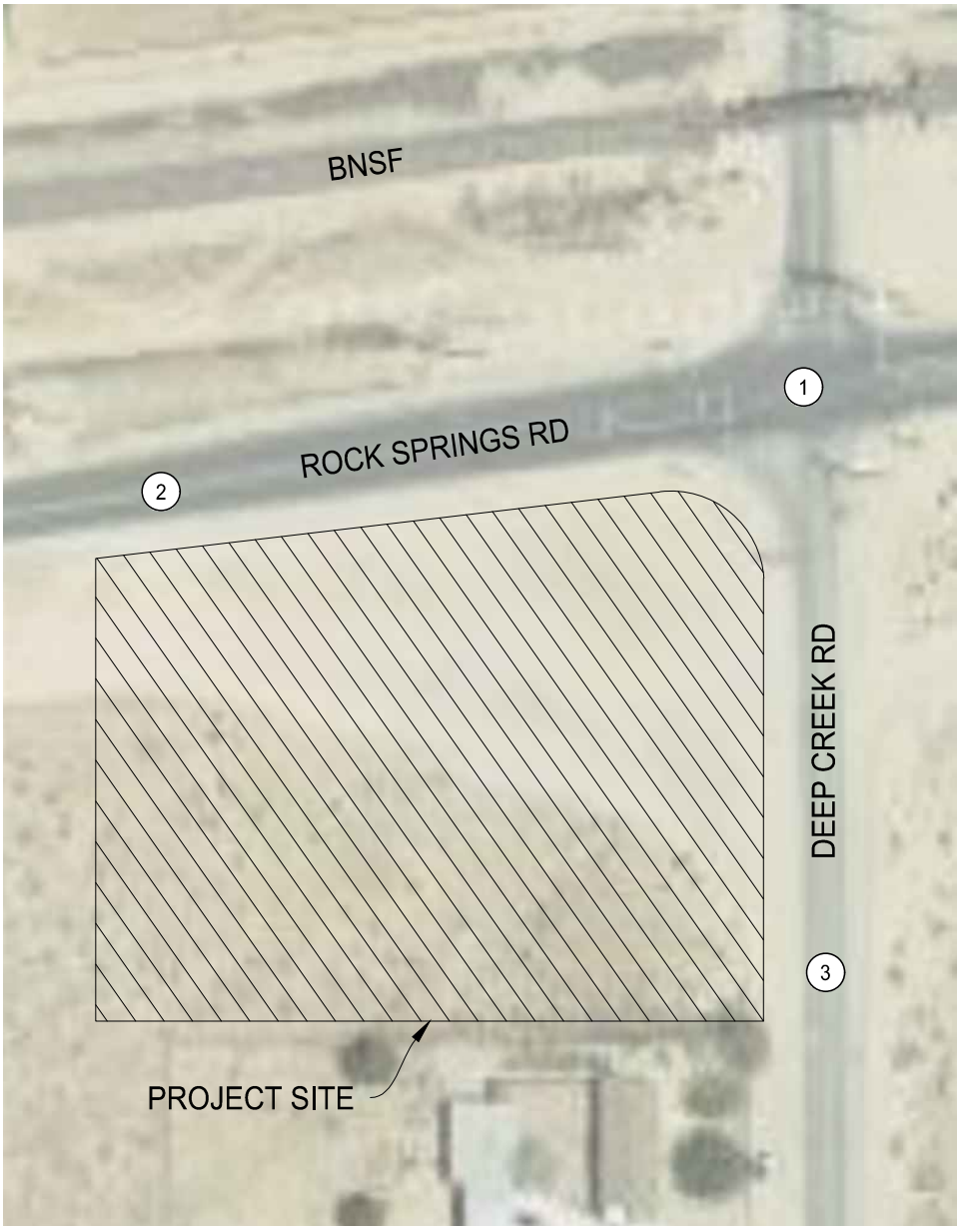


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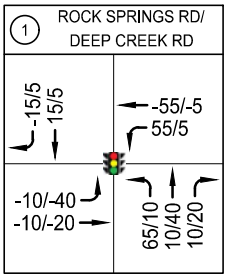


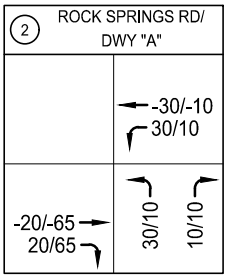


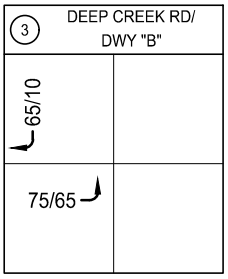


## PROJECT TRIPS

AM PEAK PERIOD - 105 IN / 105 OUT
PM PEAK PERIOD - 77 IN / 77 OUT

## LEGEND

XX/XX - AM/PM PROJECT TRIP
(#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

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FIGURE 8: PASS-BY PROJECT TRIPS
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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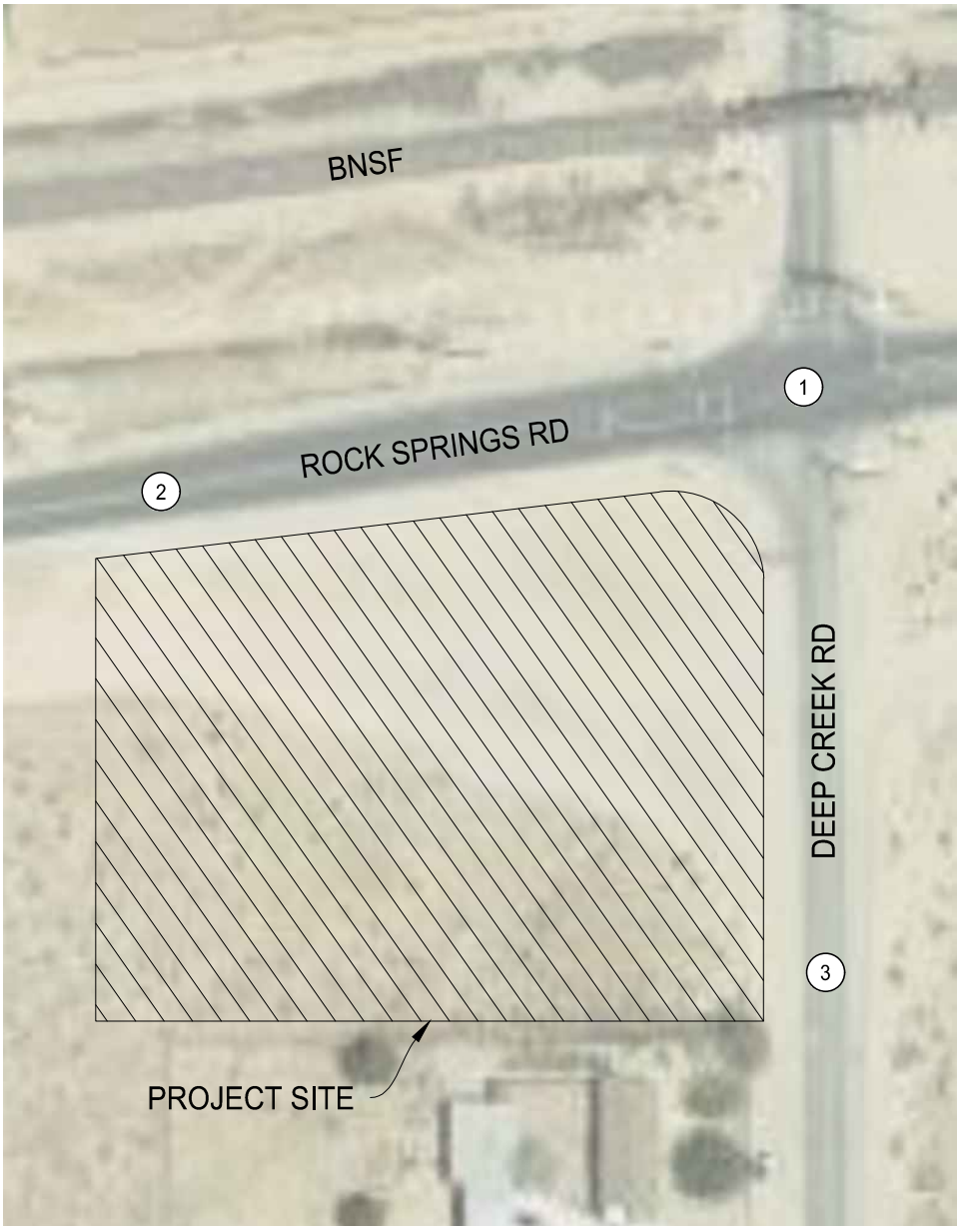


## PROJECT TRIPS

AM PEAK PERIOD - 169 IN / 169 OUT
PM PEAK PERIOD - 138 IN / 138 OUT

## LEGEND

XX/XX - AM/PM PROJECT TRIP
(#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

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FIGURE 9: TOTAL PROJECT TRIPS
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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**Project Traffic Analysis**

The intersection capacity analysis of Project Conditions utilized existing intersection geometrics and the AM and PM peak hour traffic volumes shown in *Figure 10*. *Figure 11* illustrates the project condition geometrics. *Table 4-2* and *Appendix B* provide the results of the analysis.

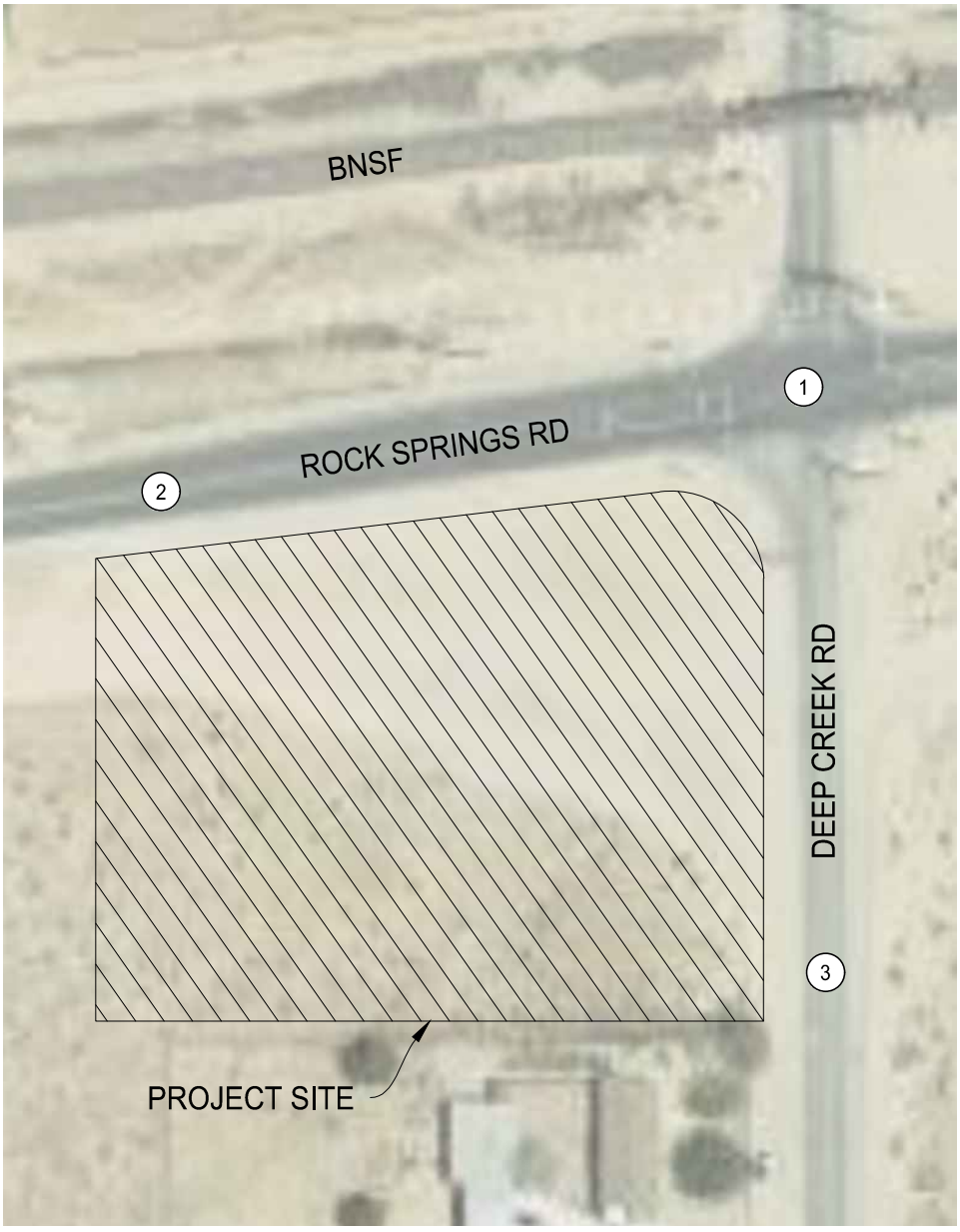
Table 4-2: Intersection Capacity Analysis – Project Conditions

| Intersection | | AM Peak Hour | | PM Pear Hour | |
|---|---|---|---|---|---|
| | | Delay(1) | LOS(2) | Delay(1) | LOS(2) |
| 1 | Rock Springs Road and Deep Creek Road | 19.0 | B | 17.6 | B |
| 2 | Rock Springs Road and Project Driveway "A" (3) | 26.6 | D | 23.7 | C |
| 3 | Deep Creek Road and Project Driveway "B" (3) | 10.3 | B | 10.5 | B |

(1) Delay – In seconds per vehicle
(2) LOS – Level of Service
(3) Stop controlled intersection

Source: David Evans and Associates, Inc.

As presented in *Table 4-2,* all study intersections under Project Conditions would operate at an acceptable level of service.




## LEGEND

XX/XX - AM/PM PROJECT TRIP

(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.



FIGURE 10: PROJECT TRAFFIC VOLUMES
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

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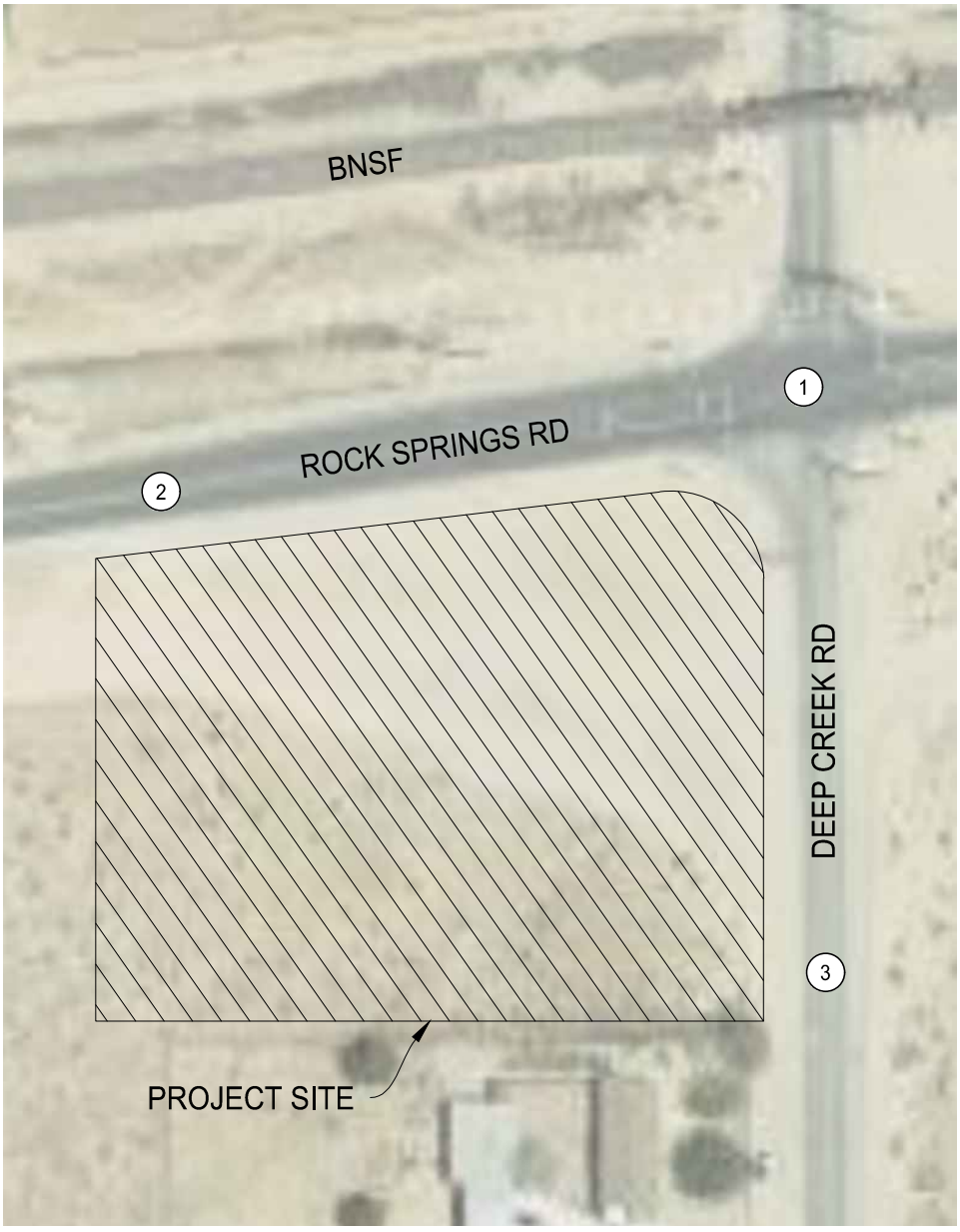


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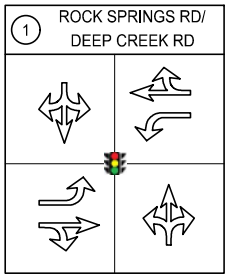
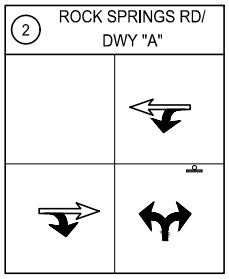
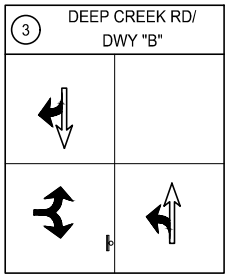



## LEGEND

- EXISTING GEOMETRICS
- PROPOSED GEOMETRICS
- (#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.



FIGURE 11: PROJECT GEOMETRICS
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

## 5 FUTURE YEAR 2040 CONDITIONS

The Future Year 2040 Condition evaluates impacts of forecasted regional growth to the year 2040. Future year 2040 traffic projections were developed from the San Bernardino Transportation Analysis Model (SBTAM). Intersection turn movements were derived from existing traffic counts and the model's forecasted approach volumes for each study intersection (**3**). The SBTAM traffic model plots are provided in *Appendix A.*

### Future Year 2040 Traffic Analysis

The intersection capacity analysis under Future Year 2040 Conditions utilizes existing intersection geometrics and the projected AM and PM peak hour traffic volumes shown in *Figure 12*. *Table 5-1* and *Appendix B* provide the results of the analysis.

Table 5-1: Intersection Capacity Analysis – Future Year 2040 Conditions

| Intersection | | AM Peak Hour | | PM Pear Hour | |
|---|---|---|---|---|---|
| | | Delay(1) | LOS(2) | Delay(1) | LOS(2) |
| 1 | Rock Springs Road and Deep Creek Road | 16.7 | B | 24.9 | C |

(1) Delay – In seconds per vehicle
(2) LOS – Level of Service
(3) Stop controlled intersection

Source: David Evans and Associates, Inc.

As presented in *Table 5-1* under the Future Year 2040 Conditions without the project, the study intersection would operate at an acceptable level of service (LOS C or better).

### Future Year 2040 Plus Project Traffic Analysis

The intersection capacity analysis under Future Year 2040 plus Project Conditions utilizes existing intersection geometrics and the projected AM and PM peak hour traffic volumes shown in *Figure 13*. *Table 5-2* and *Appendix B* provide the results of the analysis.

Table 5-2: Intersection Capacity Analysis – Future Year 2040 plus Project Conditions

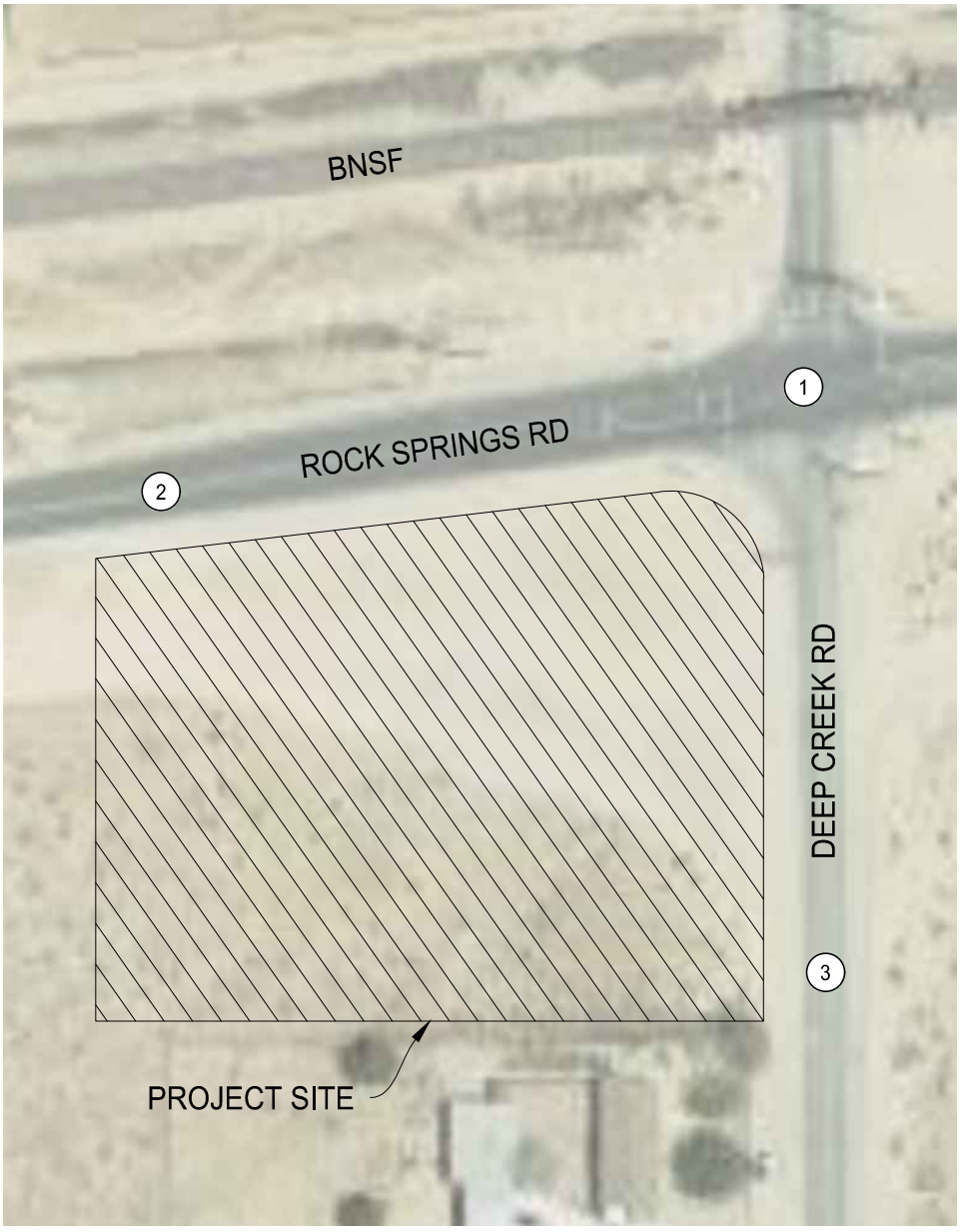
| Intersection | | AM Peak Hour | | PM Pear Hour | |
|---|---|---|---|---|---|
| | | Delay(1) | LOS(2) | Delay(1) | LOS(2) |
| 1 | Rock Springs Road and Deep Creek Road | 25.2 | C | 24.3 | C |
| 2 | Rock Springs Road and Project Driveway "A" (3) | 40.7 | E | 41.2 | E |
| 3 | Deep Creek Road and Project Driveway "B" (3) | 12.4 | B | 10.0 | B |

(1) Delay – In seconds per vehicle
(2) LOS – Level of Service
(3) Stop controlled intersection

Source: David Evans and Associates, Inc.

As presented in *Table 5-2* under Future Year 2040 plus Project Conditions, the public street intersection operates at an acceptable LOS C in the AM and PM peak hour. Project driveway "A" on Rock Springs Road operates at a LOS E in the AM and PM peak hours. This is an acceptable level of service for private driveways with the delay occurring on the driveway approach of the intersection.

3 Methodology from NCHRP Report 765: Analytical Travel Forecasting Approaches for Project-Level Planning and Design. National Cooperative Highway Research Program (NCHRP). Washington, D.C. 2014.




## LEGEND

XX/XX - AM/PM PROJECT TRIP

(#) - STUDY INTERSECTIONS

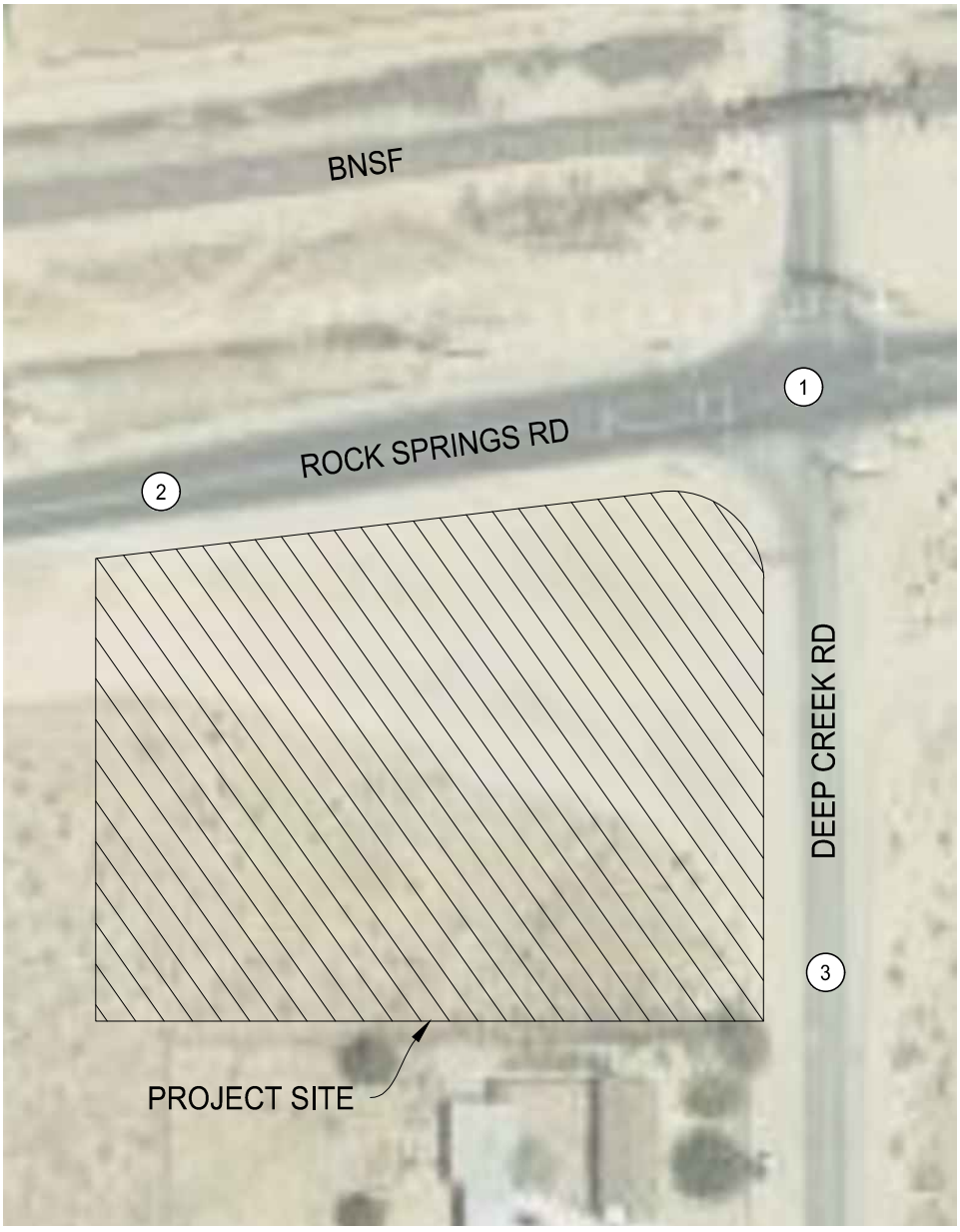
- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.

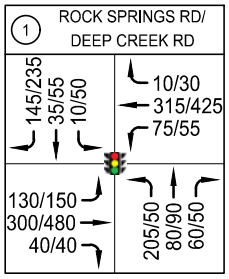


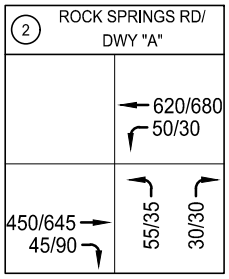
FIGURE 12: FUTURE YEAR 2040
TRAFFIC VOLUMES
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

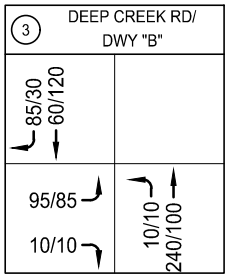



N

NOT TO SCALE




## LEGEND

XX/XX - AM/PM PROJECT TRIP

(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.



FIGURE 13: FUTURE YEAR 2040 PLUS
PROJECT TRAFFIC VOLUMES
DEEP CREEK GAS STATION
APPLE VALLEY, CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

## 6 PROJECT MITIGATION AND SUMMARY

In summary, the project as presented will not cause significant impacts to the study intersections.

### Project Specific Mitigations

In summary, the addition of traffic from the proposed project does not cause any of the public street study intersections to exceed the County of San Bernardino's level of service standard, individually or cumulatively, and therefore does not result in any significant traffic impacts requiring mitigation. The following are project-specific improvements to facilitate access to the site.

1. Construct frontage improvements (curb, gutter, and sidewalk) to County standards along Rock Springs Road and Deep Creek Road.

2. Construct a full access driveway on Rock Springs Road at the location identified as Project Driveway "A" on the site plan.

3. Construct a full access driveway on Deep Creek Road at the location identified as Project Driveway "B" on the site plan.

DAVID EVANS
AND ASSOCIATES INC.

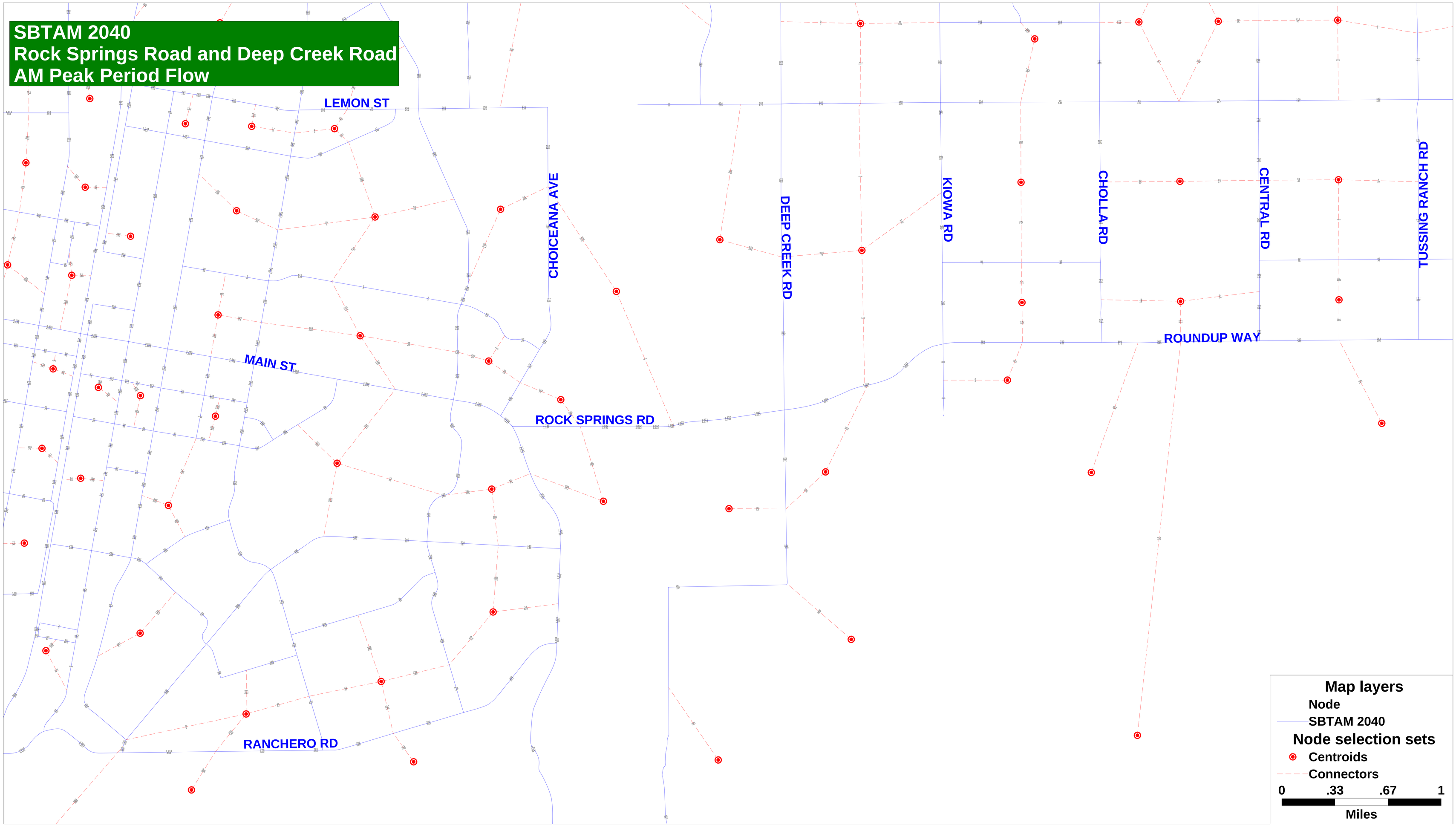
# 7 APPENDICES

Appendix A: SBTAM Plots
Appendix B: Intersection Capacity Analysis Calculations

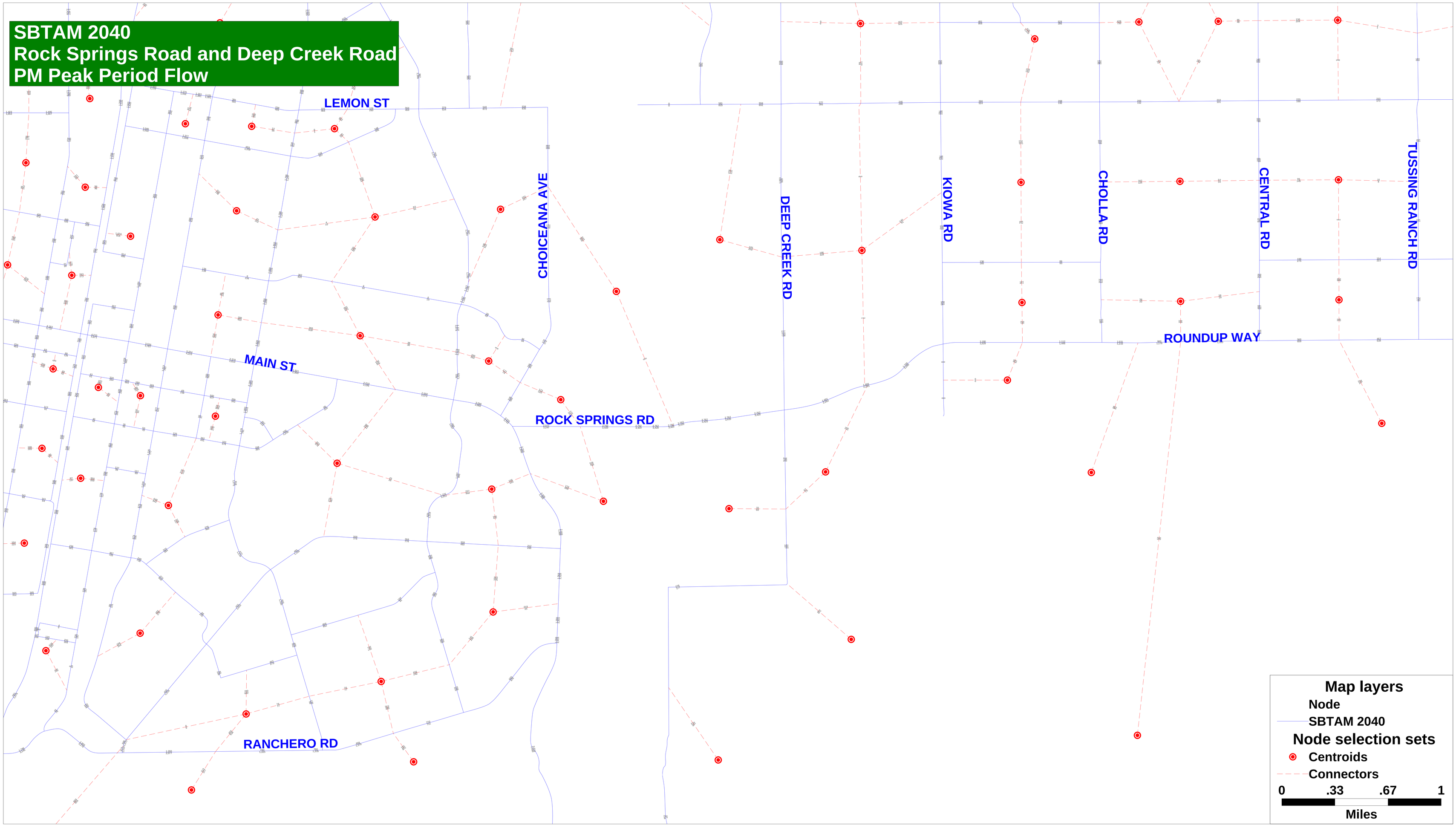
DAVID EVANS
AND ASSOCIATES INC.

Appendix A: SBTAM Plots

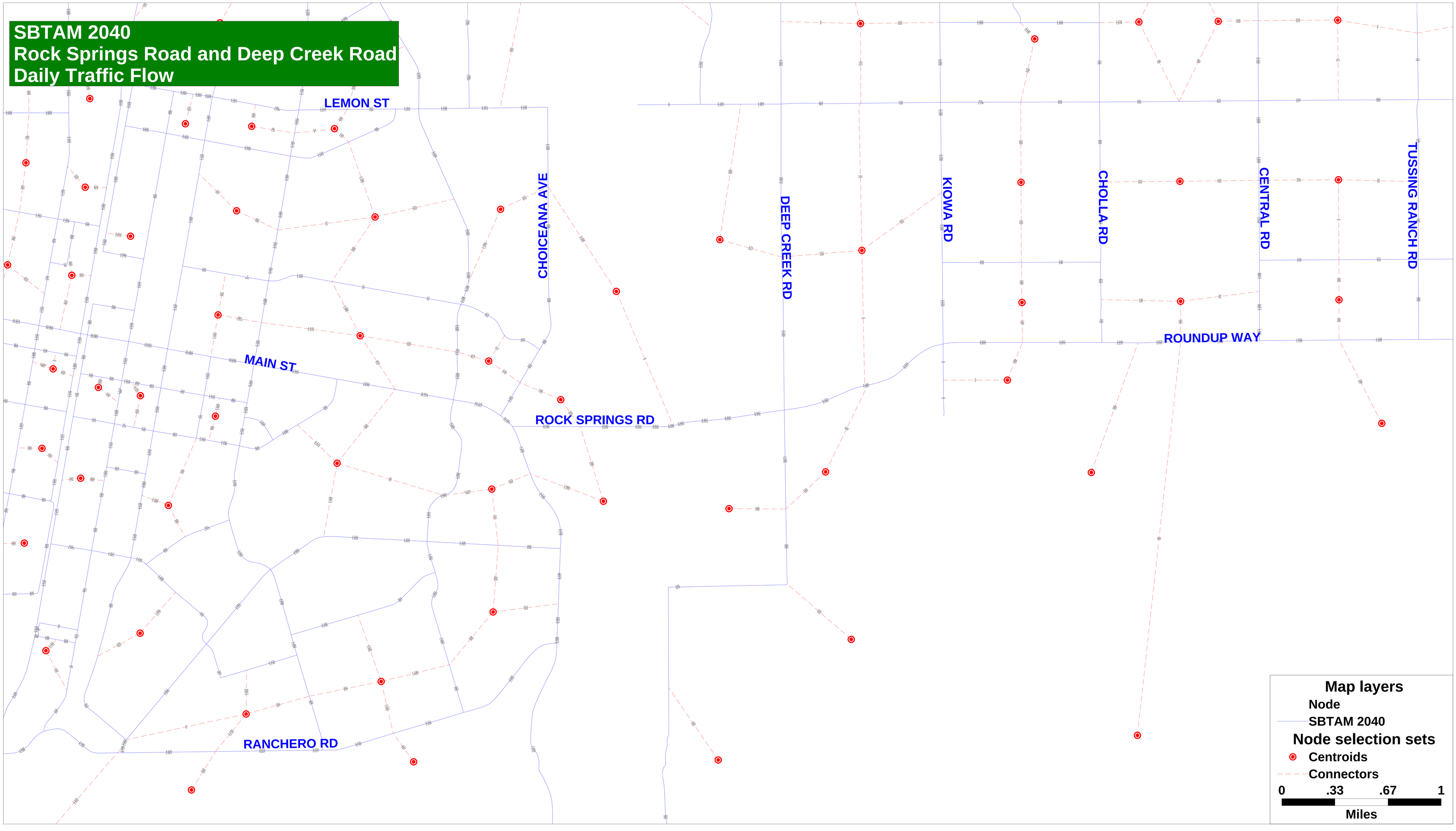
# SBTAM 2040
# Rock Springs Road and Deep Creek Road
# AM Peak Period Flow



# SBTAM 2040
# Rock Springs Road and Deep Creek Road
# PM Peak Period Flow



# SBTAM 2040
# Rock Springs Road and Deep Creek Road
# Daily Traffic Flow



DAVID EVANS
AND ASSOCIATES INC.

Appendix B: Intersection Capacity Analysis Calculations

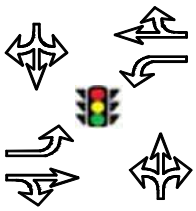
DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET OF |
|---|---|---|---|---|
| TURN MOVEMENTS | TNM | 5-Mar-19 | MMAI0000-1001 | 1 OF 2 |

E/W STREET : ROCKSPRINGS RD
N/S STREET : DEEP CREEK RD
CONDITION : AM PEAK HOUR

INTERSECTION : 1
PROJECTED GROWTH PER YEAR : 2%

# CONDITION DIAGRAMS



## EXISTING GEOMETRICS

## TURN MOVEMENTS

| Condition | Existing Condition Traffic | Ambient Growth | Background Condition Traffic | Project Trips | Project Condition Traffic | Future Year 2040 Condition Traffic | Future +Project Year 2040 Condition Traffic |
|---|---|---|---|---|---|---|---|
| Scenario # | 1 | | 3 | | 5 | 7 | 9 |
| **ROCKSPRINGS RD** | | | | | | | |
| EB LEFT | 120 | 5 | 125 | 0 | 125 | 130 | 130 |
| EB THRU | 245 | 5 | 250 | 0 | 250 | 300 | 300 |
| EB RIGHT | 15 | 5 | 20 | 0 | 20 | 40 | 40 |
| WB LEFT | 10 | 5 | 15 | 65 | 80 | 10 | 75 |
| WB THRU | 325 | 10 | 335 | -45 | 290 | 360 | 315 |
| WB RIGHT | 20 | 5 | 25 | 0 | 25 | 10 | 10 |
| **DEEP CREEK RD** | | | | | | | |
| NB LEFT | 20 | 5 | 25 | 65 | 90 | 140 | 205 |
| NB THRU | 25 | 5 | 30 | 20 | 50 | 60 | 80 |
| NB RIGHT | 15 | 5 | 20 | 20 | 40 | 40 | 60 |
| SB LEFT | 15 | 5 | 20 | 0 | 20 | 10 | 10 |
| SB THRU | 15 | 5 | 20 | 25 | 45 | 10 | 35 |
| SB RIGHT | 180 | 5 | 185 | -5 | 180 | 150 | 145 |
| **TOTALS** | **1005** | **65** | **1070** | **145** | **1215** | **1260** | **1405** |

DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET | OF |
|---|---|---|---|---|---|
| TURN VOLUME SUMMARY | TNM | 5-Mar-19 | MMAI0000-1001 | 2 | OF 2 |

E/W STREET : ROCKSPRINGS RD
CONDITION : AM PEAK HOUR
N/S STREET : DEEP CREEK RD
PHF : 0.88

NORTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 |
| 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 |

SOUTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EAST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

WEST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 |

| NORTH LEG | | | SOUTH LEG | | | EAST LEG | | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 33 | 1 | 0 | 4 | 4 | 3 | 4 | 77 | 0 | 0 | 55 | 24 |
| 46 | 6 | 2 | 2 | 6 | 8 | 5 | 75 | 2 | 3 | 71 | 36 |
| 45 | 2 | 4 | 3 | 6 | 4 | 5 | 88 | 3 | 1 | 75 | 27 |
| 46 | 2 | 5 | 1 | 2 | 3 | 4 | 73 | 1 | 6 | 39 | 29 |

| | TRUCK TOTAL | AUTO VOLUMES | TOTALS | ROUNDED TOTALS | TRUCK PERCENTAGE |
|---|---|---|---|---|---|
| **ROCKSPRINGS RD** | | | | | |
| EB LEFT | 3 | 116 | **119** | **120** | **5%** |
| EB THRU | 5 | 240 | **245** | **245** | **5%** |
| EB RIGHT | 2 | 10 | **12** | **15** | **15%** |
| WB LEFT | 1 | 6 | **7** | **10** | **15%** |
| WB THRU | 8 | 313 | **321** | **325** | **5%** |
| WB RIGHT | 1 | 18 | **19** | **20** | **5%** |
| **DEEP CREEK RD** | | | | | |
| NB LEFT | 1 | 18 | **19** | **20** | **5%** |
| NB THRU | 3 | 18 | **21** | **25** | **15%** |
| NB RIGHT | 4 | 10 | **14** | **15** | **30%** |
| SB LEFT | 1 | 11 | **12** | **15** | **10%** |
| SB THRU | 4 | 11 | **15** | **15** | **25%** |
| SB RIGHT | 7 | 170 | **177** | **180** | **5%** |

# INTERSECTION TURN COUNT

## PEAK HOUR

NORTH-SOUTH STREET: DEEP CREEK
EAST-WEST STREET: ROCK SPRINGS
JURISDICTION: APPLE VALLEY

DATE: 02-20-18

PEAK HOUR: 07:15AM

### NORTH LEG

TOTAL: 204

| Rt | Thru | Lt | |
|---|---|---|---|
| 177 | 15 | 12 | Total |
| 34 | 1 | 0 | 1st |
| 47 | 8 | 2 | 2nd |
| 49 | 2 | 5 | 3rd |
| 47 | 4 | 5 | 4th |

### EAST LEG TOTAL: 347

| | 1st | 2nd | 3rd | 4th | Total |
|---|---|---|---|---|---|
| Rt | 5 | 5 | 5 | 4 | 19 |
| Thru | 79 | 77 | 92 | 73 | 321 |
| Lt | 1 | 2 | 3 | 1 | 7 |

### WEST LEG TOTAL: 376

| Total | 1st | 2nd | 3rd | 4th | |
|---|---|---|---|---|---|
| 119 | 25 | 36 | 29 | 29 | Lt |
| 245 | 57 | 71 | 76 | 41 | Thru |
| 12 | 0 | 3 | 1 | 8 | Rt |

### PEAK HOUR FACTORS

NORTH LEG = 0.89
SOUTH LEG = 0.68
EAST LEG = 0.87
WEST LEG = 0.85

ALL LEGS = 0.88

### SOUTH LEG

TOTAL: 54

| | Lt | Thru | Rt |
|---|---|---|---|
| 1st | 3 | 4 | 5 |
| 2nd | 9 | 8 | 3 |
| 3rd | 4 | 7 | 5 |
| 4th | 3 | 2 | 1 |
| Total | 19 | 21 | 14 |

HOUR TOTAL: 981

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : DEEP CREEK
EAST-WEST STREET : ROCK SPRINGS

APPLE VALLEY
02-20-18

BEGINNING TIME : 07:00AM

| AUTOS RT | AUTOS THRU | AUTOS LT | LARGE 2 AXLE RT | LARGE 2 AXLE THRU | LARGE 2 AXLE LT | 3 AXLE RT | 3 AXLE THRU | 3 AXLE LT | 4(+) AXLE RT | 4(+) AXLE THRU | 4(+) AXLE LT | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NORTH LEG** | | | | | | | | | | | | |
| 29 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| 33 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 35 |
| 46 | 6 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 57 |
| 45 | 2 | 4 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 56 |
| 46 | 2 | 5 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 56 |
| 33 | 3 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 42 |
| 34 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 39 |
| 30 | 2 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 40 |
| 296 | 22 | 19 | 3 | 2 | 1 | 4 | 2 | 1 | 5 | 2 | 0 | 357 |
| **SOUTH LEG** | | | | | | | | | | | | |
| 2 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 9 |
| 4 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 2 | 6 | 8 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 20 |
| 3 | 6 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 16 |
| 1 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 2 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 2 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 11 |
| 2 | 5 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 14 |
| 18 | 31 | 34 | 4 | 2 | 2 | 0 | 2 | 0 | 0 | 4 | 0 | 97 |
| **EAST LEG** | | | | | | | | | | | | |
| 7 | 69 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79 |
| 4 | 77 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 85 |
| 5 | 75 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 84 |
| 5 | 88 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 100 |
| 4 | 73 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 3 | 67 | 4 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 77 |
| 2 | 73 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 81 |
| 2 | 82 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
| 32 | 604 | 13 | 1 | 9 | 1 | 0 | 6 | 0 | 0 | 3 | 0 | 669 |
| **WEST LEG** | | | | | | | | | | | | |
| 1 | 48 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 |
| 0 | 55 | 24 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 82 |
| 3 | 71 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110 |
| 1 | 75 | 27 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 106 |
| 6 | 39 | 29 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 78 |
| 4 | 35 | 32 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 72 |
| 3 | 40 | 28 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 75 |
| 0 | 51 | 24 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 79 |
| 18 | 414 | 220 | 0 | 3 | 2 | 2 | 1 | 4 | 1 | 5 | 1 | 671 |

Prepared by Newport Traffic Studies

# INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DEEP CREEK

EAST-WEST STREET: ROCK SPRINGS

TIME: 07:00AM-08:00AM DATE: 02-20-18

NORTH LEG

| Rt | Thru | Lt | |
|---|---|---|---|
| 159 | 14 | 7 | Total |
| 29 | 3 | 0 | 1st |
| 34 | 1 | 0 | 2nd |
| 47 | 8 | 2 | 3rd |
| 49 | 2 | 5 | 4th |

| | 1st | 2nd | 3rd | 4th | Total |
|---|---|---|---|---|---|
| Rt | 7 | 5 | 5 | 5 | 22 |
| Thru | 71 | 79 | 77 | 92 | 319 |
| Lt | 1 | 1 | 2 | 3 | 7 |

| Total | 1st | 2nd | 3rd | 4th | |
|---|---|---|---|---|---|
| 110 | 20 | 25 | 36 | 29 | Lt |
| 252 | 48 | 57 | 71 | 76 | Thru |
| 5 | 1 | 0 | 3 | 1 | Rt |

| | Lt | Thru | Rt |
|---|---|---|---|
| 1st | 2 | 5 | 2 |
| 2nd | 3 | 4 | 5 |
| 3rd | 9 | 8 | 3 |
| 4th | 4 | 7 | 5 |
| Total | 18 | 24 | 15 |

Prepared by NEWPORT TRAFFIC STUDIES

# INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DEEP CREEK

EAST-WEST STREET: ROCK SPRINGS

TIME: 08:00AM-09:00AM DATE: 02-20-18

NORTH LEG

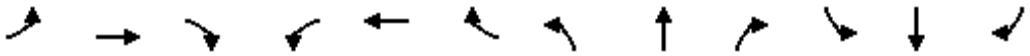
| Rt | Thru | Lt | |
|---|---|---|---|
| 149 | 14 | 14 | Total |
| 47 | 4 | 5 | 1st |
| 34 | 4 | 4 | 2nd |
| 35 | 3 | 1 | 3rd |
| 33 | 3 | 4 | 4th |

| | 1st | 2nd | 3rd | 4th | Total |
|---|---|---|---|---|---|
| Rt | 4 | 3 | 2 | 2 | 11 |
| Thru | 73 | 70 | 77 | 83 | 303 |
| Lt | 1 | 4 | 2 | 0 | 7 |

| Total | 1st | 2nd | 3rd | 4th | |
|---|---|---|---|---|---|
| 117 | 29 | 32 | 30 | 26 | Lt |
| 171 | 41 | 35 | 42 | 53 | Thru |
| 16 | 8 | 5 | 3 | 0 | Rt |

| | Lt | Thru | Rt |
|---|---|---|---|
| 1st | 3 | 2 | 1 |
| 2nd | 5 | 2 | 2 |
| 3rd | 4 | 5 | 2 |
| 4th | 6 | 6 | 2 |
| Total | 18 | 15 | 7 |

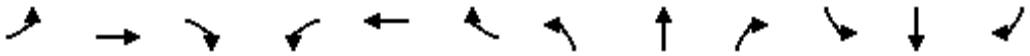
Prepared by NEWPORT TRAFFIC STUDIES



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 120 | 245 | 15 | 10 | 325 | 20 | 20 | 25 | 15 | 15 | 15 | 180 |
| Future Volume (veh/h) | 120 | 245 | 15 | 10 | 325 | 20 | 20 | 25 | 15 | 15 | 15 | 180 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1678 | 1826 | 1826 | 1678 | 1678 | 1678 | 1530 | 1530 | 1530 |
| Adj Flow Rate, veh/h | 136 | 278 | 17 | 11 | 369 | 23 | 23 | 28 | 17 | 17 | 17 | 205 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 15 | 5 | 5 | 15 | 15 | 15 | 25 | 25 | 25 |
| Cap, veh/h | 173 | 661 | 40 | 18 | 510 | 32 | 194 | 190 | 88 | 106 | 32 | 253 |
| Arrive On Green | 0.10 | 0.39 | 0.39 | 0.01 | 0.30 | 0.30 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1739 | 1703 | 104 | 1598 | 1701 | 106 | 329 | 842 | 390 | 44 | 142 | 1124 |
| Grp Volume(v), veh/h | 136 | 0 | 295 | 11 | 0 | 392 | 68 | 0 | 0 | 239 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1807 | 1598 | 0 | 1807 | 1560 | 0 | 0 | 1311 | 0 | 0 |
| Q Serve(g_s), s | 3.1 | 0.0 | 4.8 | 0.3 | 0.0 | 7.8 | 0.0 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.1 | 0.0 | 4.8 | 0.3 | 0.0 | 7.8 | 1.4 | 0.0 | 0.0 | 6.9 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.06 | 1.00 | | 0.06 | 0.34 | | 0.25 | 0.07 | | 0.86 |
| Lane Grp Cap(c), veh/h | 173 | 0 | 701 | 18 | 0 | 542 | 472 | 0 | 0 | 391 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.42 | 0.60 | 0.00 | 0.72 | 0.14 | 0.00 | 0.00 | 0.61 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 304 | 0 | 995 | 160 | 0 | 859 | 472 | 0 | 0 | 391 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.6 | 0.0 | 8.9 | 19.7 | 0.0 | 12.5 | 12.5 | 0.0 | 0.0 | 14.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 7.6 | 0.0 | 0.4 | 27.4 | 0.0 | 1.8 | 0.6 | 0.0 | 0.0 | 6.9 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 0.0 | 1.3 | 0.2 | 0.0 | 2.5 | 0.4 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 25.2 | 0.0 | 9.3 | 47.0 | 0.0 | 14.4 | 13.2 | 0.0 | 0.0 | 21.6 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | D | A | B | B | A | A | C | A | A |
| Approach Vol, veh/h | | 431 | | | 403 | | | 68 | | | 239 | |
| Approach Delay, s/veh | | 14.3 | | | 15.2 | | | 13.2 | | | 21.6 | |
| Approach LOS | | B | | | B | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.5 | 20.5 | | 14.0 | 9.0 | 17.0 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 7.0 | 19.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 6.8 | | 8.9 | 5.1 | 9.8 | | 3.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.4 | | 0.0 | 0.1 | 1.5 | | 0.1 | | | | |

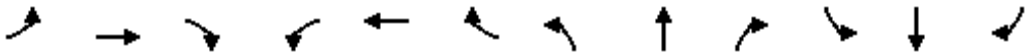
| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | | 16.1 |
| HCM 6th LOS | | B |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 125 | 250 | 20 | 15 | 335 | 25 | 25 | 30 | 20 | 20 | 20 | 185 |
| Future Volume (veh/h) | 125 | 250 | 20 | 15 | 335 | 25 | 25 | 30 | 20 | 20 | 20 | 185 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1678 | 1826 | 1826 | 1678 | 1678 | 1678 | 1530 | 1530 | 1530 |
| Adj Flow Rate, veh/h | 142 | 284 | 23 | 17 | 381 | 28 | 28 | 34 | 23 | 23 | 23 | 210 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 15 | 5 | 5 | 15 | 15 | 15 | 25 | 25 | 25 |
| Cap, veh/h | 181 | 642 | 52 | 27 | 502 | 37 | 190 | 184 | 94 | 111 | 39 | 241 |
| Arrive On Green | 0.10 | 0.39 | 0.39 | 0.02 | 0.30 | 0.30 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1739 | 1667 | 135 | 1598 | 1680 | 123 | 314 | 822 | 422 | 61 | 174 | 1076 |
| Grp Volume(v), veh/h | 142 | 0 | 307 | 17 | 0 | 409 | 85 | 0 | 0 | 256 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1802 | 1598 | 0 | 1804 | 1558 | 0 | 0 | 1312 | 0 | 0 |
| Q Serve(g_s), s | 3.2 | 0.0 | 5.1 | 0.4 | 0.0 | 8.3 | 0.0 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.2 | 0.0 | 5.1 | 0.4 | 0.0 | 8.3 | 1.7 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.07 | 0.33 | | 0.27 | 0.09 | | 0.82 |
| Lane Grp Cap(c), veh/h | 181 | 0 | 694 | 27 | 0 | 539 | 468 | 0 | 0 | 392 | 0 | 0 |
| V/C Ratio(X) | 0.78 | 0.00 | 0.44 | 0.62 | 0.00 | 0.76 | 0.18 | 0.00 | 0.00 | 0.65 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 303 | 0 | 987 | 159 | 0 | 853 | 468 | 0 | 0 | 392 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.6 | 0.0 | 9.1 | 19.6 | 0.0 | 12.8 | 12.8 | 0.0 | 0.0 | 15.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 7.3 | 0.0 | 0.4 | 20.5 | 0.0 | 2.2 | 0.9 | 0.0 | 0.0 | 8.2 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.0 | 1.4 | 0.3 | 0.0 | 2.7 | 0.5 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 24.9 | 0.0 | 9.6 | 40.1 | 0.0 | 15.0 | 13.6 | 0.0 | 0.0 | 23.2 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | D | A | B | B | A | A | C | A | A |
| Approach Vol, veh/h | | 449 | | | 426 | | | 85 | | | 256 | |
| Approach Delay, s/veh | | 14.4 | | | 16.0 | | | 13.6 | | | 23.2 | |
| Approach LOS | | B | | | B | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.7 | 20.5 | | 14.0 | 9.2 | 17.0 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 7.0 | 19.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | 7.1 | | 9.5 | 5.2 | 10.3 | | 3.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.4 | | 0.0 | 0.1 | 1.5 | | 0.1 | | | | |

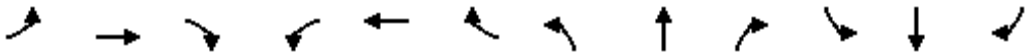
| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 16.8 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 125 | 250 | 20 | 80 | 290 | 25 | 90 | 50 | 40 | 20 | 45 | 180 |
| Future Volume (veh/h) | 125 | 250 | 20 | 80 | 290 | 25 | 90 | 50 | 40 | 20 | 45 | 180 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1678 | 1826 | 1826 | 1678 | 1678 | 1678 | 1530 | 1530 | 1530 |
| Adj Flow Rate, veh/h | 142 | 284 | 23 | 91 | 330 | 28 | 102 | 57 | 45 | 23 | 51 | 205 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 15 | 5 | 5 | 15 | 15 | 15 | 25 | 25 | 25 |
| Cap, veh/h | 181 | 558 | 45 | 108 | 496 | 42 | 248 | 112 | 64 | 110 | 68 | 224 |
| Arrive On Green | 0.10 | 0.33 | 0.33 | 0.07 | 0.30 | 0.30 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1739 | 1667 | 135 | 1598 | 1660 | 141 | 509 | 500 | 285 | 60 | 301 | 1000 |
| Grp Volume(v), veh/h | 142 | 0 | 307 | 91 | 0 | 358 | 204 | 0 | 0 | 279 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1802 | 1598 | 0 | 1801 | 1294 | 0 | 0 | 1361 | 0 | 0 |
| Q Serve(g_s), s | 3.2 | 0.0 | 5.5 | 2.3 | 0.0 | 7.0 | 0.0 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.2 | 0.0 | 5.5 | 2.3 | 0.0 | 7.0 | 5.6 | 0.0 | 0.0 | 8.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.08 | 0.50 | | 0.22 | 0.08 | | 0.73 |
| Lane Grp Cap(c), veh/h | 181 | 0 | 604 | 108 | 0 | 538 | 424 | 0 | 0 | 402 | 0 | 0 |
| V/C Ratio(X) | 0.78 | 0.00 | 0.51 | 0.84 | 0.00 | 0.67 | 0.48 | 0.00 | 0.00 | 0.69 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 303 | 0 | 987 | 159 | 0 | 851 | 424 | 0 | 0 | 402 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.6 | 0.0 | 10.7 | 18.5 | 0.0 | 12.3 | 14.1 | 0.0 | 0.0 | 15.2 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 7.3 | 0.0 | 0.7 | 22.2 | 0.0 | 1.4 | 3.9 | 0.0 | 0.0 | 9.5 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.0 | 1.6 | 1.3 | 0.0 | 2.2 | 1.6 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 24.9 | 0.0 | 11.4 | 40.7 | 0.0 | 13.8 | 18.0 | 0.0 | 0.0 | 24.7 | 0.0 | 0.0 |
| LnGrp LOS | C | A | B | D | A | B | B | A | A | C | A | A |
| Approach Vol, veh/h | | 449 | | | 449 | | | 204 | | | 279 | |
| Approach Delay, s/veh | | 15.6 | | | 19.2 | | | 18.0 | | | 24.7 | |
| Approach LOS | | B | | | B | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.7 | 18.5 | | 14.0 | 9.2 | 17.0 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 7.0 | 19.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.3 | 7.5 | | 10.0 | 5.2 | 9.0 | | 7.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.4 | | 0.0 | 0.1 | 1.4 | | 0.1 | | | | |

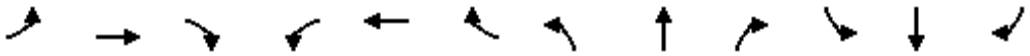
| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 19.0 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 130 | 300 | 40 | 10 | 360 | 10 | 140 | 60 | 40 | 10 | 10 | 150 |
| Future Volume (veh/h) | 130 | 300 | 40 | 10 | 360 | 10 | 140 | 60 | 40 | 10 | 10 | 150 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1678 | 1826 | 1826 | 1678 | 1678 | 1678 | 1530 | 1530 | 1530 |
| Adj Flow Rate, veh/h | 148 | 341 | 45 | 11 | 409 | 11 | 159 | 68 | 45 | 11 | 11 | 170 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 15 | 5 | 5 | 15 | 15 | 15 | 25 | 25 | 25 |
| Cap, veh/h | 189 | 624 | 82 | 18 | 528 | 14 | 304 | 90 | 50 | 102 | 27 | 270 |
| Arrive On Green | 0.11 | 0.40 | 0.40 | 0.01 | 0.30 | 0.30 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1739 | 1580 | 208 | 1598 | 1770 | 48 | 733 | 405 | 226 | 35 | 122 | 1216 |
| Grp Volume(v), veh/h | 148 | 0 | 386 | 11 | 0 | 420 | 272 | 0 | 0 | 192 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1788 | 1598 | 0 | 1817 | 1365 | 0 | 0 | 1373 | 0 | 0 |
| Q Serve(g_s), s | 3.4 | 0.0 | 6.7 | 0.3 | 0.0 | 8.5 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.4 | 0.0 | 6.7 | 0.3 | 0.0 | 8.5 | 7.7 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.12 | 1.00 | | 0.03 | 0.58 | | 0.17 | 0.06 | | 0.89 |
| Lane Grp Cap(c), veh/h | 189 | 0 | 707 | 18 | 0 | 542 | 445 | 0 | 0 | 400 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.55 | 0.60 | 0.00 | 0.77 | 0.61 | 0.00 | 0.00 | 0.48 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 301 | 0 | 973 | 158 | 0 | 854 | 445 | 0 | 0 | 400 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.6 | 0.0 | 9.4 | 19.9 | 0.0 | 13.0 | 15.1 | 0.0 | 0.0 | 14.3 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 7.0 | 0.0 | 0.7 | 27.4 | 0.0 | 2.4 | 6.2 | 0.0 | 0.0 | 4.1 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.0 | 1.8 | 0.2 | 0.0 | 2.8 | 2.3 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 24.6 | 0.0 | 10.1 | 47.3 | 0.0 | 15.4 | 21.2 | 0.0 | 0.0 | 18.4 | 0.0 | 0.0 |
| LnGrp LOS | C | A | B | D | A | B | C | A | A | B | A | A |
| Approach Vol, veh/h | | 534 | | | 431 | | | 272 | | | 192 | |
| Approach Delay, s/veh | | 14.1 | | | 16.2 | | | 21.2 | | | 18.4 | |
| Approach LOS | | B | | | B | | | C | | | B | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.5 | 21.0 | | 14.0 | 9.4 | 17.1 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 7.0 | 19.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 8.7 | | 7.3 | 5.4 | 10.5 | | 9.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.8 | | 0.1 | 0.1 | 1.5 | | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.7 |
| HCM 6th LOS | B |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 130 | 300 | 40 | 75 | 315 | 10 | 205 | 80 | 60 | 10 | 35 | 145 |
| Future Volume (veh/h) | 130 | 300 | 40 | 75 | 315 | 10 | 205 | 80 | 60 | 10 | 35 | 145 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1678 | 1826 | 1826 | 1678 | 1678 | 1678 | 1530 | 1530 | 1530 |
| Adj Flow Rate, veh/h | 148 | 341 | 45 | 85 | 358 | 11 | 233 | 91 | 68 | 11 | 40 | 165 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 15 | 5 | 5 | 15 | 15 | 15 | 25 | 25 | 25 |
| Cap, veh/h | 189 | 542 | 71 | 100 | 524 | 16 | 305 | 63 | 47 | 101 | 67 | 242 |
| Arrive On Green | 0.11 | 0.34 | 0.34 | 0.06 | 0.30 | 0.30 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1739 | 1580 | 208 | 1598 | 1762 | 54 | 729 | 285 | 213 | 33 | 303 | 1086 |
| Grp Volume(v), veh/h | 148 | 0 | 386 | 85 | 0 | 369 | 392 | 0 | 0 | 216 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1788 | 1598 | 0 | 1816 | 1226 | 0 | 0 | 1422 | 0 | 0 |
| Q Serve(g_s), s | 3.3 | 0.0 | 7.3 | 2.1 | 0.0 | 7.2 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.3 | 0.0 | 7.3 | 2.1 | 0.0 | 7.2 | 9.0 | 0.0 | 0.0 | 5.9 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.12 | 1.00 | | 0.03 | 0.59 | | 0.17 | 0.05 | | 0.76 |
| Lane Grp Cap(c), veh/h | 189 | 0 | 613 | 100 | 0 | 540 | 415 | 0 | 0 | 411 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.63 | 0.85 | 0.00 | 0.68 | 0.94 | 0.00 | 0.00 | 0.53 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 301 | 0 | 974 | 158 | 0 | 855 | 415 | 0 | 0 | 411 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.5 | 0.0 | 11.1 | 18.7 | 0.0 | 12.5 | 17.0 | 0.0 | 0.0 | 14.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 7.0 | 0.0 | 1.1 | 20.9 | 0.0 | 1.5 | 32.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.0 | 2.2 | 1.2 | 0.0 | 2.3 | 6.4 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 24.6 | 0.0 | 12.2 | 39.6 | 0.0 | 14.1 | 49.1 | 0.0 | 0.0 | 19.3 | 0.0 | 0.0 |
| LnGrp LOS | C | A | B | D | A | B | D | A | A | B | A | A |
| Approach Vol, veh/h | | 534 | | | 454 | | | 392 | | | 216 | |
| Approach Delay, s/veh | | 15.6 | | | 18.8 | | | 49.1 | | | 19.3 | |
| Approach LOS | | B | | | B | | | D | | | B | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.5 | 18.8 | | 14.0 | 9.4 | 17.0 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 7.0 | 19.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.1 | 9.3 | | 7.9 | 5.3 | 9.2 | | 11.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.8 | | 0.1 | 0.1 | 1.4 | | 0.0 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 25.2 |
| HCM 6th LOS | | | C |

DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET OF |
|---|---|---|---|---|
| TURN MOVEMENTS | TNM | 5-Mar-19 | MMAI0000-1001 | 1 OF 2 |

E/W STREET : ROCKSPRINGS RD
N/S STREET : DEEP CREEK RD
CONDITION : PM PEAK HOUR

INTERSECTION : 1
PROJECTED GROWTH PER YEAR : 2%

## TURN MOVEMENTS

| Condition | Existing Condition Traffic | Ambient Growth | Background Condition Traffic | Project Trips | Project Condition Traffic | Future Year 2040 Condition Traffic | Future +Project Year 2040 Condition Traffic |
|---|---|---|---|---|---|---|---|
| Scenario # | 2 | | 4 | | 6 | 8 | 10 |
| **ROCKSPRINGS RD** | | | | | | | |
| EB LEFT | 190 | 5 | 195 | -30 | 165 | 180 | 150 |
| EB THRU | 360 | 10 | 370 | -10 | 360 | 490 | 480 |
| EB RIGHT | 40 | 5 | 45 | 0 | 45 | 40 | 40 |
| WB LEFT | 25 | 5 | 30 | 15 | 45 | 40 | 55 |
| WB THRU | 280 | 10 | 290 | 5 | 295 | 420 | 425 |
| WB RIGHT | 25 | 5 | 30 | 0 | 30 | 30 | 30 |
| **DEEP CREEK RD** | | | | | | | |
| NB LEFT | 30 | 5 | 35 | 10 | 45 | 40 | 50 |
| NB THRU | 40 | 5 | 45 | 50 | 95 | 40 | 90 |
| NB RIGHT | 15 | 5 | 20 | 30 | 50 | 20 | 50 |
| SB LEFT | 25 | 5 | 30 | 0 | 30 | 50 | 50 |
| SB THRU | 25 | 5 | 30 | 15 | 45 | 40 | 55 |
| SB RIGHT | 155 | 5 | 160 | 5 | 165 | 230 | 235 |
| **TOTALS** | **1210** | **70** | **1280** | **90** | **1370** | **1620** | **1710** |

DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET OF |
|---|---|---|---|---|
| TURN VOLUME SUMMARY | TNM | 5-Mar-19 | MMAI0000-1001 | 2 OF 2 |

E/W STREET : ROCKSPRINGS RD
N/S STREET : DEEP CREEK RD
CONDITION : PM PEAK HOUR
PHF : 0.92

NORTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

SOUTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EAST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

WEST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| NORTH LEG | | | SOUTH LEG | | | EAST LEG | | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 31 | 3 | 5 | 1 | 9 | 10 | 5 | 57 | 4 | 4 | 86 | 47 |
| 37 | 7 | 7 | 5 | 7 | 7 | 5 | 71 | 5 | 11 | 96 | 55 |
| 42 | 3 | 6 | 3 | 10 | 6 | 5 | 74 | 6 | 10 | 83 | 50 |
| 40 | 6 | 3 | 1 | 9 | 5 | 5 | 66 | 5 | 8 | 88 | 36 |

| | TRUCK TOTAL | AUTO VOLUMES | TOTALS | ROUNDED TOTALS | TRUCK PERCENTAGE |
|---|---|---|---|---|---|
| **ROCKSPRINGS RD** | | | | | |
| EB LEFT | 0 | 188 | **188** | **190** | **5%** |
| EB THRU | 5 | 353 | **358** | **360** | **5%** |
| EB RIGHT | 3 | 33 | **36** | **40** | **10%** |
| WB LEFT | 1 | 20 | **21** | **25** | **5%** |
| WB THRU | 8 | 268 | **276** | **280** | **5%** |
| WB RIGHT | 1 | 20 | **21** | **25** | **5%** |
| **DEEP CREEK RD** | | | | | |
| NB LEFT | 0 | 28 | **28** | **30** | **5%** |
| NB THRU | 5 | 35 | **40** | **40** | **15%** |
| NB RIGHT | 3 | 10 | **13** | **15** | **25%** |
| SB LEFT | 0 | 21 | **21** | **25** | **5%** |
| SB THRU | 4 | 19 | **23** | **25** | **15%** |
| SB RIGHT | 1 | 150 | **151** | **155** | **5%** |

# INTERSECTION TURN COUNT

## PEAK HOUR

NORTH-SOUTH STREET: DEEP CREEK
EAST-WEST STREET: ROCK SPRINGS
JURISDICTION: APPLE VALLEY

DATE: 02-20-18

PEAK HOUR: 04:30PM

### NORTH LEG

TOTAL: 195

| Rt | Thru | Lt | |
|---|---|---|---|
| 151 | 23 | 21 | Total |
| 31 | 4 | 5 | 1st |
| 38 | 8 | 7 | 2nd |
| 42 | 5 | 6 | 3rd |
| 40 | 6 | 3 | 4th |

### EAST LEG TOTAL: 318

| | 1st | 2nd | 3rd | 4th | Total |
|---|---|---|---|---|---|
| Rt | 5 | 6 | 5 | 5 | 21 |
| Thru | 58 | 73 | 77 | 68 | 276 |
| Lt | 5 | 5 | 6 | 5 | 21 |

### WEST LEG TOTAL: 582

| Total | 1st | 2nd | 3rd | 4th | |
|---|---|---|---|---|---|
| 188 | 47 | 55 | 50 | 36 | Lt |
| 358 | 88 | 96 | 86 | 88 | Thru |
| 36 | 5 | 11 | 12 | 8 | Rt |

### PEAK HOUR FACTORS

NORTH LEG = 0.92
SOUTH LEG = 0.96
EAST LEG = 0.90
WEST LEG = 0.90

ALL LEGS = 0.92

### SOUTH LEG

TOTAL: 81

| | Lt | Thru | Rt |
|---|---|---|---|
| 1st | 10 | 9 | 2 |
| 2nd | 7 | 9 | 5 |
| 3rd | 6 | 12 | 3 |
| 4th | 5 | 10 | 3 |
| Total | 28 | 40 | 13 |

HOUR TOTAL: 1,176

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : DEEP CREEK
EAST-WEST STREET : ROCK SPRINGS
BEGINNING TIME : 04:00PM

APPLE VALLEY
02-20-18

| AUTOS RT | AUTOS THRU | AUTOS LT | LARGE 2 AXLE RT | LARGE 2 AXLE THRU | LARGE 2 AXLE LT | 3 AXLE RT | 3 AXLE THRU | 3 AXLE LT | 4(+) AXLE RT | 4(+) AXLE THRU | 4(+) AXLE LT | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NORTH LEG** | | | | | | | | | | | | |
| 26 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 23 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 28 |
| 31 | 3 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 37 | 7 | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 53 |
| 42 | 3 | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 |
| 40 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| 43 | 1 | 2 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 49 |
| 39 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 47 |
| 281 | 27 | 32 | 0 | 3 | 1 | 1 | 3 | 0 | 1 | 1 | 0 | 350 |
| **SOUTH LEG** | | | | | | | | | | | | |
| 2 | 2 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 1 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 |
| 1 | 9 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| 5 | 7 | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 21 |
| 3 | 10 | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 21 |
| 1 | 9 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 5 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 2 | 3 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 9 |
| 20 | 52 | 40 | 3 | 3 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 123 |
| **EAST LEG** | | | | | | | | | | | | |
| 6 | 41 | 3 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 53 |
| 9 | 59 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 |
| 5 | 57 | 4 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 68 |
| 5 | 71 | 5 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 84 |
| 5 | 74 | 6 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 |
| 5 | 66 | 5 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 78 |
| 2 | 66 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| 1 | 55 | 3 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 64 |
| 38 | 489 | 40 | 1 | 9 | 2 | 0 | 4 | 0 | 0 | 4 | 0 | 587 |
| **WEST LEG** | | | | | | | | | | | | |
| 5 | 59 | 32 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 97 |
| 7 | 71 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 137 |
| 4 | 86 | 47 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 140 |
| 11 | 96 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 162 |
| 10 | 83 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 148 |
| 8 | 88 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132 |
| 7 | 68 | 27 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103 |
| 5 | 62 | 28 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 97 |
| 57 | 613 | 333 | 0 | 2 | 3 | 0 | 1 | 0 | 3 | 4 | 0 | 1016 |

Prepared by Newport Traffic Studies

# INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DEEP CREEK

EAST-WEST STREET: ROCK SPRINGS

TIME: 04:00PM-05:00PM DATE: 02-20-18

NORTH LEG

| | | | |
|---|---|---|---|
| 118 | 14 | 20 | Total |
| 26 | 2 | 3 | 1st |
| 23 | 0 | 5 | 2nd |
| 31 | 4 | 5 | 3rd |
| 38 | 8 | 7 | 4th |
| Rt | Thru | Lt | |

| | | | | | |
|---|---|---|---|---|---|
| Rt | 6 | 9 | 5 | 6 | 26 |
| Thru | 44 | 61 | 58 | 73 | 236 |
| Lt | 3 | 7 | 5 | 5 | 20 |
| | 1st | 2nd | 3rd | 4th | Total |

| Total | 1st | 2nd | 3rd | 4th | |
|---|---|---|---|---|---|
| 193 | 33 | 58 | 47 | 55 | Lt |
| 315 | 59 | 72 | 88 | 96 | Thru |
| 28 | 5 | 7 | 5 | 11 | Rt |

| | Lt | Thru | Rt |
|---|---|---|---|
| 1st | 3 | 3 | 2 |
| 2nd | 3 | 5 | 1 |
| 3rd | 10 | 9 | 2 |
| 4th | 7 | 9 | 5 |
| Total | 23 | 26 | 10 |

Prepared by NEWPORT TRAFFIC STUDIES

# INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DEEP CREEK

EAST-WEST STREET: ROCK SPRINGS

TIME: 05:00PM-06:00PM DATE: 02-20-18

NORTH LEG

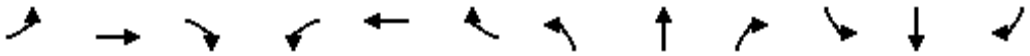
| | | | |
|---|---|---|---|
| 165 | 20 | 13 | Total |
| 42 | 5 | 6 | 1st |
| 40 | 6 | 3 | 2nd |
| 44 | 3 | 2 | 3rd |
| 39 | 6 | 2 | 4th |
| Rt | Thru | Lt | |

| | | | | | |
|---|---|---|---|---|---|
| Rt | 5 | 5 | 2 | 1 | 13 |
| Thru | 77 | 68 | 66 | 59 | 270 |
| Lt | 6 | 5 | 7 | 4 | 22 |
| | 1st | 2nd | 3rd | 4th | Total |

| Total | 1st | 2nd | 3rd | 4th | |
|---|---|---|---|---|---|
| 143 | 50 | 36 | 27 | 30 | Lt |
| 305 | 86 | 88 | 69 | 62 | Thru |
| 32 | 12 | 8 | 7 | 5 | Rt |

| | Lt | Thru | Rt |
|---|---|---|---|
| 1st | 6 | 12 | 3 |
| 2nd | 5 | 10 | 3 |
| 3rd | 3 | 8 | 5 |
| 4th | 3 | 4 | 2 |
| Total | 17 | 34 | 13 |

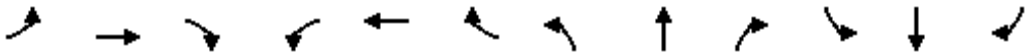
Prepared by NEWPORT TRAFFIC STUDIES



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 190 | 360 | 40 | 25 | 280 | 25 | 30 | 40 | 15 | 25 | 25 | 155 |
| Future Volume (veh/h) | 190 | 360 | 40 | 25 | 280 | 25 | 30 | 40 | 15 | 25 | 25 | 155 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1826 | 1826 | 1826 | 1678 | 1678 | 1678 | 1678 | 1678 | 1678 |
| Adj Flow Rate, veh/h | 207 | 391 | 43 | 27 | 304 | 27 | 33 | 43 | 16 | 27 | 27 | 168 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 5 | 5 | 5 | 15 | 15 | 15 | 15 | 15 | 15 |
| Cap, veh/h | 263 | 660 | 73 | 45 | 468 | 42 | 190 | 196 | 57 | 116 | 54 | 232 |
| Arrive On Green | 0.15 | 0.41 | 0.41 | 0.03 | 0.28 | 0.28 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1739 | 1616 | 178 | 1739 | 1653 | 147 | 353 | 922 | 268 | 97 | 254 | 1092 |
| Grp Volume(v), veh/h | 207 | 0 | 434 | 27 | 0 | 331 | 92 | 0 | 0 | 222 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1794 | 1739 | 0 | 1799 | 1544 | 0 | 0 | 1443 | 0 | 0 |
| Q Serve(g_s), s | 4.9 | 0.0 | 8.0 | 0.7 | 0.0 | 6.9 | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 4.9 | 0.0 | 8.0 | 0.7 | 0.0 | 6.9 | 2.0 | 0.0 | 0.0 | 6.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.10 | 1.00 | | 0.08 | 0.36 | | 0.17 | 0.12 | | 0.76 |
| Lane Grp Cap(c), veh/h | 263 | 0 | 733 | 45 | 0 | 509 | 443 | 0 | 0 | 401 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.59 | 0.60 | 0.00 | 0.65 | 0.21 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 410 | 0 | 930 | 164 | 0 | 679 | 443 | 0 | 0 | 401 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.3 | 0.0 | 9.8 | 20.4 | 0.0 | 13.4 | 14.0 | 0.0 | 0.0 | 15.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.4 | 0.0 | 0.8 | 12.4 | 0.0 | 1.4 | 1.1 | 0.0 | 0.0 | 5.4 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.9 | 0.0 | 2.2 | 0.4 | 0.0 | 2.3 | 0.6 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 22.7 | 0.0 | 10.6 | 32.9 | 0.0 | 14.8 | 15.0 | 0.0 | 0.0 | 20.9 | 0.0 | 0.0 |
| LnGrp LOS | C | A | B | C | A | B | B | A | A | C | A | A |
| Approach Vol, veh/h | | 641 | | | 358 | | | 92 | | | 222 | |
| Approach Delay, s/veh | | 14.5 | | | 16.1 | | | 15.0 | | | 20.9 | |
| Approach LOS | | B | | | B | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.1 | 22.3 | | 14.0 | 11.4 | 17.0 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 10.0 | 16.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.7 | 10.0 | | 8.0 | 6.9 | 8.9 | | 4.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | | 0.1 | 0.2 | 1.0 | | 0.1 | | | | |

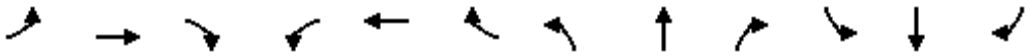
| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | | 16.1 |
| HCM 6th LOS | | B |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 195 | 370 | 45 | 30 | 290 | 30 | 35 | 45 | 20 | 30 | 30 | 160 |
| Future Volume (veh/h) | 195 | 370 | 45 | 30 | 290 | 30 | 35 | 45 | 20 | 30 | 30 | 160 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1826 | 1826 | 1826 | 1678 | 1678 | 1678 | 1678 | 1678 | 1678 |
| Adj Flow Rate, veh/h | 212 | 402 | 49 | 33 | 315 | 33 | 38 | 49 | 22 | 33 | 33 | 174 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 5 | 5 | 5 | 15 | 15 | 15 | 15 | 15 | 15 |
| Cap, veh/h | 269 | 648 | 79 | 53 | 458 | 48 | 187 | 191 | 67 | 121 | 59 | 221 |
| Arrive On Green | 0.15 | 0.41 | 0.41 | 0.03 | 0.28 | 0.28 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1739 | 1596 | 195 | 1739 | 1625 | 170 | 344 | 902 | 315 | 117 | 280 | 1045 |
| Grp Volume(v), veh/h | 212 | 0 | 451 | 33 | 0 | 348 | 109 | 0 | 0 | 240 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1791 | 1739 | 0 | 1795 | 1560 | 0 | 0 | 1442 | 0 | 0 |
| Q Serve(g_s), s | 5.0 | 0.0 | 8.5 | 0.8 | 0.0 | 7.4 | 0.0 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.0 | 0.0 | 8.5 | 0.8 | 0.0 | 7.4 | 2.4 | 0.0 | 0.0 | 6.6 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.11 | 1.00 | | 0.09 | 0.35 | | 0.20 | 0.14 | | 0.72 |
| Lane Grp Cap(c), veh/h | 269 | 0 | 727 | 53 | 0 | 506 | 444 | 0 | 0 | 401 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.62 | 0.63 | 0.00 | 0.69 | 0.25 | 0.00 | 0.00 | 0.60 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 408 | 0 | 925 | 163 | 0 | 675 | 444 | 0 | 0 | 401 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.3 | 0.0 | 10.0 | 20.4 | 0.0 | 13.6 | 14.2 | 0.0 | 0.0 | 15.8 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.8 | 0.0 | 0.9 | 11.5 | 0.0 | 1.9 | 1.3 | 0.0 | 0.0 | 6.5 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 0.0 | 2.4 | 0.4 | 0.0 | 2.5 | 0.8 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.1 | 0.0 | 10.9 | 31.9 | 0.0 | 15.5 | 15.5 | 0.0 | 0.0 | 22.3 | 0.0 | 0.0 |
| LnGrp LOS | C | A | B | C | A | B | B | A | A | C | A | A |
| Approach Vol, veh/h | | 663 | | | 381 | | | 109 | | | 240 | |
| Approach Delay, s/veh | | 14.8 | | | 16.9 | | | 15.5 | | | 22.3 | |
| Approach LOS | | B | | | B | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.3 | 22.3 | | 14.0 | 11.6 | 17.0 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 10.0 | 16.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.8 | 10.5 | | 8.6 | 7.0 | 9.4 | | 4.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | | 0.0 | 0.2 | 1.0 | | 0.2 | | | | |

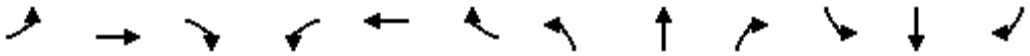
| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 16.7 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 165 | 360 | 45 | 45 | 295 | 30 | 45 | 95 | 50 | 30 | 45 | 165 |
| Future Volume (veh/h) | 165 | 360 | 45 | 45 | 295 | 30 | 45 | 95 | 50 | 30 | 45 | 165 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1826 | 1826 | 1826 | 1678 | 1678 | 1678 | 1678 | 1678 | 1678 |
| Adj Flow Rate, veh/h | 179 | 391 | 49 | 49 | 321 | 33 | 49 | 103 | 54 | 33 | 49 | 179 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 5 | 5 | 5 | 15 | 15 | 15 | 15 | 15 | 15 |
| Cap, veh/h | 226 | 602 | 75 | 72 | 472 | 49 | 162 | 198 | 90 | 122 | 77 | 220 |
| Arrive On Green | 0.13 | 0.38 | 0.38 | 0.04 | 0.29 | 0.29 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1739 | 1591 | 199 | 1739 | 1628 | 167 | 250 | 912 | 413 | 110 | 353 | 1012 |
| Grp Volume(v), veh/h | 179 | 0 | 440 | 49 | 0 | 354 | 206 | 0 | 0 | 261 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1790 | 1739 | 0 | 1796 | 1574 | 0 | 0 | 1475 | 0 | 0 |
| Q Serve(g_s), s | 4.1 | 0.0 | 8.4 | 1.1 | 0.0 | 7.2 | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 4.1 | 0.0 | 8.4 | 1.1 | 0.0 | 7.2 | 4.7 | 0.0 | 0.0 | 6.8 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.11 | 1.00 | | 0.09 | 0.24 | | 0.26 | 0.13 | | 0.69 |
| Lane Grp Cap(c), veh/h | 226 | 0 | 677 | 72 | 0 | 521 | 450 | 0 | 0 | 419 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.65 | 0.68 | 0.00 | 0.68 | 0.46 | 0.00 | 0.00 | 0.62 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 294 | 0 | 952 | 168 | 0 | 824 | 450 | 0 | 0 | 419 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 17.5 | 0.0 | 10.6 | 19.6 | 0.0 | 13.0 | 14.5 | 0.0 | 0.0 | 15.3 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 10.5 | 0.0 | 1.1 | 10.5 | 0.0 | 1.6 | 3.3 | 0.0 | 0.0 | 6.8 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 0.0 | 2.4 | 0.6 | 0.0 | 2.3 | 1.6 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 27.9 | 0.0 | 11.7 | 30.1 | 0.0 | 14.6 | 17.9 | 0.0 | 0.0 | 22.2 | 0.0 | 0.0 |
| LnGrp LOS | C | A | B | C | A | B | B | A | A | C | A | A |
| Approach Vol, veh/h | | 619 | | | 403 | | | 206 | | | 261 | |
| Approach Delay, s/veh | | 16.4 | | | 16.4 | | | 17.9 | | | 22.2 | |
| Approach LOS | | B | | | B | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.7 | 20.7 | | 14.0 | 10.4 | 17.0 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 7.0 | 19.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.1 | 10.4 | | 8.8 | 6.1 | 9.2 | | 6.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | | 0.0 | 0.0 | 1.4 | | 0.2 | | | | |

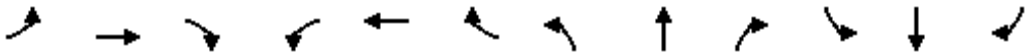
| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 17.6 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 180 | 490 | 40 | 40 | 420 | 30 | 40 | 40 | 20 | 50 | 40 | 230 |
| Future Volume (veh/h) | 180 | 490 | 40 | 40 | 420 | 30 | 40 | 40 | 20 | 50 | 40 | 230 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1826 | 1826 | 1826 | 1678 | 1678 | 1678 | 1678 | 1678 | 1678 |
| Adj Flow Rate, veh/h | 196 | 533 | 43 | 43 | 457 | 33 | 43 | 43 | 22 | 54 | 43 | 250 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 5 | 5 | 5 | 15 | 15 | 15 | 15 | 15 | 15 |
| Cap, veh/h | 249 | 706 | 57 | 64 | 533 | 39 | 188 | 154 | 59 | 125 | 49 | 209 |
| Arrive On Green | 0.14 | 0.42 | 0.42 | 0.04 | 0.32 | 0.32 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1739 | 1667 | 135 | 1739 | 1683 | 121 | 371 | 760 | 289 | 155 | 245 | 1030 |
| Grp Volume(v), veh/h | 196 | 0 | 576 | 43 | 0 | 490 | 108 | 0 | 0 | 347 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1802 | 1739 | 0 | 1804 | 1421 | 0 | 0 | 1430 | 0 | 0 |
| Q Serve(g_s), s | 4.8 | 0.0 | 12.1 | 1.1 | 0.0 | 11.3 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 4.8 | 0.0 | 12.1 | 1.1 | 0.0 | 11.3 | 2.5 | 0.0 | 0.0 | 9.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.07 | 1.00 | | 0.07 | 0.40 | | 0.20 | 0.16 | | 0.72 |
| Lane Grp Cap(c), veh/h | 249 | 0 | 762 | 64 | 0 | 572 | 401 | 0 | 0 | 383 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.76 | 0.67 | 0.00 | 0.86 | 0.27 | 0.00 | 0.00 | 0.91 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 391 | 0 | 891 | 156 | 0 | 649 | 401 | 0 | 0 | 383 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 18.4 | 0.0 | 10.9 | 21.1 | 0.0 | 14.2 | 15.2 | 0.0 | 0.0 | 18.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.5 | 0.0 | 3.2 | 11.2 | 0.0 | 10.0 | 1.6 | 0.0 | 0.0 | 27.4 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 0.0 | 3.9 | 0.6 | 0.0 | 5.0 | 0.9 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.9 | 0.0 | 14.0 | 32.4 | 0.0 | 24.3 | 16.8 | 0.0 | 0.0 | 45.9 | 0.0 | 0.0 |
| LnGrp LOS | C | A | B | C | A | C | B | A | A | D | A | A |
| Approach Vol, veh/h | | 772 | | | 533 | | | 108 | | | 347 | |
| Approach Delay, s/veh | | 16.5 | | | 24.9 | | | 16.8 | | | 45.9 | |
| Approach LOS | | B | | | C | | | B | | | D | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.6 | 23.8 | | 14.0 | 11.4 | 19.1 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 10.0 | 16.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.1 | 14.1 | | 11.0 | 6.8 | 13.3 | | 4.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | 0.0 | 0.2 | 0.8 | | 0.2 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 24.9 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 150 | 480 | 40 | 55 | 425 | 30 | 50 | 90 | 50 | 50 | 55 | 235 |
| Future Volume (veh/h) | 150 | 480 | 40 | 55 | 425 | 30 | 50 | 90 | 50 | 50 | 55 | 235 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1826 | 1826 | 1826 | 1826 | 1826 | 1826 | 1678 | 1678 | 1678 | 1678 | 1678 | 1678 |
| Adj Flow Rate, veh/h | 163 | 522 | 43 | 60 | 462 | 33 | 54 | 98 | 54 | 54 | 60 | 255 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 5 | 5 | 5 | 5 | 5 | 5 | 15 | 15 | 15 | 15 | 15 | 15 |
| Cap, veh/h | 207 | 672 | 55 | 82 | 560 | 40 | 158 | 170 | 80 | 127 | 64 | 215 |
| Arrive On Green | 0.12 | 0.40 | 0.40 | 0.05 | 0.33 | 0.33 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1739 | 1664 | 137 | 1739 | 1684 | 120 | 264 | 828 | 388 | 157 | 310 | 1043 |
| Grp Volume(v), veh/h | 163 | 0 | 565 | 60 | 0 | 495 | 206 | 0 | 0 | 369 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 0 | 1801 | 1739 | 0 | 1804 | 1480 | 0 | 0 | 1510 | 0 | 0 |
| Q Serve(g_s), s | 4.0 | 0.0 | 11.9 | 1.5 | 0.0 | 11.0 | 0.0 | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 4.0 | 0.0 | 11.9 | 1.5 | 0.0 | 11.0 | 5.5 | 0.0 | 0.0 | 9.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.08 | 1.00 | | 0.07 | 0.26 | | 0.26 | 0.15 | | 0.69 |
| Lane Grp Cap(c), veh/h | 207 | 0 | 727 | 82 | 0 | 600 | 409 | 0 | 0 | 405 | 0 | 0 |
| V/C Ratio(X) | 0.79 | 0.00 | 0.78 | 0.73 | 0.00 | 0.83 | 0.50 | 0.00 | 0.00 | 0.91 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 278 | 0 | 906 | 159 | 0 | 784 | 409 | 0 | 0 | 405 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 18.7 | 0.0 | 11.3 | 20.5 | 0.0 | 13.4 | 15.9 | 0.0 | 0.0 | 18.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 10.3 | 0.0 | 3.4 | 11.6 | 0.0 | 5.6 | 4.4 | 0.0 | 0.0 | 27.1 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.9 | 0.0 | 3.9 | 0.8 | 0.0 | 4.2 | 1.8 | 0.0 | 0.0 | 5.8 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 29.0 | 0.0 | 14.7 | 32.1 | 0.0 | 19.0 | 20.3 | 0.0 | 0.0 | 45.1 | 0.0 | 0.0 |
| LnGrp LOS | C | A | B | C | A | B | C | A | A | D | A | A |
| Approach Vol, veh/h | | 728 | | | 555 | | | 206 | | | 369 | |
| Approach Delay, s/veh | | 17.9 | | | 20.4 | | | 20.3 | | | 45.1 | |
| Approach LOS | | B | | | C | | | C | | | D | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.1 | 22.7 | | 14.0 | 10.2 | 19.5 | | 14.0 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 4.0 | 22.0 | | 9.0 | 7.0 | 19.0 | | 9.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.5 | 13.9 | | 11.0 | 6.0 | 13.0 | | 7.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | 0.0 | 0.0 | 1.5 | | 0.1 | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | | 24.3 |
| HCM 6th LOS | | C |

**CALCULATION OF FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES (NCHRP 255)**

**Intersection No.:** 1
**North/South Street:** DEEP CREEK RD
**East/West Street:** ROCKSPRINGS RD

**Analysis Condition:** YEAR 2040 FUTURE TRAFFIC

**A.M. Peak Hour**

| Approach Direction | | Base Year Count | Forecast Future Year Link Volume | | | Turn Volume | Rounded Volume |
|---|---|---|---|---|---|---|---|
| South leg | Left | 20 | Approach | 104 | Left | 137 | 140 |
| NB | Through | 25 | Departure | 63 | Through | 64 | 60 |
| | Right | 15 | | | Right | 44 | 40 |
| North leg | Left | 15 | Approach | 187 | Left | 5 | 10 |
| SB | Through | 15 | Departure | 197 | Through | 12 | 10 |
| | Right | 180 | | | Right | 148 | 150 |
| West leg | Left | 120 | Approach | 537 | Left | 125 | 130 |
| EB | Through | 245 | Departure | 641 | Through | 296 | 300 |
| | Right | 15 | | | Right | 41 | 40 |
| East leg | Left | 10 | Approach | 421 | Left | 11 | 10 |
| WB | Through | 325 | Departure | 345 | Through | 355 | 360 |
| | Right | 20 | | | Right | 8 | 10 |

**P.M. Peak Hour**

| Approach Direction | | Base Year Count | Forecast Future Year Link Volume | | | Turn Volume | Rounded Volume |
|---|---|---|---|---|---|---|---|
| South leg | Left | 30 | Approach | 90 | Left | 37 | 40 |
| NB | Through | 40 | Departure | 119 | Through | 45 | 40 |
| | Right | 15 | | | Right | 24 | 20 |
| North leg | Left | 25 | Approach | 269 | Left | 49 | 50 |
| SB | Through | 25 | Departure | 259 | Through | 38 | 40 |
| | Right | 155 | | | Right | 231 | 230 |
| West leg | Left | 190 | Approach | 605 | Left | 180 | 180 |
| EB | Through | 360 | Departure | 691 | Through | 493 | 490 |
| | Right | 40 | | | Right | 43 | 40 |
| East leg | Left | 25 | Approach | 420 | Left | 38 | 40 |
| WB | Through | 280 | Departure | 566 | Through | 422 | 420 |
| | Right | 25 | | | Right | 34 | 30 |

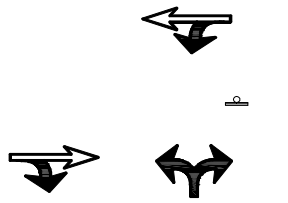
DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET OF |
|---|---|---|---|---|
| TURN MOVEMENTS | TM | 5-Mar-19 | MMAI0000-1001 | 1 OF 2 |

E/W STREET : ROCKSPRINGS RD
N/S STREET : PROJECT DRIVEWAY A
CONDITION : AM PEAK HOUR

INTERSECTION : 2
PROJECTED GROWTH PER YEAR : 2%

# CONDITION DIAGRAMS



**PROJECT GEOMETRICS**

## TURN MOVEMENTS

| Condition | Existing Condition Traffic | Ambient Growth | Background Condition Traffic | Project Trips | Project Condition Traffic | Future Year 2040 Condition Traffic | Future +Project Year 2040 Condition Traffic |
|---|---|---|---|---|---|---|---|
| Scenario # | 1 | | 3 | | 5 | 7 | 9 |
| **ROCKSPRINGS RD** | | | | | | | |
| EB LEFT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EB THRU | 380 | 10 | 390 | -20 | 370 | 470 | 450 |
| EB RIGHT | 0 | 0 | 0 | 45 | 45 | 0 | 45 |
| WB LEFT | 0 | 0 | 0 | 50 | 50 | 0 | 50 |
| WB THRU | 520 | 15 | 535 | -30 | 505 | 650 | 620 |
| WB RIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **PROJECT DRIVEWAY A** | | | | | | | |
| NB LEFT | 0 | 0 | 0 | 55 | 55 | 0 | 55 |
| NB THRU | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NB RIGHT | 0 | 0 | 0 | 30 | 30 | 0 | 30 |
| SB LEFT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SB THRU | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SB RIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **TOTALS** | **900** | **25** | **925** | **130** | **1055** | **1120** | **1250** |

DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET | OF |
|---|---|---|---|---|---|
| TURN VOLUME SUMMARY | TM | 5-Mar-19 | MMAI0000-1001 | 2 | OF 2 |

E/W STREET : ROCKSPRINGS RD
N/S STREET : PROJECT DRIVEWAY A
CONDITION : AM PEAK HOUR
PHF : 0.89

| NORTH LEG | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| SOUTH LEG | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| EAST LEG | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 |
| 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| 0 | 4 | 0 | 0 | 1 | 0 | 0 | 3 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

| WEST LEG | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 |

| NORTH LEG | | | SOUTH LEG | | | EAST LEG | | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 113 | 0 | 0 | 79 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 129 | 0 | 0 | 110 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 137 | 0 | 0 | 103 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 | 0 | 0 | 74 | 0 |

| | TRUCK TOTAL | AUTO VOLUMES | TOTALS | ROUNDED TOTALS | TRUCK PERCENTAGE |
|---|---|---|---|---|---|
| **ROCKSPRINGS RD** | | | | | |
| EB LEFT | 0 | 0 | **0** | **0** | **0%** |
| EB THRU | 10 | 366 | **376** | **380** | **5%** |
| EB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| WB LEFT | 0 | 0 | **0** | **0** | **0%** |
| WB THRU | 16 | 501 | **517** | **520** | **5%** |
| WB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| **PROJECT DRIVEWAY A** | | | | | |
| NB LEFT | 0 | 0 | **0** | **0** | **0%** |
| NB THRU | 0 | 0 | **0** | **0** | **0%** |
| NB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| SB LEFT | 0 | 0 | **0** | **0** | **0%** |
| SB THRU | 0 | 0 | **0** | **0** | **0%** |
| SB RIGHT | 0 | 0 | **0** | **0** | **0%** |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 370 | 45 | 50 | 505 | 55 | 30 |
| Future Vol, veh/h | 370 | 45 | 50 | 505 | 55 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 5 | 15 | 15 | 5 | 5 | 30 |
| Mvmt Flow | 420 | 51 | 57 | 574 | 63 | 34 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 471 | 0 | 1134 | 446 |
| Stage 1 | - | - | - | - | 446 | - |
| Stage 2 | - | - | - | - | 688 | - |
| Critical Hdwy | - | - | 4.25 | - | 6.45 | 6.5 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | - | - | 2.335 | - | 3.545 | 3.57 |
| Pot Cap-1 Maneuver | - | - | 1026 | - | 221 | 558 |
| Stage 1 | - | - | - | - | 639 | - |
| Stage 2 | - | - | - | - | 493 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1026 | - | 203 | 558 |
| Mov Cap-2 Maneuver | - | - | - | - | 203 | - |
| Stage 1 | - | - | - | - | 587 | - |
| Stage 2 | - | - | - | - | 493 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.8 | 26.6 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 262 | - | - | 1026 | - |
| HCM Lane V/C Ratio | 0.369 | - | - | 0.055 | - |
| HCM Control Delay (s) | 26.6 | - | - | 8.7 | 0 |
| HCM Lane LOS | D | - | - | A | A |
| HCM 95th %tile Q(veh) | 1.6 | - | - | 0.2 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.1 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 450 | 45 | 50 | 620 | 55 | 30 |
| Future Vol, veh/h | 450 | 45 | 50 | 620 | 55 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 5 | 15 | 15 | 5 | 5 | 30 |
| Mvmt Flow | 511 | 51 | 57 | 705 | 63 | 34 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 562 | 0 | 1356 | 537 |
| Stage 1 | - | - | - | - | 537 | - |
| Stage 2 | - | - | - | - | 819 | - |
| Critical Hdwy | - | - | 4.25 | - | 6.45 | 6.5 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | - | - | 2.335 | - | 3.545 | 3.57 |
| Pot Cap-1 Maneuver | - | - | 948 | - | 162 | 493 |
| Stage 1 | - | - | - | - | 580 | - |
| Stage 2 | - | - | - | - | 428 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 948 | - | 146 | 493 |
| Mov Cap-2 Maneuver | - | - | - | - | 146 | - |
| Stage 1 | - | - | - | - | 523 | - |
| Stage 2 | - | - | - | - | 428 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.7 | 40.7 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 194 | - | - | 948 | - |
| HCM Lane V/C Ratio | 0.498 | - | - | 0.06 | - |
| HCM Control Delay (s) | 40.7 | - | - | 9 | 0 |
| HCM Lane LOS | E | - | - | A | A |
| HCM 95th %tile Q(veh) | 2.5 | - | - | 0.2 | - |

DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET OF |
|---|---|---|---|---|
| TURN MOVEMENTS | TM | 5-Mar-19 | MMAI0000-1001 | 1 OF 2 |

E/W STREET : ROCKSPRINGS RD
N/S STREET : PROJECT DRIVEWAY A
CONDITION : PM PEAK HOUR

INTERSECTION : 2
PROJECTED GROWTH PER YEAR : 2%

## TURN MOVEMENTS

| Condition | Existing Condition Traffic | Ambient Growth | Background Condition Traffic | Project Trips | Project Condition Traffic | Future Year 2040 Condition Traffic | Future +Project Year 2040 Condition Traffic |
|---|---|---|---|---|---|---|---|
| Scenario # | 2 | | 4 | | 6 | 8 | 10 |
| **ROCKSPRINGS RD** | | | | | | | |
| EB LEFT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EB THRU | 585 | 15 | 600 | -65 | 535 | 710 | 645 |
| EB RIGHT | 0 | 0 | 0 | 90 | 90 | 0 | 90 |
| WB LEFT | 0 | 0 | 0 | 30 | 30 | 0 | 30 |
| WB THRU | 455 | 10 | 465 | -10 | 455 | 690 | 680 |
| WB RIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **PROJECT DRIVEWAY A** | | | | | | | |
| NB LEFT | 0 | 0 | 0 | 35 | 35 | 0 | 35 |
| NB THRU | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NB RIGHT | 0 | 0 | 0 | 30 | 30 | 0 | 30 |
| SB LEFT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SB THRU | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SB RIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **TOTALS** | **1040** | **25** | **1065** | **110** | **1175** | **1400** | **1510** |

DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET OF |
|---|---|---|---|---|
| TURN VOLUME SUMMARY | TM | 5-Mar-19 | MMAI0000-1001 | 2 OF 2 |

E/W STREET : ROCKSPRINGS RD
N/S STREET : PROJECT DRIVEWAY A
CONDITION : PM PEAK HOUR
PHF : 0.93

NORTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

SOUTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EAST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 |
| 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

WEST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| NORTH LEG | | | SOUTH LEG | | | EAST LEG | | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 0 | 0 | 137 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115 | 0 | 0 | 162 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 | 0 | 0 | 143 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 | 0 | 0 | 132 | 0 |

| | TRUCK TOTAL | AUTO VOLUMES | TOTALS | ROUNDED TOTALS | TRUCK PERCENTAGE |
|---|---|---|---|---|---|
| **ROCKSPRINGS RD** | | | | | |
| EB LEFT | 0 | 0 | **0** | **0** | **0%** |
| EB THRU | 8 | 574 | **582** | **585** | **5%** |
| EB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| WB LEFT | 0 | 0 | **0** | **0** | **0%** |
| WB THRU | 9 | 446 | **455** | **455** | **5%** |
| WB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| **PROJECT DRIVEWAY A** | | | | | |
| NB LEFT | 0 | 0 | **0** | **0** | **0%** |
| NB THRU | 0 | 0 | **0** | **0** | **0%** |
| NB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| SB LEFT | 0 | 0 | **0** | **0** | **0%** |
| SB THRU | 0 | 0 | **0** | **0** | **0%** |
| SB RIGHT | 0 | 0 | **0** | **0** | **0%** |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 535 | 90 | 30 | 455 | 35 | 30 |
| Future Vol, veh/h | 535 | 90 | 30 | 455 | 35 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 5 | 10 | 5 | 5 | 5 | 25 |
| Mvmt Flow | 582 | 98 | 33 | 495 | 38 | 33 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 680 | 0 | 1192 | 631 |
| Stage 1 | - | - | - | - | 631 | - |
| Stage 2 | - | - | - | - | 561 | - |
| Critical Hdwy | - | - | 4.15 | - | 6.45 | 6.45 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | - | - | 2.245 | - | 3.545 | 3.525 |
| Pot Cap-1 Maneuver | - | - | 898 | - | 204 | 442 |
| Stage 1 | - | - | - | - | 525 | - |
| Stage 2 | - | - | - | - | 565 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 898 | - | 194 | 442 |
| Mov Cap-2 Maneuver | - | - | - | - | 194 | - |
| Stage 1 | - | - | - | - | 498 | - |
| Stage 2 | - | - | - | - | 565 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.6 | 23.7 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 262 | - | - | 898 | - |
| HCM Lane V/C Ratio | 0.27 | - | - | 0.036 | - |
| HCM Control Delay (s) | 23.7 | - | - | 9.2 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 1.1 | - | - | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 645 | 90 | 30 | 680 | 35 | 30 |
| Future Vol, veh/h | 645 | 90 | 30 | 680 | 35 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 5 | 10 | 5 | 5 | 5 | 25 |
| Mvmt Flow | 701 | 98 | 33 | 739 | 38 | 33 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 799 | 0 | 1555 | 750 |
| Stage 1 | - | - | - | - | 750 | - |
| Stage 2 | - | - | - | - | 805 | - |
| Critical Hdwy | - | - | 4.15 | - | 6.45 | 6.45 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | - | - | 2.245 | - | 3.545 | 3.525 |
| Pot Cap-1 Maneuver | - | - | 811 | - | 122 | 376 |
| Stage 1 | - | - | - | - | 461 | - |
| Stage 2 | - | - | - | - | 435 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 811 | - | 114 | 376 |
| Mov Cap-2 Maneuver | - | - | - | - | 114 | - |
| Stage 1 | - | - | - | - | 429 | - |
| Stage 2 | - | - | - | - | 435 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.4 | 41.2 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 168 | - | - | 811 | - |
| HCM Lane V/C Ratio | 0.421 | - | - | 0.04 | - |
| HCM Control Delay (s) | 41.2 | - | - | 9.6 | 0 |
| HCM Lane LOS | E | - | - | A | A |
| HCM 95th %tile Q(veh) | 1.9 | - | - | 0.1 | - |

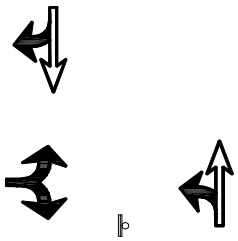
DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET OF |
|---|---|---|---|---|
| TURN MOVEMENTS | TM | 5-Mar-19 | MMAI0000-1001 | 1 OF 2 |

E/W STREET : PROJECT DRIVEWAY B
N/S STREET : DEEP CREEK RD
CONDITION : AM PEAK HOUR

INTERSECTION : 3
PROJECTED GROWTH PER YEAR : 2%

# CONDITION DIAGRAMS



**PROJECT GEOMETRICS**

## TURN MOVEMENTS

| Condition | Existing Condition Traffic | Ambient Growth | Background Condition Traffic | Project Trips | Project Condition Traffic | Future Year 2040 Condition Traffic | Future +Project Year 2040 Condition Traffic |
|---|---|---|---|---|---|---|---|
| Scenario # | 1 | | 3 | | 5 | 7 | 9 |
| **PROJECT DRIVEWAY B** | | | | | | | |
| EB LEFT | 0 | 0 | 0 | 95 | 95 | 0 | 95 |
| EB THRU | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EB RIGHT | 0 | 0 | 0 | 10 | 10 | 0 | 10 |
| WB LEFT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WB THRU | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WB RIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **DEEP CREEK RD** | | | | | | | |
| NB LEFT | 0 | 0 | 0 | 10 | 10 | 0 | 10 |
| NB THRU | 55 | 5 | 60 | 0 | 60 | 240 | 240 |
| NB RIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SB LEFT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SB THRU | 35 | 5 | 40 | 0 | 40 | 60 | 60 |
| SB RIGHT | 0 | 0 | 0 | 85 | 85 | 0 | 85 |
| **TOTALS** | **90** | **10** | **100** | **200** | **300** | **300** | **500** |

DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET | OF |
|---|---|---|---|---|---|
| TURN VOLUME SUMMARY | TM | 5-Mar-19 | MMAI0000-1001 | 2 | OF 2 |

E/W STREET : PROJECT DRIVEWAY B
CONDITION : AM PEAK HOUR
N/S STREET : DEEP CREEK RD
PHF : 0.67

NORTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 |

SOUTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EAST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

WEST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| NORTH LEG | | | SOUTH LEG | | | EAST LEG | | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 1 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 11 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 6 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 9 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | TRUCK TOTAL | AUTO VOLUMES | TOTALS | ROUNDED TOTALS | TRUCK PERCENTAGE |
|---|---|---|---|---|---|
| **PROJECT DRIVEWAY B** | | | | | |
| EB LEFT | 0 | 0 | **0** | **0** | **0%** |
| EB THRU | 0 | 0 | **0** | **0** | **0%** |
| EB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| WB LEFT | 0 | 0 | **0** | **0** | **0%** |
| WB THRU | 0 | 0 | **0** | **0** | **0%** |
| WB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| **DEEP CREEK RD** | | | | | |
| NB LEFT | 0 | 0 | **0** | **0** | **0%** |
| NB THRU | 8 | 46 | **54** | **55** | **15%** |
| NB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| SB LEFT | 0 | 0 | **0** | **0** | **0%** |
| SB THRU | 7 | 27 | **34** | **35** | **20%** |
| SB RIGHT | 0 | 0 | **0** | **0** | **0%** |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 95 | 10 | 10 | 60 | 40 | 85 |
| Future Vol, veh/h | 95 | 10 | 10 | 60 | 40 | 85 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 5 | 15 | 5 | 15 | 25 | 5 |
| Mvmt Flow | 108 | 11 | 11 | 68 | 45 | 97 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 184 | 94 | 142 | 0 | - | 0 |
| Stage 1 | 94 | - | - | - | - | - |
| Stage 2 | 90 | - | - | - | - | - |
| Critical Hdwy | 6.45 | 6.35 | 4.15 | - | - | - |
| Critical Hdwy Stg 1 | 5.45 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.45 | - | - | - | - | - |
| Follow-up Hdwy | 3.545 | 3.435 | 2.245 | - | - | - |
| Pot Cap-1 Maneuver | 798 | 928 | 1423 | - | - | - |
| Stage 1 | 922 | - | - | - | - | - |
| Stage 2 | 926 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 792 | 928 | 1423 | - | - | - |
| Mov Cap-2 Maneuver | 792 | - | - | - | - | - |
| Stage 1 | 915 | - | - | - | - | - |
| Stage 2 | 926 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.3 | 1.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1423 | - | 803 | - | - |
| HCM Lane V/C Ratio | 0.008 | - | 0.149 | - | - |
| HCM Control Delay (s) | 7.5 | 0 | 10.3 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.5 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 95 | 10 | 10 | 240 | 60 | 85 |
| Future Vol, veh/h | 95 | 10 | 10 | 240 | 60 | 85 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 5 | 15 | 5 | 15 | 25 | 5 |
| Mvmt Flow | 108 | 11 | 11 | 273 | 68 | 97 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 412 | 117 | 165 | 0 | - | 0 |
| Stage 1 | 117 | - | - | - | - | - |
| Stage 2 | 295 | - | - | - | - | - |
| Critical Hdwy | 6.45 | 6.35 | 4.15 | - | - | - |
| Critical Hdwy Stg 1 | 5.45 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.45 | - | - | - | - | - |
| Follow-up Hdwy | 3.545 | 3.435 | 2.245 | - | - | - |
| Pot Cap-1 Maneuver | 591 | 901 | 1395 | - | - | - |
| Stage 1 | 901 | - | - | - | - | - |
| Stage 2 | 749 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 586 | 901 | 1395 | - | - | - |
| Mov Cap-2 Maneuver | 586 | - | - | - | - | - |
| Stage 1 | 893 | - | - | - | - | - |
| Stage 2 | 749 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.4 | 0.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1395 | - | 606 | - | - |
| HCM Lane V/C Ratio | 0.008 | - | 0.197 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 12.4 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.7 | - | - |

DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET OF |
|---|---|---|---|---|
| TURN MOVEMENTS | TM | 5-Mar-19 | MMAI0000-1001 | 1 OF 2 |

E/W STREET : PROJECT DRIVEWAY B
N/S STREET : DEEP CREEK RD
CONDITION : PM PEAK HOUR

INTERSECTION : 3
PROJECTED GROWTH PER YEAR : 2%

## TURN MOVEMENTS

| Condition | Existing Condition Traffic | Ambient Growth | Background Condition Traffic | Project Trips | Project Condition Traffic | Future Year 2040 Condition Traffic | Future +Project Year 2040 Condition Traffic |
|---|---|---|---|---|---|---|---|
| Scenario # | 2 | | 4 | | 6 | 8 | 10 |
| **PROJECT DRIVEWAY B** | | | | | | | |
| EB LEFT | 0 | 0 | 0 | 85 | 85 | 0 | 85 |
| EB THRU | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EB RIGHT | 0 | 0 | 0 | 10 | 10 | 0 | 10 |
| WB LEFT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WB THRU | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WB RIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **DEEP CREEK RD** | | | | | | | |
| NB LEFT | 0 | 0 | 0 | 10 | 10 | 0 | 10 |
| NB THRU | 85 | 5 | 90 | 0 | 90 | 100 | 100 |
| NB RIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SB LEFT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SB THRU | 80 | 5 | 85 | 0 | 85 | 120 | 120 |
| SB RIGHT | 0 | 0 | 0 | 30 | 30 | 0 | 30 |
| **TOTALS** | **165** | **10** | **175** | **135** | **310** | **220** | **355** |

DAVID EVANS AND ASSOCIATES INC.

| SUBJECT | BY | DATE | JOB NO. | SHEET OF |
|---|---|---|---|---|
| TURN VOLUME SUMMARY | TM | 5-Mar-19 | MMAI0000-1001 | 2 OF 2 |

E/W STREET : PROJECT DRIVEWAY B
CONDITION : PM PEAK HOUR

N/S STREET : DEEP CREEK RD
PHF : 0.89

NORTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

SOUTH LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EAST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

WEST LEG

| LARGE 2 AXLE | | | LARGE 3 AXLE | | | LARGE 4(+) AXLE | | |
|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| NORTH LEG | | | SOUTH LEG | | | EAST LEG | | | WEST LEG | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RT | THRU | LT | RT | THRU | LT | RT | THRU | LT | RT | THRU | LT |
| 0 | 11 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 23 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 19 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | TRUCK TOTAL | AUTO VOLUMES | TOTALS | ROUNDED TOTALS | TRUCK PERCENTAGE |
|---|---|---|---|---|---|
| **PROJECT DRIVEWAY B** | | | | | |
| EB LEFT | 0 | 0 | **0** | **0** | **0%** |
| EB THRU | 0 | 0 | **0** | **0** | **0%** |
| EB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| WB LEFT | 0 | 0 | **0** | **0** | **0%** |
| WB THRU | 0 | 0 | **0** | **0** | **0%** |
| WB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| **DEEP CREEK RD** | | | | | |
| NB LEFT | 0 | 0 | **0** | **0** | **0%** |
| NB THRU | 8 | 73 | **81** | **85** | **10%** |
| NB RIGHT | 0 | 0 | **0** | **0** | **0%** |
| SB LEFT | 0 | 0 | **0** | **0** | **0%** |
| SB THRU | 8 | 72 | **80** | **80** | **10%** |
| SB RIGHT | 0 | 0 | **0** | **0** | **0%** |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 85 | 10 | 10 | 90 | 85 | 30 |
| Future Vol, veh/h | 85 | 10 | 10 | 90 | 85 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 5 | 10 | 5 | 15 | 15 | 5 |
| Mvmt Flow | 92 | 11 | 11 | 98 | 92 | 33 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 229 | 109 | 125 | 0 | - | 0 |
| Stage 1 | 109 | - | - | - | - | - |
| Stage 2 | 120 | - | - | - | - | - |
| Critical Hdwy | 6.45 | 6.3 | 4.15 | - | - | - |
| Critical Hdwy Stg 1 | 5.45 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.45 | - | - | - | - | - |
| Follow-up Hdwy | 3.545 | 3.39 | 2.245 | - | - | - |
| Pot Cap-1 Maneuver | 753 | 923 | 1443 | - | - | - |
| Stage 1 | 908 | - | - | - | - | - |
| Stage 2 | 898 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 747 | 923 | 1443 | - | - | - |
| Mov Cap-2 Maneuver | 747 | - | - | - | - | - |
| Stage 1 | 901 | - | - | - | - | - |
| Stage 2 | 898 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.5 | 0.8 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1443 | - | 762 | - | - |
| HCM Lane V/C Ratio | 0.008 | - | 0.136 | - | - |
| HCM Control Delay (s) | 7.5 | 0 | 10.5 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.5 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 85 | 10 | 10 | 100 | 120 | 30 |
| Future Vol, veh/h | 85 | 10 | 10 | 100 | 120 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 5 | 10 | 5 | 15 | 15 | 5 |
| Mvmt Flow | 92 | 11 | 11 | 109 | 130 | 33 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 278 | 147 | 163 | 0 | - | 0 |
| Stage 1 | 147 | - | - | - | - | - |
| Stage 2 | 131 | - | - | - | - | - |
| Critical Hdwy | 6.45 | 6.3 | 4.15 | - | - | - |
| Critical Hdwy Stg 1 | 5.45 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.45 | - | - | - | - | - |
| Follow-up Hdwy | 3.545 | 3.39 | 2.245 | - | - | - |
| Pot Cap-1 Maneuver | 705 | 879 | 1398 | - | - | - |
| Stage 1 | 873 | - | - | - | - | - |
| Stage 2 | 888 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 699 | 879 | 1398 | - | - | - |
| Mov Cap-2 Maneuver | 699 | - | - | - | - | - |
| Stage 1 | 866 | - | - | - | - | - |
| Stage 2 | 888 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.9 | 0.7 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1398 | - | 714 | - | - |
| HCM Lane V/C Ratio | 0.008 | - | 0.145 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 10.9 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.5 | - | - |