

# FALCON HIGHLANDS FILING No. 3

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## TRAFFIC IMPACT STUDY

**Prepared for:**

El Paso County, CO

**Prepared by:**



2435 Research Parkway, Suite 300  
Colorado Springs, CO 80920

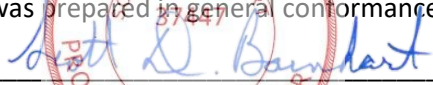
Contact: Scott Barnhart, PE, PTOE  
719.575.0100

**On Behalf of:**

Challenger Homes  
8605 Explorer Drive, Suite 250  
Colorado Springs, CO 80920

**Traffic Engineer's Statement**

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

  
\_\_\_\_\_  
Scott D. Barnhart, P.E. #37447

June 25, 2021

Date

**Developer's Statement**

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

\_\_\_\_\_  
*Jim Byers, VP*  
Challenger Homes  
8605 Explorer Drive, Suite 250  
Colorado Springs, CO 80920

\_\_\_\_\_  
Date

June 25, 2021

SKP-21-004





June 25, 2021

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of Contents

Challenger Homes  
8605 Explorer Drive  
Suite 250  
Colorado Springs, CO 80920  
Attention: Mr. Jim Byers

**RE: Falcon Highlands Filing No. 3 Traffic Impact Study**

Dear Mr. Byers:

Matrix Design Group (Matrix) is pleased to present this traffic impact study (TIS) for the Falcon Highlands Filing No. 3 development. This TIS analyzes the existing roadway network in the vicinity of the project and determines the impact of the additional traffic generated by the proposed development. The full build-out year (2025) and horizon year (2045) conditions were analyzed, with and without the addition of site-generated traffic.

**Introduction**

The Falcon Highlands Filing No. 3 development, herein referred to as “the site”, is a proposed development located in El Paso County, Colorado. The site includes 395 proposed single-family detached houses. The site is bounded by the existing Falcon Highlands Filing No. 2 to the north, Tamlin Road to the east and south, and undeveloped land to the west. See Figure 1 for a vicinity map. The overall development was previously analyzed by LSC in the *Falcon Highlands Filing No. 3 Traffic Impact Analysis*, dated January 5, 2011. Additionally, several individual developments in and surrounding the Baseline development have submitted traffic impact studies. These studies include:

- *Banning Lewis Ranch Villages A – D Master Traffic Impact Study, 2020*
- *Falcon Highlands Taco Bell Traffic Technical Memorandum, 2018*

The proposed land use of the site is shown on the site plan in Figure 2.

The purpose of this TIS is to analyze the existing conditions within the study area, determine the traffic generated by the site, analyze the build-out year (2025) and horizon year (2045) traffic conditions, and determine the impact of site-generated traffic on the adjacent roadway network. The study area for this TIS includes seven intersections:

- Woodmen Road & Golden Sage Road
- Rolling Thunder Way & Bridal Vail Way
- Rolling Thunder Way & Antelope Meadows Circle (East)
- Rolling Thunder Way & Foxtail Meadow Lane
- Rolling Thunder Way & Meridian Road
- US 24 & Old Meridian Road (see paragraph below)
- US 24 & New Meridian Road

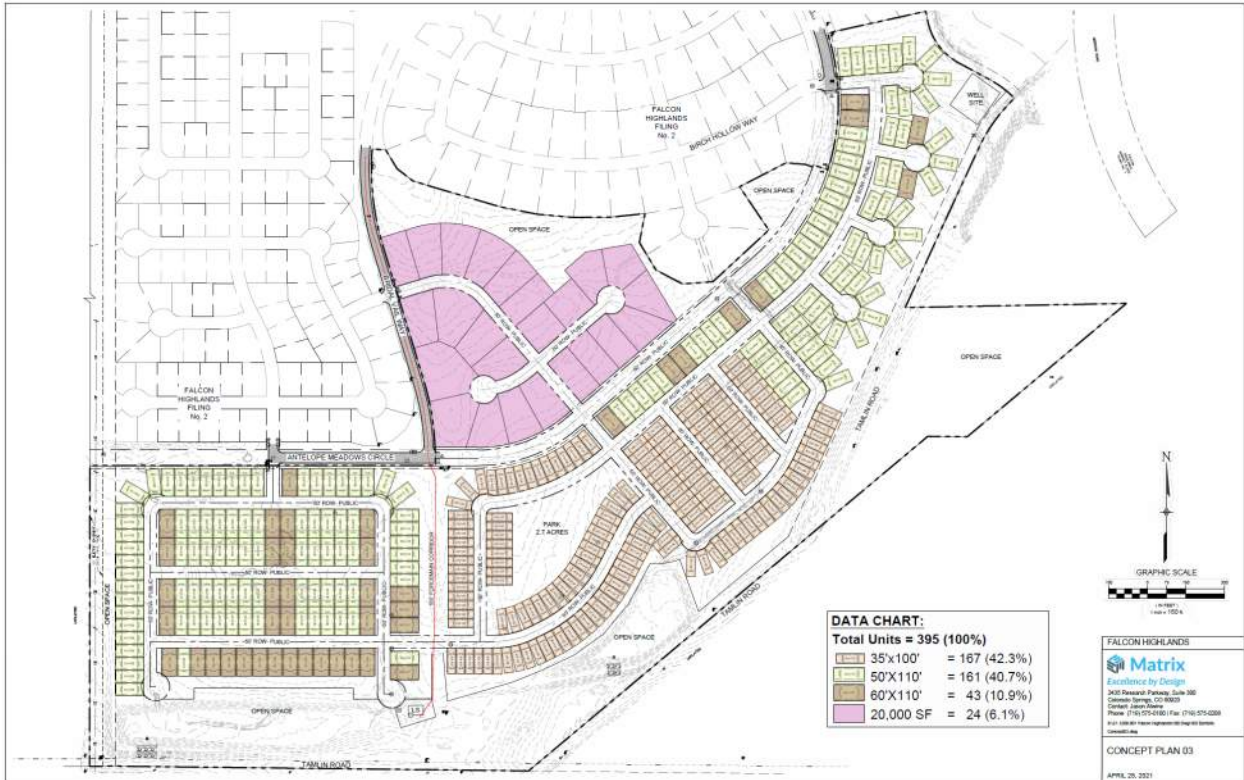
When All Traffic Data recorded traffic volumes at Old Meridian Road & US 24, the intersection was a full-movement signalized intersection. The intersection will become a right-in, right-out intersection by the year 2025. Therefore, Matrix did not analyze the Old Meridian Road & US 24 intersection in both future scenarios (full build-out and horizon). Furthermore, Matrix assumed that for future scenarios, the left-turn, northbound through, and southbound through traffic volumes that would have gone through the Old Meridian Road & US 24 intersection in the future scenarios will travel through the New Meridian Road & US 24 intersection instead.

**Excellence by Design**

Figure 1 – Vicinity Map



Figure 2 – Site Plan



### Existing Conditions

Matrix analyzed the existing traffic conditions at the intersections listed above based on the traffic volumes from All Traffic Data, taken May 20 and June 2, 2021. The existing intersection geometry is shown in Figure 3. The existing AM and PM peak hour traffic volumes are shown in Figures 4 and 5, respectively. A summary of how each of the study area intersections currently operate in the AM and PM peak scenarios is shown in Table 1 and Table 2, respectively. As shown in the tables, each of the seven intersections analyzed operate at an acceptable level-of-service (LOS) during both the AM and PM peak hours.

State what acceptable LOS is.

Matrix assumed that the response to the COVID-19 pandemic did not significantly impact ADT counts taken. CDOT records ADT counts on US 24 near New Meridian Road, which is close to where ADT counts were taken for this project. Prior to the pandemic, CDOT recorded an AADT of 16,737 in 2019. On May 20, 2021, All Traffic Data recorded an AADT of 18,566. Therefore, for the purposes of this TIS, the traffic volume does not seem to be impacted by the COVID-19 pandemic in this area.

**Figure 3 – Existing (2021) Intersection Geometry**

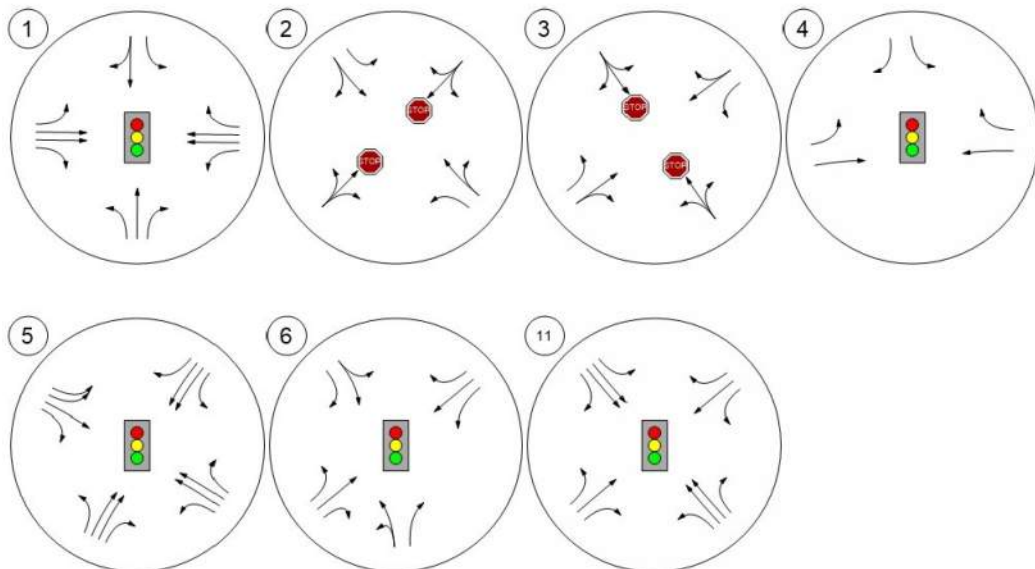




Figure 4 – Existing (2021) AM Peak Hour Traffic Volumes

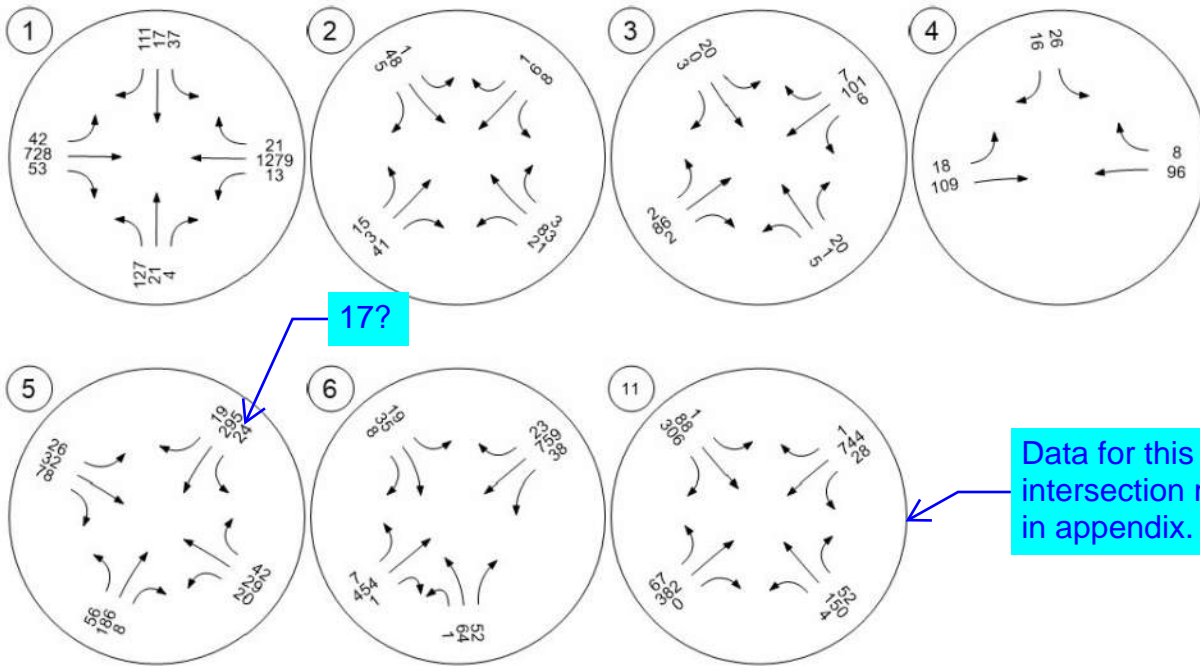
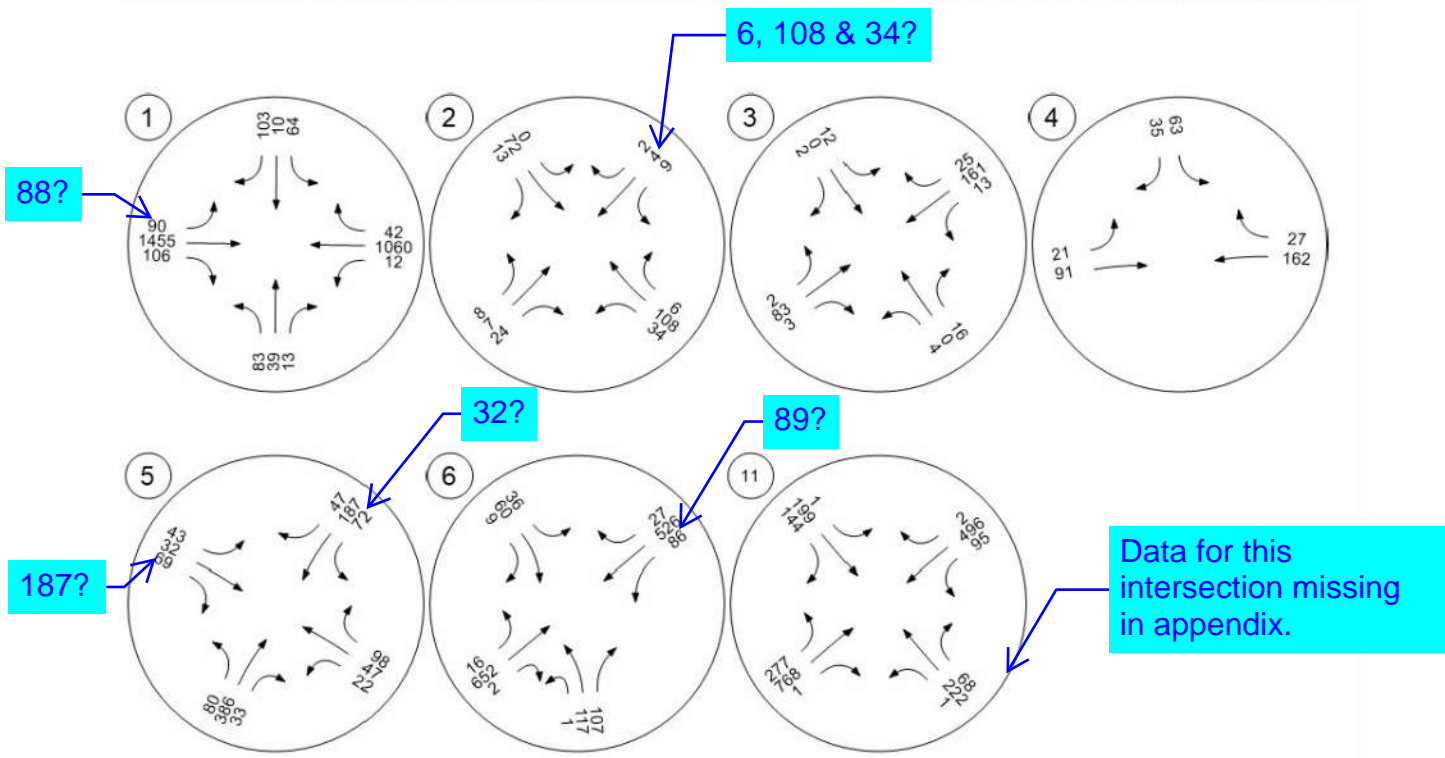


Figure 5 – Existing (2021) PM Peak Hour Traffic Volumes



**Table 1 – Existing (2021) AM Peak Hour LOS Summary**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C            | Delay (s/veh) | LOS     |
|----|---|--------------|-----------------|------------|----------------|---------------|---------|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | EB Left    | 0.582          | 23.9?<br>23.4 | C       |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | NB Thru    | 0.006          | 10.6          | B       |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | NB Thru    | 0.002          | 10.7          | B       |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | SB Left    | 0.095          | 9.9?<br>5.8   | A       |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | EB Left    | .189?<br>0.204 | 11.9?<br>18.7 | B       |
| 6  | Old Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | WB Thru    | 0.557          | 29.9?<br>29.5 | C       |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | WB Thru    | 0.586<br>.761? | 34.0<br>44.0? | C<br>D? |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Table 2 – Existing (2021) PM Peak Hour LOS Summary**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C            | Delay (s/veh) | LOS     |
|----|---|--------------|-----------------|------------|----------------|---------------|---------|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | WB Left    | 0.552          | 24.2?<br>25.3 | C       |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | NB Thru    | 0.014          | 11.4          | B       |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | SB Left    | 0.024          | 11.2          | B       |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | SB Left    | 0.160          | 10.5?<br>8.9  | B?<br>A |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | EB Left    | 0.26?<br>0.270 | 17.4?<br>22.7 | B?<br>C |
| 6  | Old Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | NB Right   | 0.585          | 31.4?<br>25.9 | C       |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | EB Thru    | 0.611<br>.655? | 34.4<br>31.5? | C       |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.



### Proposed Development

The site includes 395 proposed single-family houses, as shown in Figure 2. The trip generation results for daily trips and both AM and PM peak hours can be found in Table 3.

The site connects to the existing roadway network via Bridal Vail Way and Antelope Meadows Circle. See Figure 6 for the anticipated trip distribution of site-generated traffic.

The assignment of the new project trips from the site are shown in Figures 7 and 8 for the AM and PM peak hour, respectively.

Please provide statement on how the distribution was determined?

Please provide statement on how new project trips were determined?

For the purposes of this TIS, the growth rate is based on the CDOT growth rate in the vicinity of the site for the year 2019. The CDOT growth rate for 2020 was not used since traffic was impacted by the COVID-19 pandemic, resulting in a negative rate. The growth factor that results from a 3% per year background growth rate for the year 2025 is 1.1255. The growth factor that results from a 3% per year background growth rate for the year 2045 is 2.0328.

**Table 3 – Trip Generation Summary**

| Scenario              | Estimated New Vehicle Trips |      |       |
|-----------------------|-----------------------------|------|-------|
|                       | Entry                       | Exit | Total |
| Daily Trip Generation | 1840                        | 1840 | 3680  |
| AM Peak Hour          | 71                          | 214  | 285   |
| PM Peak Hour          | 239                         | 141  | 380   |

**Figure 6 – Trip Distribution**





Figure 7 – AM Peak Hour Trip Assignment

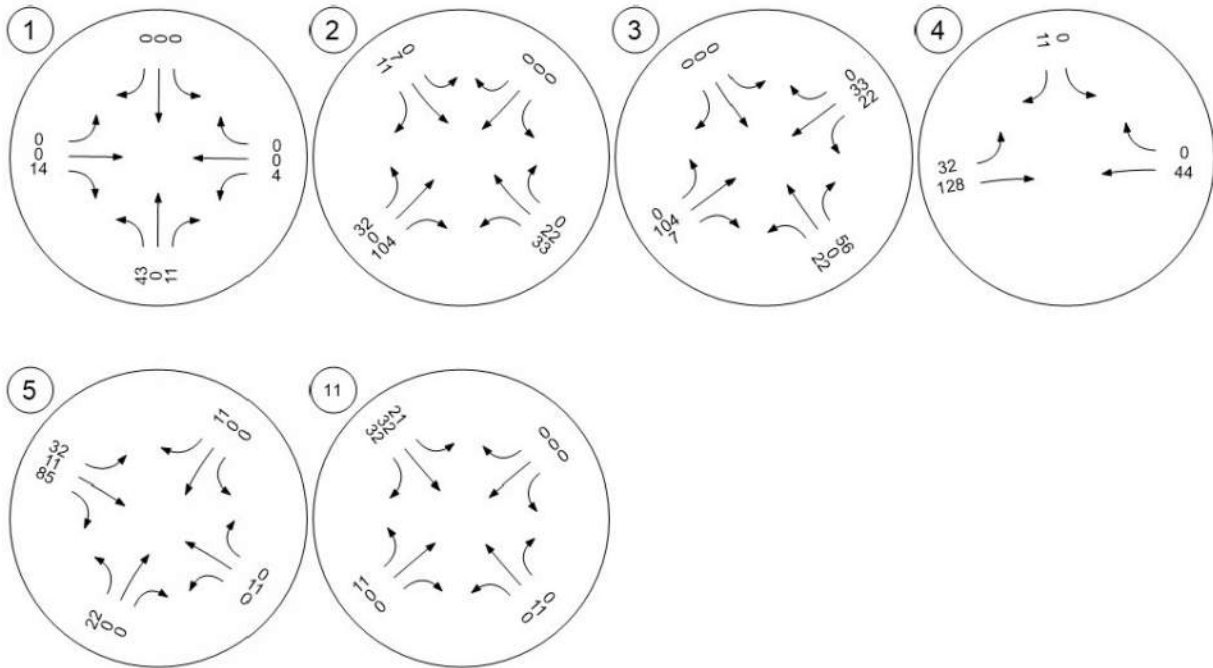
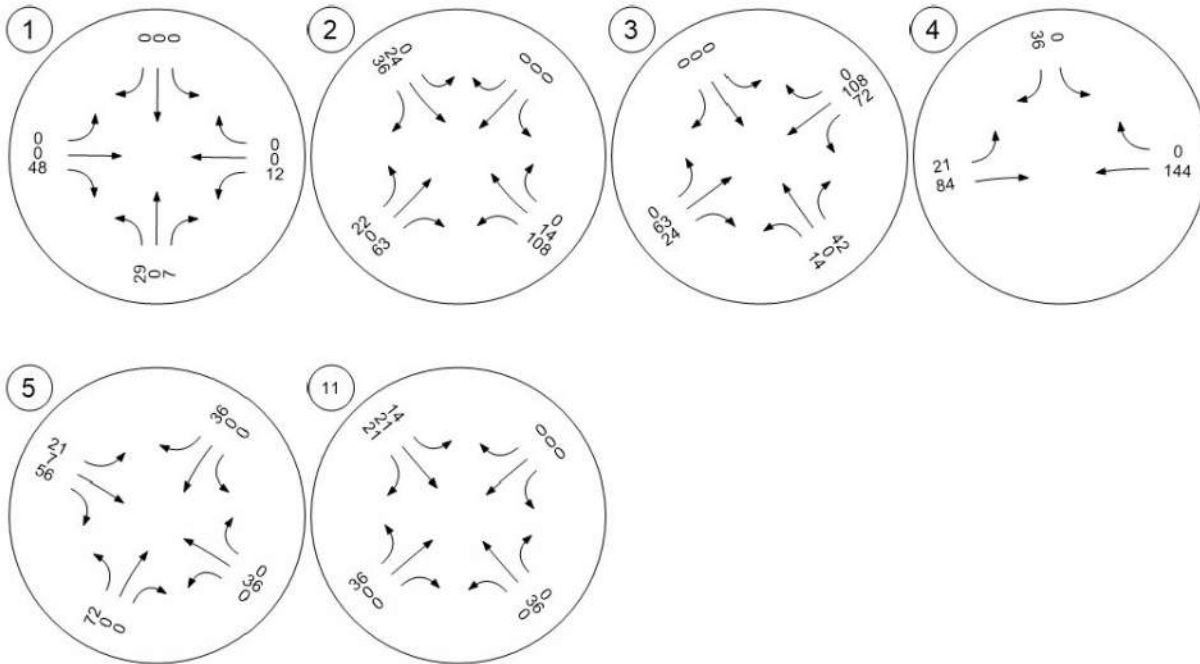


Figure 8 - PM Peak Hour Trip Assignment

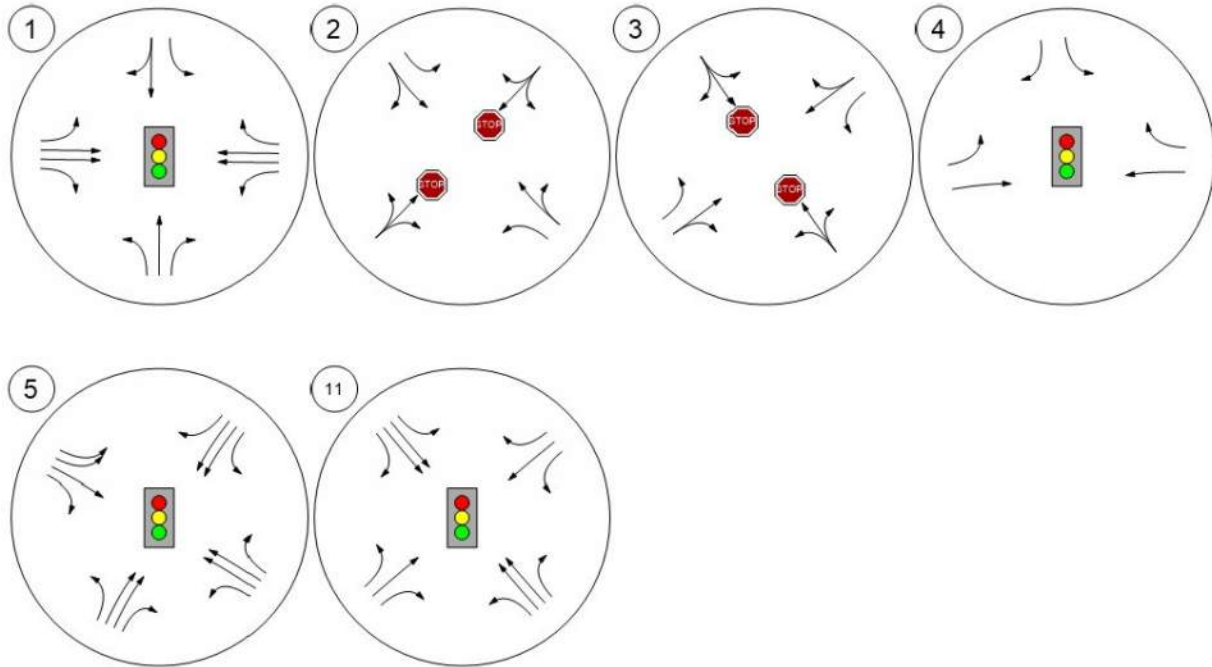
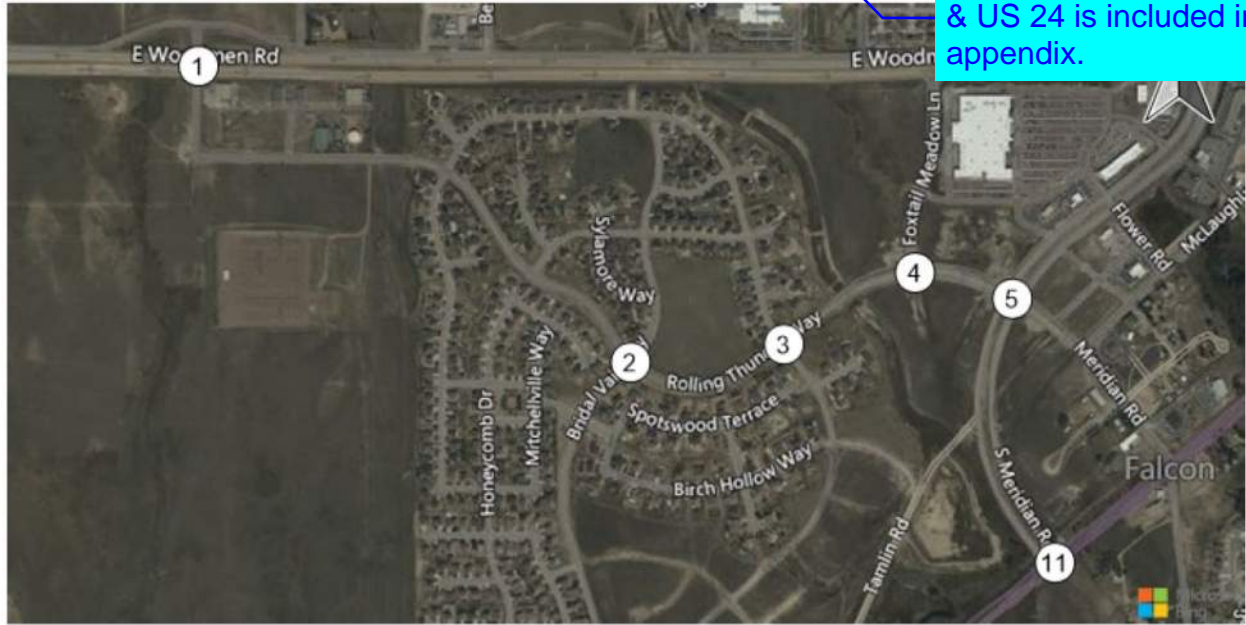


### Full Build-Out Conditions (2025) Traffic Analysis

Matrix assumed the site will be fully developed and inhabited by the year 2025. The anticipated intersection geometry is shown in Figure 9. Matrix assumed that the geometries of the six intersections analyzed in the future scenarios will not change from the existing lane geometry shown in Figure 3. As previously stated, the intersection of US 24 and Old Meridian was not analyzed in the future scenarios.

Figure 9 – Full Build-Out (2025) Intersection Geometry

Analysis of Old Meridian & US 24 is included in appendix.



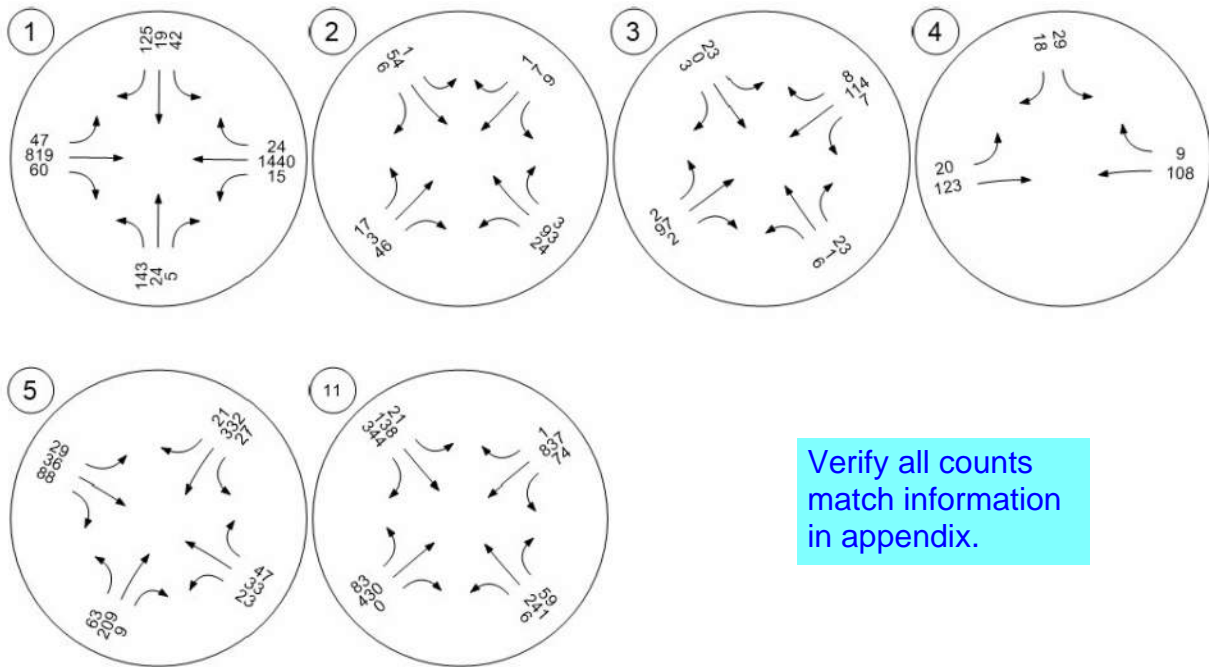
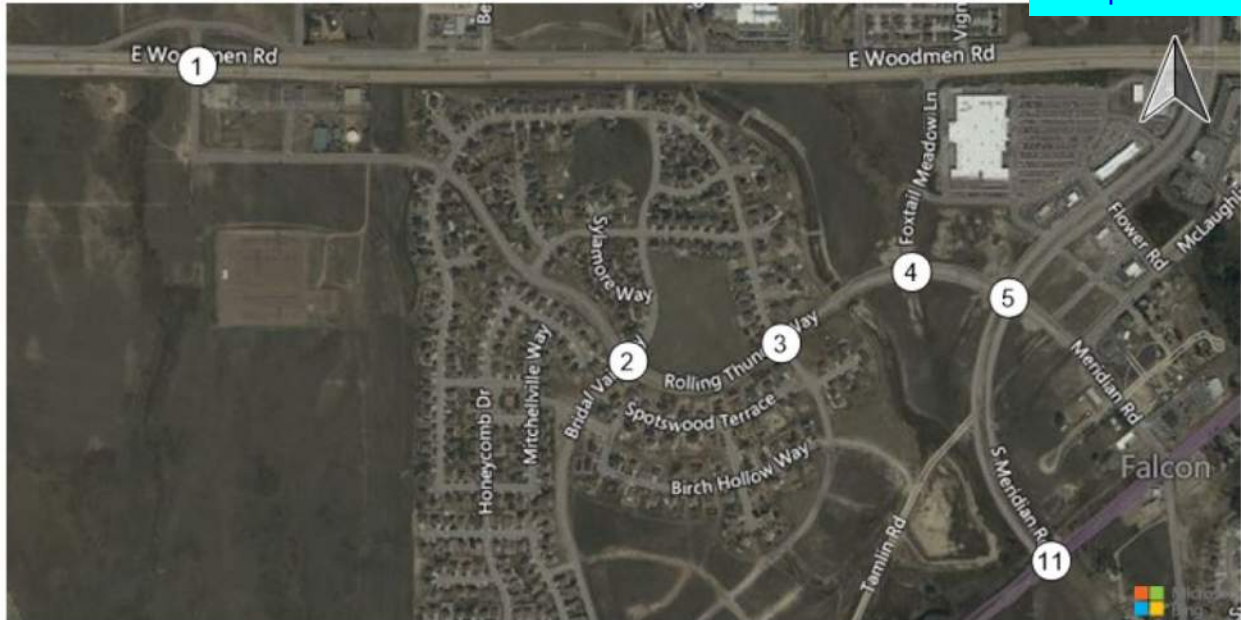


*Full Build-Out Conditions (2025) Background Traffic Analysis*

The anticipated AM and PM peak hour counts in the background scenarios are shown in Figures 10 and 11, respectively. A summary of the anticipated intersection performance during the background AM and PM peak scenarios is shown in Tables 4 and 5, respectively. As shown in the tables, each of the six intersections analyzed are anticipated to operate at an acceptable level-of-service (LOS) during both the AM and PM peak hours.

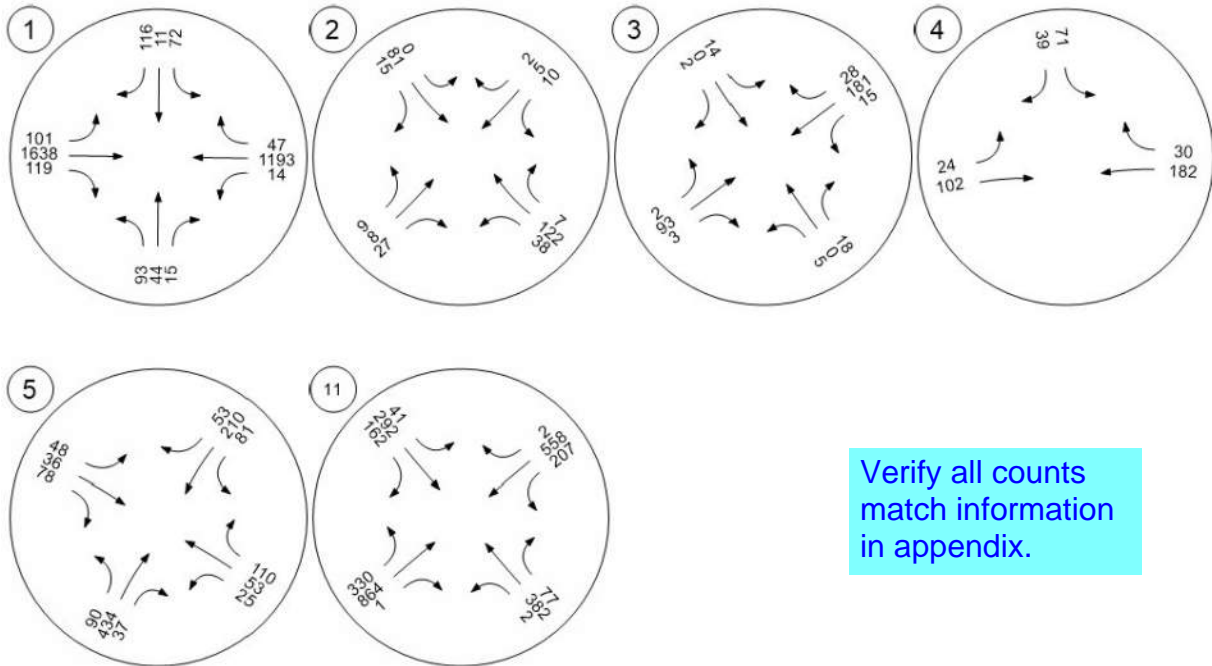
State what the acceptable LOS level is.

**Figure 10 – Full Build-Out (2025) Background AM Peak Hour Traffic Volumes**



Verify all counts match information in appendix.

Figure 11 – Full Build-Out (2025) Background PM Peak Hour Traffic Volumes



**Table 4 – Full Build-Out (2025) Background AM Peak Hour LOS Summary**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | EB Left    | 0.658 | 24.3          | C   |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | NB Thru    | 0.006 | 10.9          | B   |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | NB Thru    | 0.002 | 10.9          | B   |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | SB Left    | 0.107 | 5.7           | A   |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | EB Left    | 0.230 | 19.2          | B   |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | WB Thru    | 0.696 | 35.6          | D   |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Table 5 – Full Build-Out (2025) Background PM Peak Hour LOS Summary**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | WB Left    | 0.620 | 25.6          | C   |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | NB Thru    | 0.016 | 11.8          | B   |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | SB Left    | 0.029 | 11.7          | B   |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | SB Left    | 0.180 | 8.9           | A   |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | EB Left    | 0.301 | 22.4          | C   |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | WB Left    | 0.773 | 39.3          | D   |

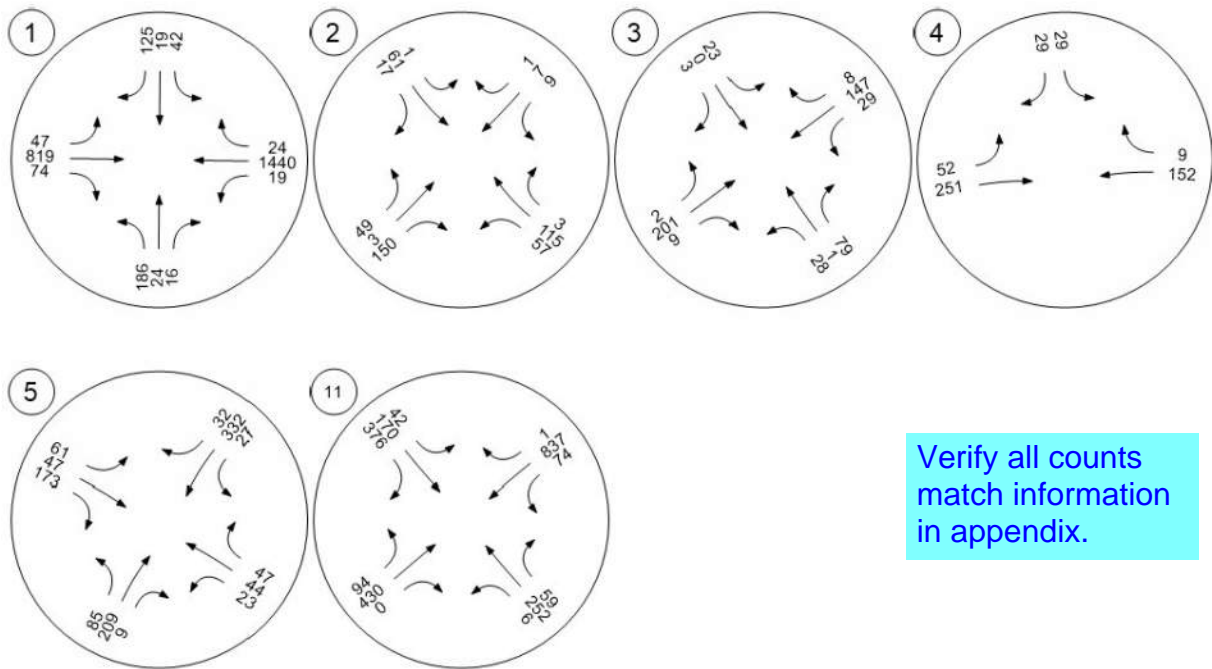
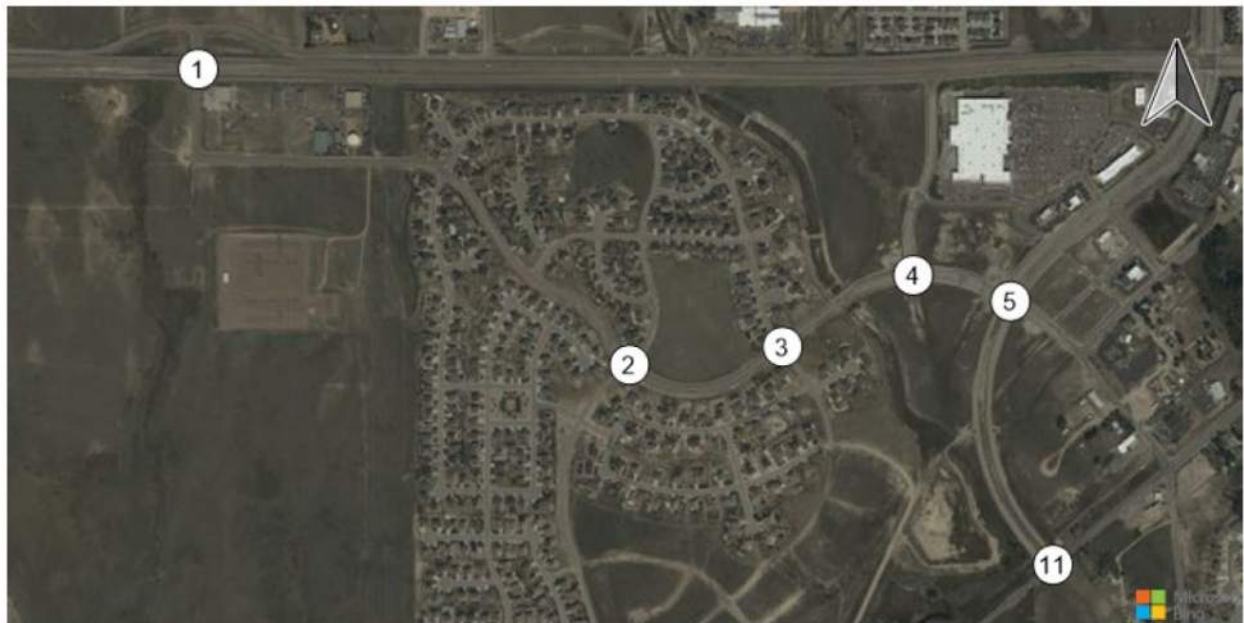
V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.



*Full Build-Out Conditions (2025) Total Traffic Analysis*

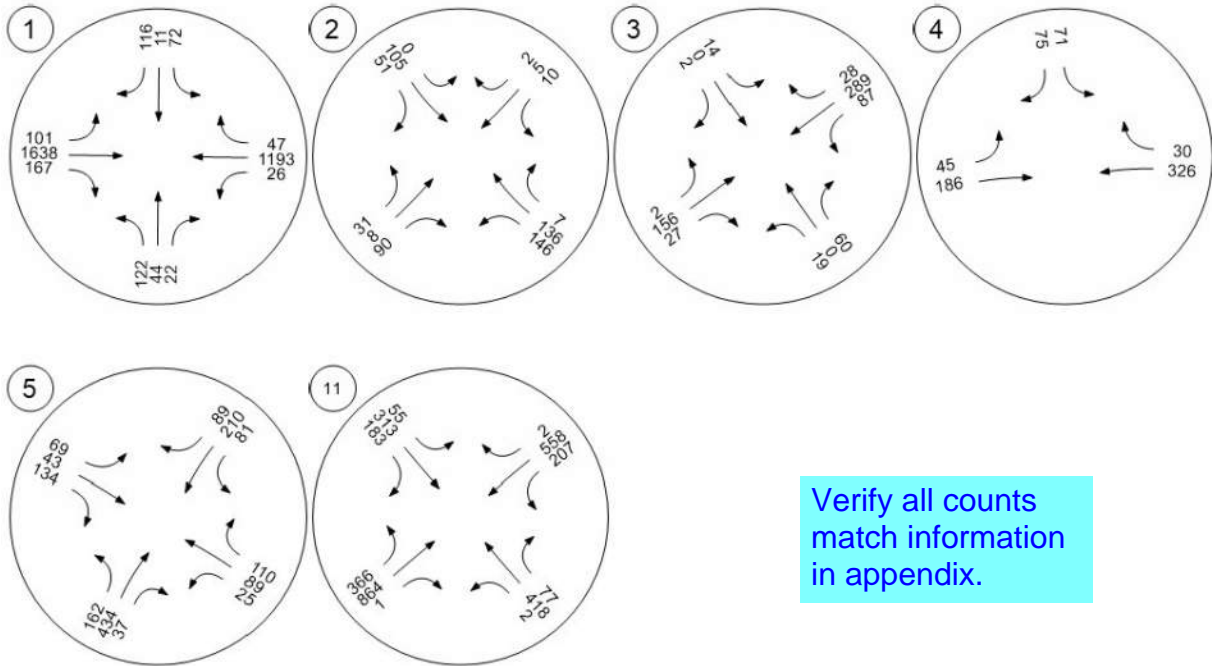
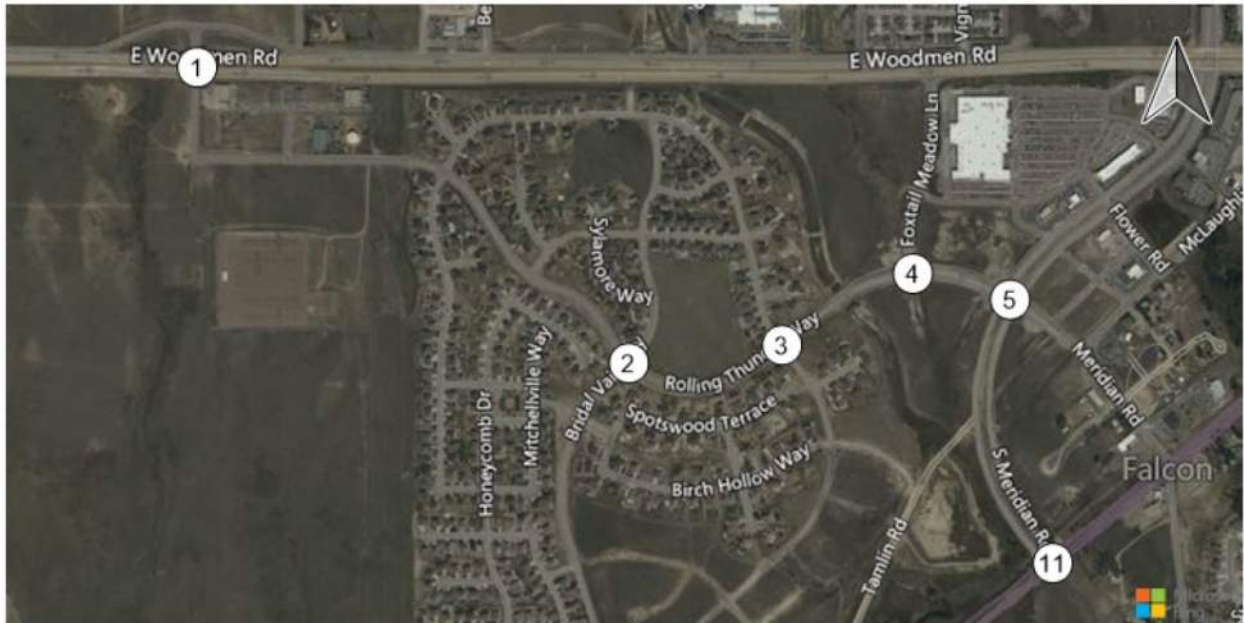
The anticipated AM and PM peak hour counts in the total (background and site-generated) traffic scenarios are shown in Figures 12 and 13, respectively. A summary of how each intersection operates in the AM and PM peaks is shown in Tables 6 and 7, respectively. As shown in the tables, each of the six intersections analyzed are anticipated to operate at an acceptable level-of-service (LOS) during both the AM and PM peak hours.

**Figure 12 – Full Build-Out (2025) Total AM Peak Hour Traffic Volumes**



Verify all counts match information in appendix.

Figure 13 – Full Build-Out (2025) Total PM Peak Hour Traffic Volumes



Verify all counts match information in appendix.

**Table 6 – Full Build-Out (2025) Total AM Peak Hour LOS Summary**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | EB Left    | 0.705 | 25.6          | C   |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | SB Left    | 0.026 | 13.9          | B   |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | SB Left    | 0.069 | 14.9          | B   |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | SB Right   | 0.199 | 4.8           | A   |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | EB Left    | 0.312 | 19.3          | B   |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | WB Thru    | 0.685 | 35.4          | D   |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Table 7 – Full Build-Out (2025) Total PM Peak Hour LOS Summary**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | WB Left    | 0.651 | 25.5          | C   |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | SB Left    | 0.045 | 19.2          | C   |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | SB Left    | 0.061 | 19.6          | C   |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | SB Right   | 0.290 | 8.0           | A   |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | EB Left    | 0.312 | 22.6          | C   |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | NB Thru    | 0.795 | 42.4          | D   |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.



The length of turn lanes required to accommodate the full build-out (2025) traffic was analyzed at each intersection. Table 8 shows the turn lanes that did not have adequate storage to meet El Paso County’s minimum or the 95% queue length, or both. The Engineering Criteria Manual, specifically Figure 2-27 and Table 2-30, was used to determine the minimum storage lengths for both signalized and stop-controlled intersections, respectively. The 95% queue lengths were given by PTV Vistro. Table 8 shows that the turning movements that do not have adequate storage in the 2025 scenario would be inadequate regardless of the site-generated traffic, except for the westbound left turn at Rolling Thunder Way and Bridal Vail Way. Matrix recommends extending the storage length of the westbound left turn lane to 150 feet to meet the County’s requirement. Note that additional storage length recommendations are included to accommodate the horizon (2045) traffic, as discussed later in this TIS.

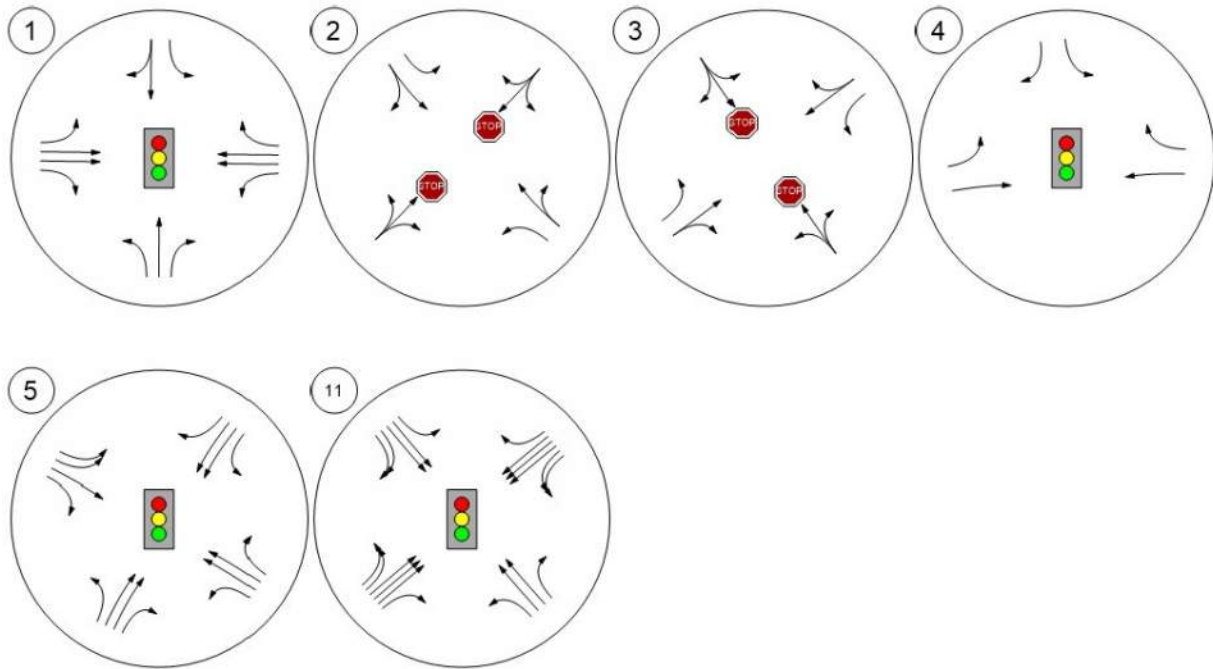
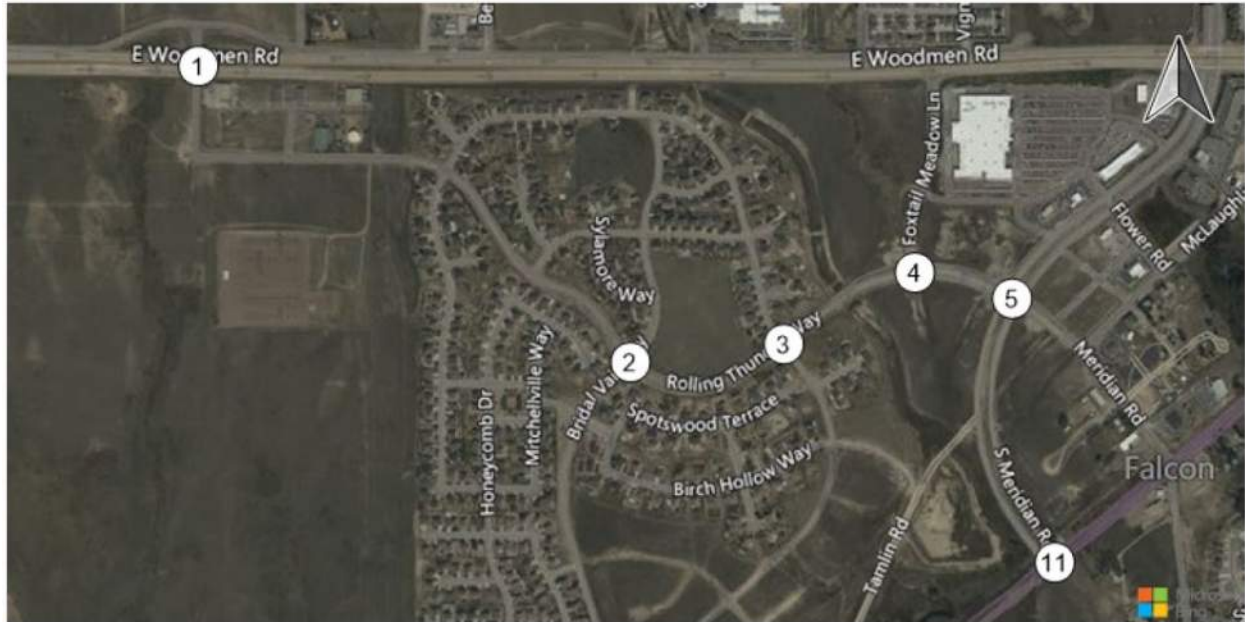
**Table 8 – Full Build-Out (2025) Inadequate Turn Lane Lengths**

| Intersection                          | Turning Movement | Turn Lane Length [ft] |                 |                 |            |                 |
|---------------------------------------|------------------|-----------------------|-----------------|-----------------|------------|-----------------|
|                                       |                  | Existing              | 2025 Background |                 | 2025 Total |                 |
|                                       |                  |                       | 95% Queue       | Min per EPC ECM | 95% Queue  | Min per EPC ECM |
| Woodmen Road & Golden Sage Road       | NBL              | 150                   | 261 (AM)        | 200             | 314 (AM)   | 250             |
| Rolling Thunder Way & Bridal Vail Way | WBL              | 100                   | 2 (PM)          | 50              | 11 (PM)    | 150             |

### Horizon (2045) Traffic Analysis

Matrix analyzed the traffic conditions for the horizon scenario, year 2045. The anticipated intersection geometry (without mitigation) is shown in Figure 14. The *Final Planning & Environmental Linkages (PEL) Report – US 24 Planning & Environmental Linkages Study* by CDOT, dated March 2018, was used to assume future lane geometries along the US 24 corridor.

**Figure 14 – Horizon (2045) Intersection Geometry (Without Mitigation)**



### *Horizon (2045) Background Traffic Analysis*

The projected traffic volumes during the 2045 AM and PM background peak hours are shown in Figures 15 and 16, respectively. A summary of how the study area intersections will operate (without mitigation) during the 2045 AM and PM background peak hours are shown in Tables 9 and 10, respectively. As shown in the tables, five of the six intersections analyzed are anticipated to operate at an acceptable level-of-service (LOS) during both the AM and PM peak hours. The intersection of Woodmen Road and Golden Sage Road is anticipated to have a LOS of F in both the AM and PM peak hours with the existing intersection geometry. To mitigate the failing LOS, the lane geometry of Woodmen Road is anticipated to include eight through lanes (four in each direction), as shown in the anticipated intersection geometry (with mitigation) in Figure 17. The LOS summary for the intersection of Woodmen Road and Golden Sage Road (with mitigation) is shown for AM and PM peak hours in Tables 11 and 12, respectively.

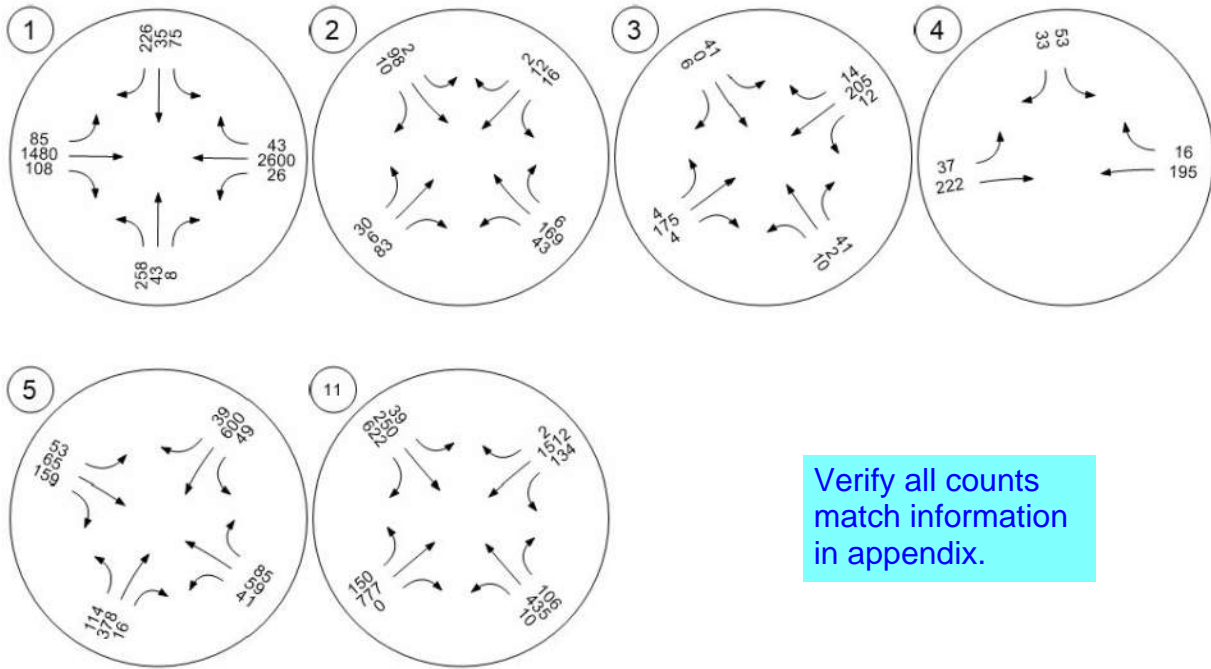
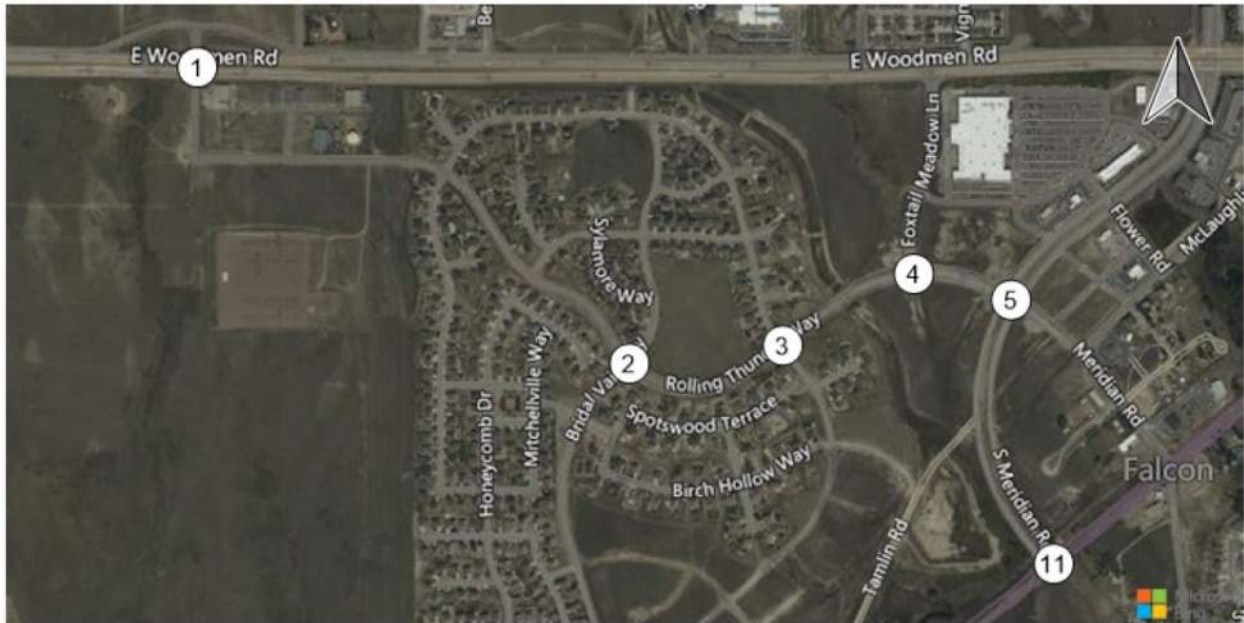
The following traffic signal phasing was assumed at the intersection of Woodmen Road and Golden Sage Road:

- Unmitigated
  - Eastbound protected left-turn phasing
- Mitigated
  - Eastbound protected left-turn phasing
  - Westbound protected left-turn phasing

The phasing for both eastbound and westbound left-turns in the mitigated scenario must be protected, due to the four opposing through lanes. Refer to Figure 4-16 in the *NCHRP Report 812 Signal Timing Manual Second Edition*, produced in cooperation with the USDOT and the FHWA.

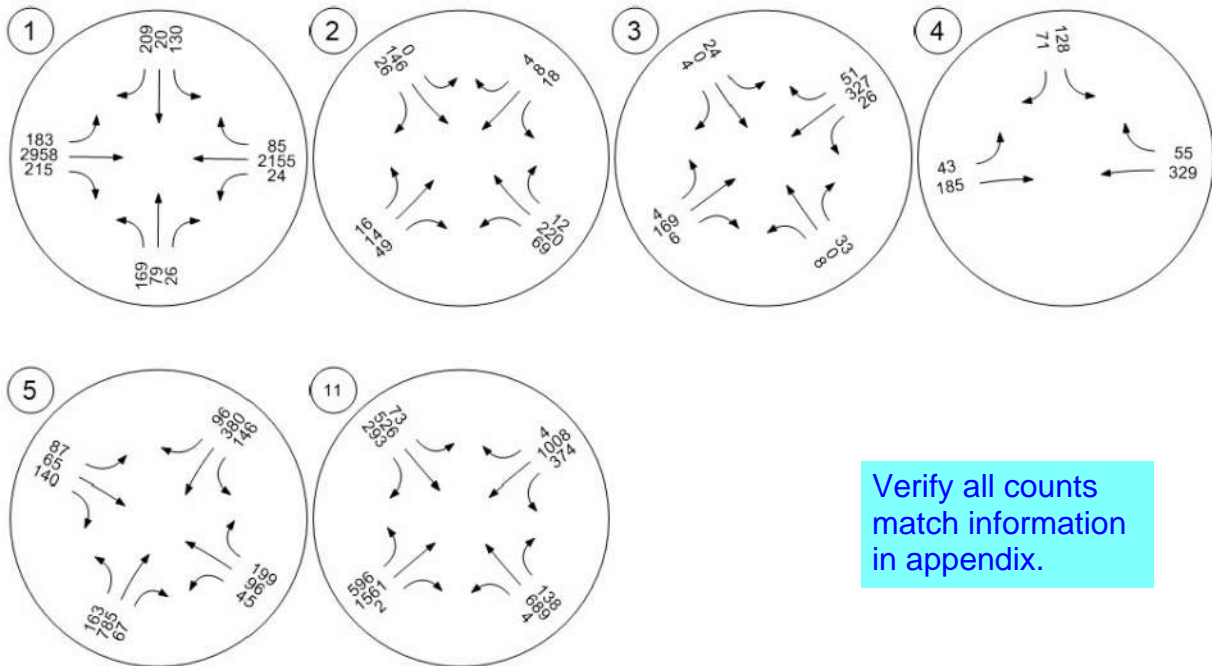
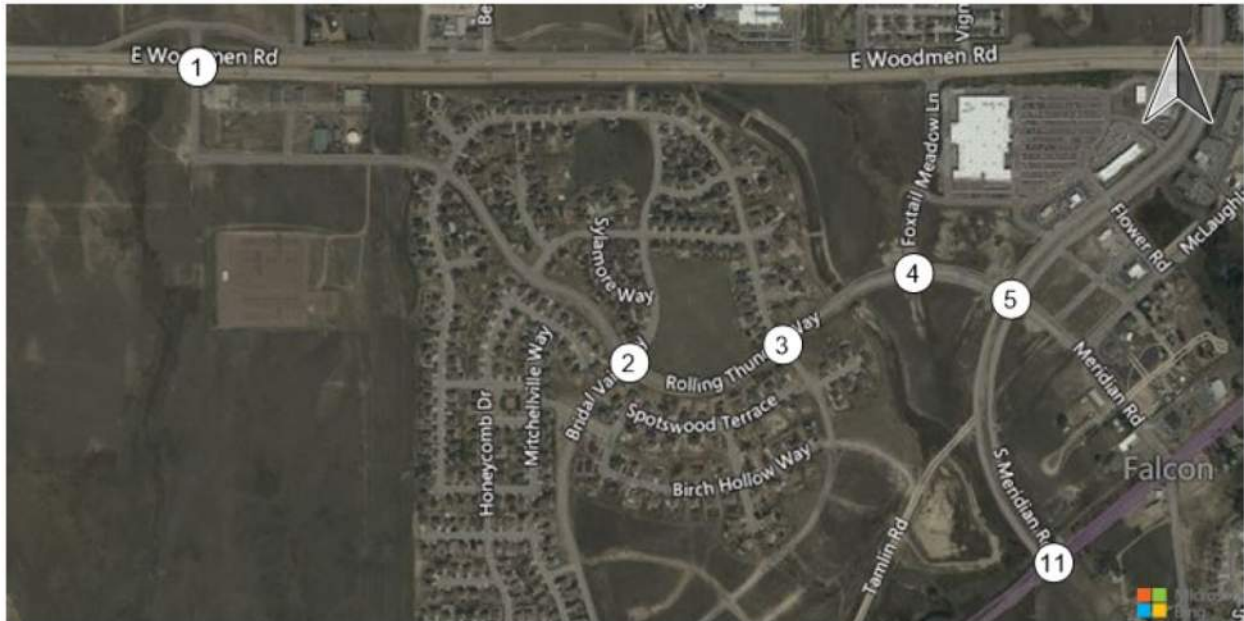


Figure 15 – Horizon (2045) Background AM Peak Hour Traffic Volumes



Verify all counts match information in appendix.

Figure 16 – Horizon (2045) Background PM Peak Hour Traffic Volumes



Verify all counts match information in appendix.

**Table 9 – Horizon (2045) Background AM Peak Hour LOS Summary (Without Mitigation)**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | WB Thru    | 1.183 | 166.6         | F   |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | SB Left    | 0.036 | 13.1          | B   |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | SB Left    | 0.090 | 13.3          | B   |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | SB Left    | 0.174 | 6.1           | A   |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | EB Left    | 0.366 | 18.1          | B   |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | NB Thru    | 0.536 | 22.8          | C   |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Table 10 – Horizon (2045) Background PM Peak Hour LOS Summary (Without Mitigation)**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | EB Thru    | 1.151 | 205.2         | F   |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | SB Left    | 0.051 | 15.4          | C   |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | SB Left    | 0.067 | 15.4          | C   |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | EB Left    | 0.290 | 11.2          | B   |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | WB Right   | 0.491 | 20.7          | C   |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | SB Thru    | 0.685 | 30.0          | C   |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Table 11 – Horizon (2045) Background AM Peak Hour LOS Summary (With Mitigation)**

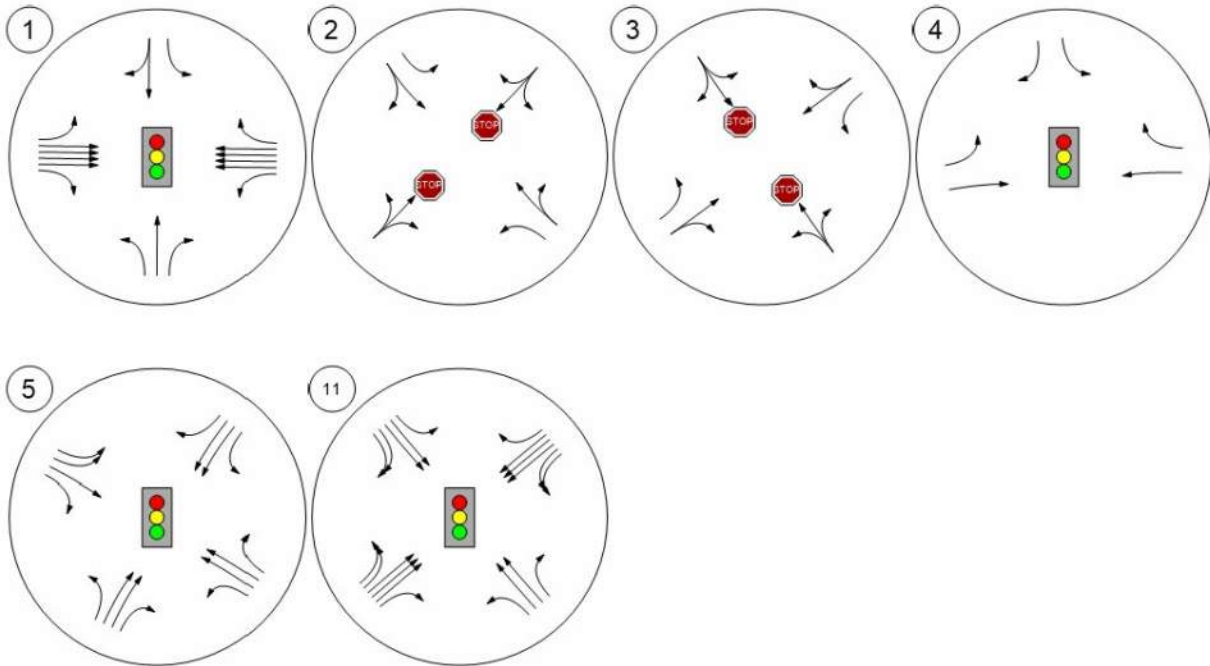
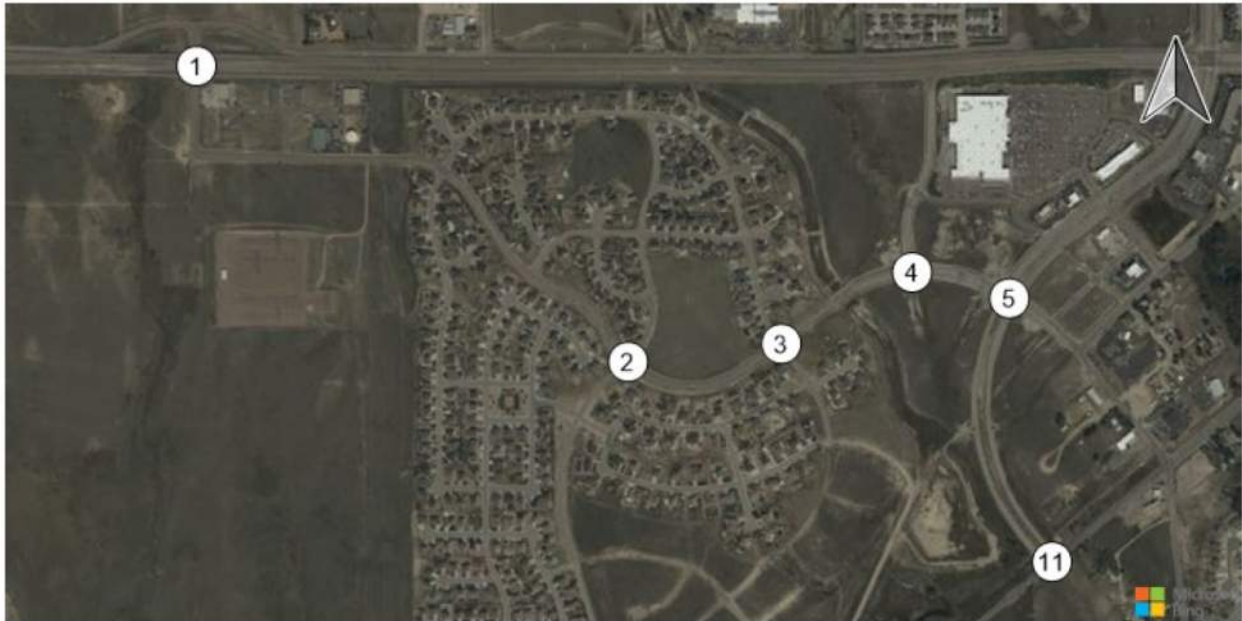
| ID | Intersection Name         | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd | Signalized   | HCM 6th Edition | EB Left    | 0.777 | 36.4          | D   |

**Table 12 – Horizon (2045) Background PM Peak Hour LOS Summary (With Mitigation)**

| ID | Intersection Name         | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd | Signalized   | HCM 6th Edition | WB Left    | 0.699 | 34.4          | C   |



Figure 17 – Horizon (2045) Intersection Geometry (With Mitigation)





### Horizon (2045) Total Traffic Analysis

The projected traffic volumes during the 2045 AM and PM total (background and site-generated) traffic scenarios are shown in Figures 18 and 19, respectively. A summary of how the study area intersections will operate (without mitigation) during the AM and PM peaks is shown in Tables 13 and 14, respectively. As previously discussed, Woodmen Road is anticipated to have eight through lanes (mitigation) at the intersection with Golden Sage Road. Tables 15 and 16 give the LOS summary (with mitigation) for the intersection of Woodmen Road and Golden Sage Road, respectively. As shown in the tables, each of the six intersections analyzed are anticipated to operate at an acceptable level-of-service (LOS) during both the AM and PM peak hours, assuming the mitigated scenario.

**Figure 18 – Horizon (2045) Total AM Peak Hour Traffic Volumes**

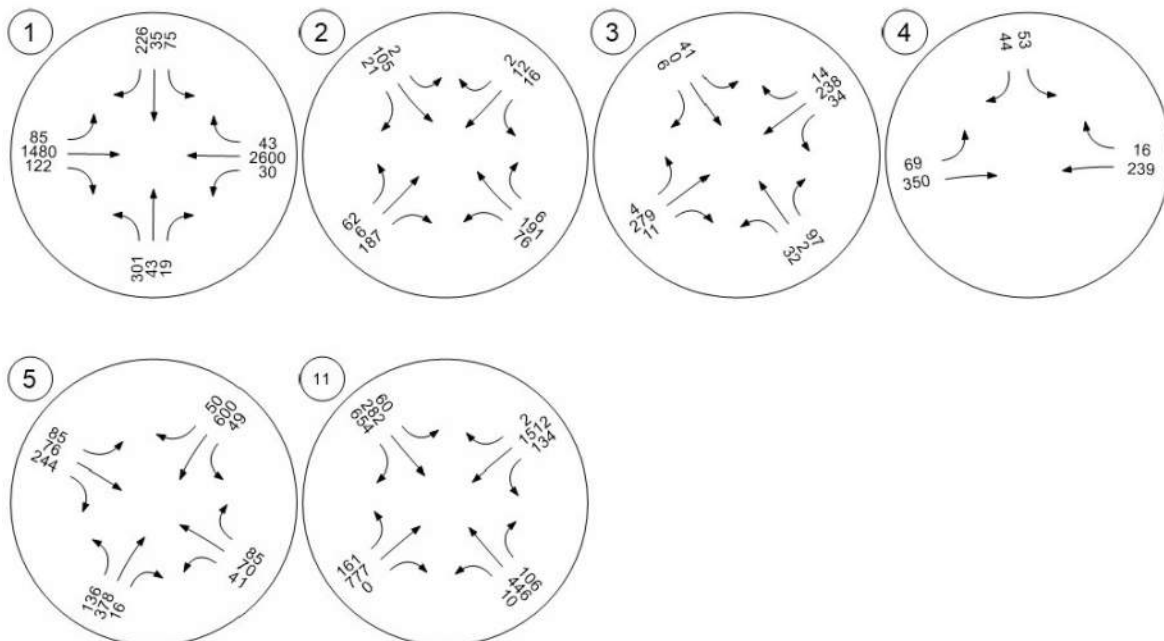
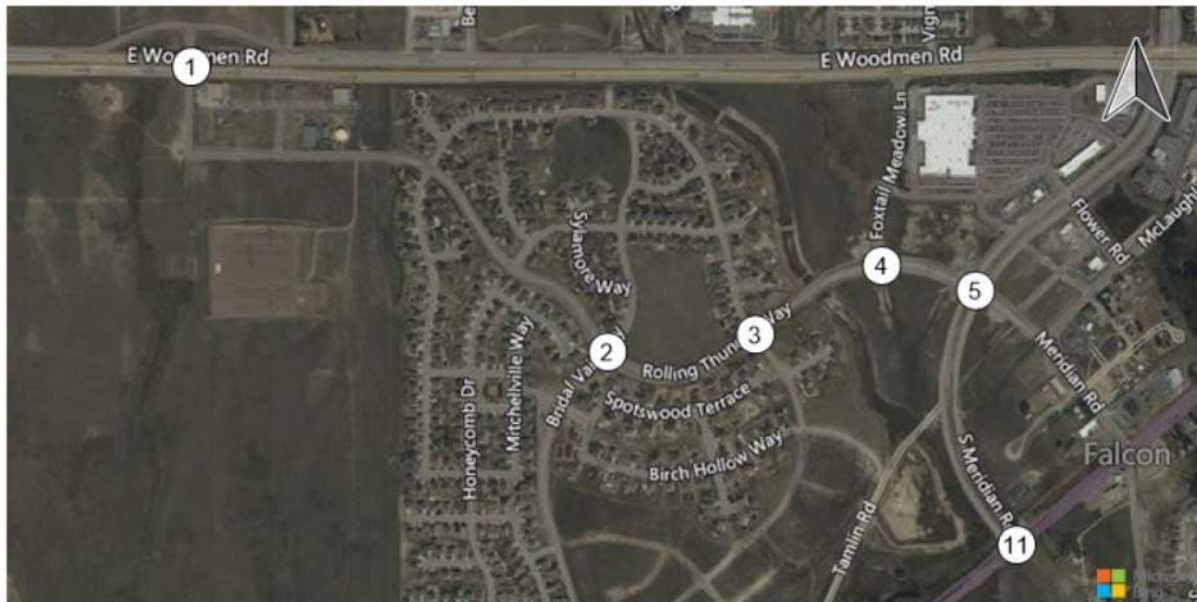
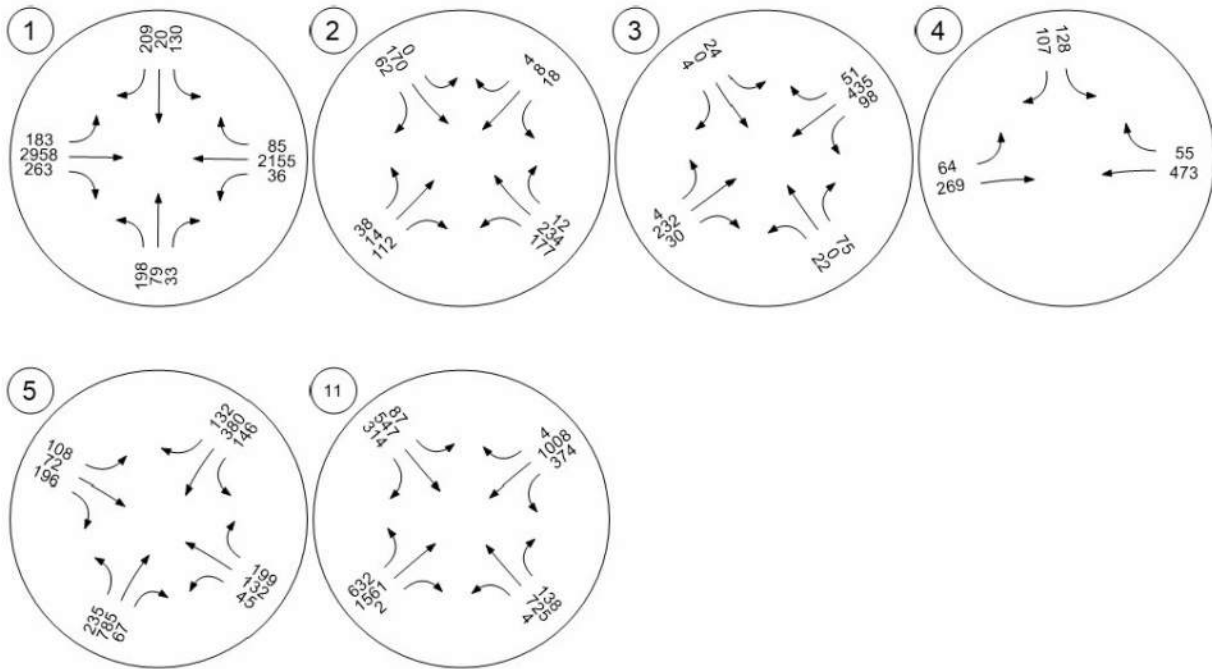
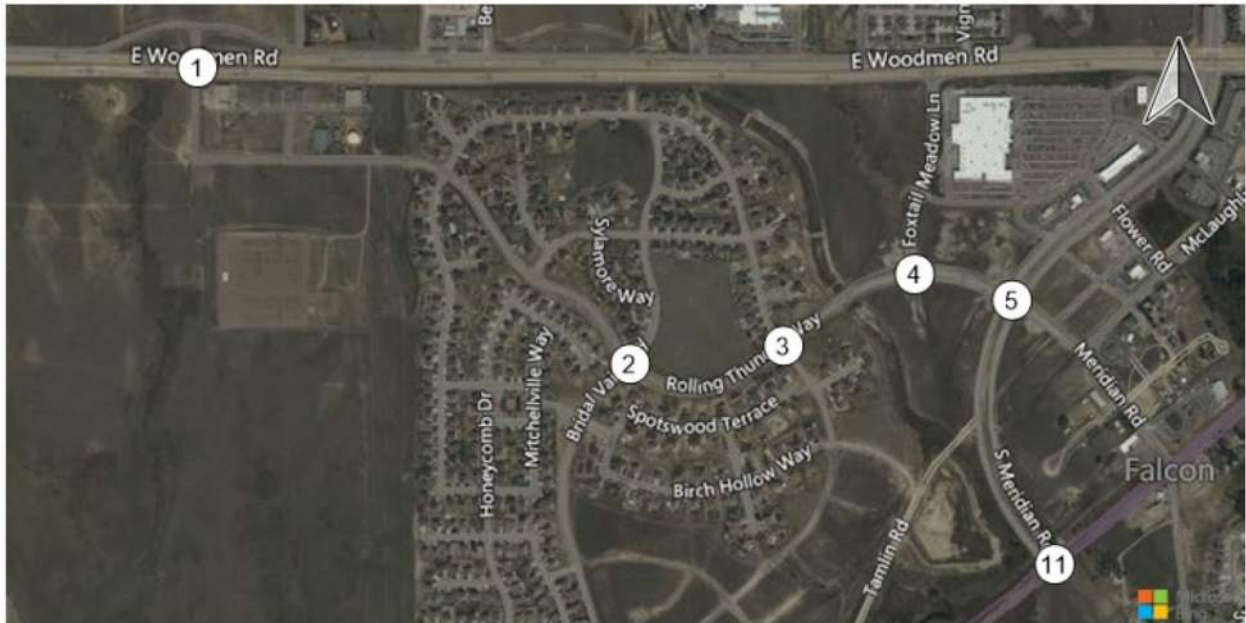


Figure 19 – Horizon (2045) Total PM Peak Hour Traffic



**Table 13 – Horizon (2045) Total AM Peak Hour LOS Summary (Without Mitigation)**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | NB Left    | 1.229 | 180.4         | F   |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | SB Left    | 0.054 | 17.4          | C   |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | SB Left    | 0.143 | 18.9          | C   |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | EB Left    | 0.254 | 11.1          | B   |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | EB Left    | 0.424 | 16.7          | B   |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | NB Thru    | 0.551 | 24.2          | C   |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Table 14 – Horizon (2045) Total PM Peak Hour LOS Summary (Without Mitigation)**

| ID | Intersection Name                               | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd                       | Signalized   | HCM 6th Edition | EB Thru    | 1.175 | 189.0         | F   |
| 2  | Rolling Thunder Way/Bridal Vail Way             | Two-way stop | HCM 6th Edition | SB Left    | 0.100 | 26.6          | D   |
| 3  | Rolling Thunder Way/Antelope Meadows Circle (E) | Two-way stop | HCM 6th Edition | SB Left    | 0.134 | 27.1          | D   |
| 4  | Rolling Thunder Way/Foxtail Meadow Ln           | Signalized   | HCM 6th Edition | SB Left    | 0.380 | 11.5          | B   |
| 5  | Rolling Thunder Way/Meridian Rd                 | Signalized   | HCM 6th Edition | WB Right   | 0.498 | 21.2          | C   |
| 11 | New Meridian Rd/US 24                           | Signalized   | HCM 6th Edition | EB Left    | 0.708 | 33.6          | C   |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Table 15 – Horizon (2045) Total AM Peak Hour LOS Summary (With Mitigation)**

| ID | Intersection Name         | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd | Signalized   | HCM 6th Edition | NB Left    | 0.822 | 44.5          | D   |

**Table 16 – Horizon (2045) Total PM Peak Hour LOS Summary (With Mitigation)**

| ID | Intersection Name         | Control Type | Method          | Worst Mvmt | V/C   | Delay (s/veh) | LOS |
|----|---------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1  | Woodmen Rd/Golden Sage Rd | Signalized   | HCM 6th Edition | WB Left    | 0.736 | 35.9          | D   |



The length of turn lanes required to accommodate the full build-out (2045) traffic was analyzed at each intersection. Table 17 shows the turn lanes that did not have adequate storage to meet El Paso County's minimum or the 95% queue length, or both. The Engineering Criteria Manual, specifically Figure 2-27 and Table 2-30, was used to determine the minimum storage lengths for both signalized and stop-controlled intersections, respectively. The 95% queue lengths were given by PTV Vistro. Matrix recommends that the development should be responsible for increasing the storage length by the difference in between the minimum required total and background storage lengths, as shown in the far right column in Table 17. Since the southbound approach of Golden Sage Road to Woodmen Road is only about 120 feet, Matrix recommends double southbound left turn lanes on Golden Sage Road. Note that these recommendations assume a 3% growth rate, which may overestimate the horizon (2045) traffic volumes for some movements. El Paso County should continue to monitor these intersections to determine improvements needed based on updated traffic counts.

**Table 17 – Horizon (2045) Inadequate Turn Lane Lengths**

| Intersection  | Turning Movement | Turn Lane Length [ft] |                 |                 |            |                 |     | Development Responsibility |
|---|------------------|-----------------------|-----------------|-----------------|------------|-----------------|-----|----------------------------|
|   |                  | Existing              | 2045 Background |                 | 2045 Total |                 |     |                            |
|   |                  |                       | 95% Queue       | Min per EPC ECM | 95% Queue  | Min per EPC ECM |     |                            |
| Woodmen Road & Golden Sage Road<br>(assumed mitigated scenario) | NBL              | 150                   | 429 (AM)        | 330             | 524 (AM)   | 380             | 50  |                            |
|   | SBL              | 120                   | 216 (PM)        | 180             | 199 (PM)   | 190             | 10  |                            |
| Rolling Thunder Way & Meridian Road                             | WBR              | 120                   | 171 (PM)        | 130             | 171 (PM)   | 130             | n/a |                            |
| Rolling Thunder Way & Bridal Vail Way                           | WBL              | 100                   | 4 (PM)          | 100             | 12 (PM)    | 150             | 50  |                            |

Since the addition of site-generated traffic to the adjacent roadway system does not warrant offsite roadway improvements, then additional connections to the future Dublin Boulevard e have any impacts to the roadway system.

Is this statement needed & if so, correct roadway?

The site will provide at least one pedestrian access to the future Rock Island Trail extension. The future Rock Island Trail is anticipated to be between Tamlin Road and US 24 in the vicinity of the site and will not be routed through the site.

Include statement regarding pedestrian routes to school.

The applicant is required to pay a road impact fee to El Paso County. The County allows for the applicant to pay three different upfront fee amounts. The applicant can either pay the full fee amount, a smaller upfront fee to the 5 mill Public Improvement District (PID), or an even smaller upfront fee amount to the 10 mill PID. The different fee amounts are shown in Table 18 below, calculated using 395 single-family dwelling units. The applicant will choose which fee method to follow at a later date. If the applicant chooses one of the PIDs, the PID will collect taxes over time.

**Table 18 – Road Impact Fee Schedule**

| Full Fee |              | 5 Mill PID |              | 10 Mill PID |              |
|----------|--------------|------------|--------------|-------------|--------------|
| Per DU   | Upfront Cost | Per DU     | Upfront Cost | Per DU      | Upfront Cost |
| \$ 3,830 | \$ 1,512,850 | \$ 2,527   | \$ 998,165   | \$ 1,221    | \$ 482,295   |

If you have any questions, please feel free to contact me at [Scott.Barnhart@matrixdesigngroup.com](mailto:Scott.Barnhart@matrixdesigngroup.com) or at (719) 575-0100. Thank you.

Sincerely,



Scott D. Barnhart, P.E., PTOE  
Senior Associate of Transportation Services

Include copies of MTCP 2040 & Corridor preservation maps with Project area shown. Include discussion of how project area works with MTCP classification of surrounding roads.



**Appendix A**

**Existing Traffic Counts**

**All Traffic Data Services**  
www.alltrafficdata.net

Date Start: 20-May-21  
Site Code: 7  
Station ID: 7  
ROLLING THUNDER WAY W.O. BRIDAL VAIL WAY

| Start Time  | 20-May-21 Thu | EB        | WB         | Total      |   |   |   |   |   |       |
|-------------|---------------|-----------|------------|------------|---|---|---|---|---|-------|
| 12:00 AM    |               | 0         | 4          | 4          |   |   |   |   |   |       |
| 01:00       |               | 1         | 2          | 3          |   |   |   |   |   |       |
| 02:00       |               | 3         | 1          | 4          |   |   |   |   |   |       |
| 03:00       |               | 1         | 2          | 3          |   |   |   |   |   |       |
| 04:00       |               | 7         | 6          | 13         |   |   |   |   |   |       |
| 05:00       |               | 14        | 25         | 39         |   |   |   |   |   |       |
| 06:00       |               | 37        | 67         | 104        |   |   |   |   |   |       |
| 07:00       |               | <b>62</b> | <b>111</b> | <b>173</b> |   |   |   |   |   |       |
| 08:00       |               | 55        | 90         | 145        |   |   |   |   |   |       |
| 09:00       |               | 45        | 69         | 114        |   |   |   |   |   |       |
| 10:00       |               | 35        | 60         | 95         |   |   |   |   |   |       |
| 11:00       |               | 62        | 79         | 141        |   |   |   |   |   |       |
| 12:00 PM    |               | 59        | 102        | 161        |   |   |   |   |   |       |
| 01:00       |               | 54        | 87         | 141        |   |   |   |   |   |       |
| 02:00       |               | 67        | 85         | 152        |   |   |   |   |   |       |
| 03:00       |               | 75        | 115        | 190        |   |   |   |   |   |       |
| 04:00       |               | 72        | 117        | 189        |   |   |   |   |   |       |
| 05:00       |               | <b>89</b> | <b>121</b> | <b>210</b> |   |   |   |   |   |       |
| 06:00       |               | 76        | 99         | 175        |   |   |   |   |   |       |
| 07:00       |               | 47        | 71         | 118        |   |   |   |   |   |       |
| 08:00       |               | 33        | 31         | 64         |   |   |   |   |   |       |
| 09:00       |               | 21        | 29         | 50         |   |   |   |   |   |       |
| 10:00       |               | 11        | 13         | 24         |   |   |   |   |   |       |
| 11:00       |               | 7         | 11         | 18         |   |   |   |   |   |       |
| Total       |               | 933       | 1397       | 2330       |   |   |   |   |   |       |
| Percent     |               | 40.0%     | 60.0%      |            |   |   |   |   |   |       |
| AM Peak     | -             | 07:00     | 07:00      | -          | - | - | - | - | - | 07:00 |
| Vol.        | -             | 62        | 111        | -          | - | - | - | - | - | 173   |
| PM Peak     | -             | 17:00     | 17:00      | -          | - | - | - | - | - | 17:00 |
| Vol.        | -             | 89        | 121        | -          | - | - | - | - | - | 210   |
| Grand Total |               | 933       | 1397       |            |   |   |   |   |   | 2330  |
| Percent     |               | 40.0%     | 60.0%      |            |   |   |   |   |   |       |
| ADT         |               | ADT 2,330 | AADT 2,330 |            |   |   |   |   |   |       |

**All Traffic Data Services**  
www.alltrafficdata.net

Date Start: 20-May-21  
Site Code: 8  
Station ID: 8  
ROLLING THUNDER WAY E.O. ANTELOPE MEADOW

| Start Time  | 20-May-21 Thu | EB         | WB         | Total      |   |   |   |   |   |       |
|-------------|---------------|------------|------------|------------|---|---|---|---|---|-------|
| 12:00 AM    |               | 0          | 4          | 4          |   |   |   |   |   |       |
| 01:00       |               | 3          | 2          | 5          |   |   |   |   |   |       |
| 02:00       |               | 2          | 2          | 4          |   |   |   |   |   |       |
| 03:00       |               | 3          | 3          | 6          |   |   |   |   |   |       |
| 04:00       |               | 6          | 5          | 11         |   |   |   |   |   |       |
| 05:00       |               | 14         | 34         | 48         |   |   |   |   |   |       |
| 06:00       |               | 58         | 83         | 141        |   |   |   |   |   |       |
| 07:00       |               | <b>128</b> | <b>124</b> | <b>252</b> |   |   |   |   |   |       |
| 08:00       |               | 119        | 95         | 214        |   |   |   |   |   |       |
| 09:00       |               | 66         | 74         | 140        |   |   |   |   |   |       |
| 10:00       |               | 42         | 63         | 105        |   |   |   |   |   |       |
| 11:00       |               | 68         | 87         | 155        |   |   |   |   |   |       |
| 12:00 PM    |               | 62         | 102        | 164        |   |   |   |   |   |       |
| 01:00       |               | 57         | 100        | 157        |   |   |   |   |   |       |
| 02:00       |               | 77         | 82         | 159        |   |   |   |   |   |       |
| 03:00       |               | 103        | 139        | 242        |   |   |   |   |   |       |
| 04:00       |               | 100        | <b>194</b> | 294        |   |   |   |   |   |       |
| 05:00       |               | <b>130</b> | 177        | <b>307</b> |   |   |   |   |   |       |
| 06:00       |               | 106        | 123        | 229        |   |   |   |   |   |       |
| 07:00       |               | 51         | 69         | 120        |   |   |   |   |   |       |
| 08:00       |               | 30         | 27         | 57         |   |   |   |   |   |       |
| 09:00       |               | 26         | 26         | 52         |   |   |   |   |   |       |
| 10:00       |               | 10         | 15         | 25         |   |   |   |   |   |       |
| 11:00       |               | 8          | 10         | 18         |   |   |   |   |   |       |
| Total       |               | 1269       | 1640       | 2909       |   |   |   |   |   |       |
| Percent     |               | 43.6%      | 56.4%      |            |   |   |   |   |   |       |
| AM Peak     | -             | 07:00      | 07:00      | -          | - | - | - | - | - | 07:00 |
| Vol.        | -             | 128        | 124        | -          | - | - | - | - | - | 252   |
| PM Peak     | -             | 17:00      | 16:00      | -          | - | - | - | - | - | 17:00 |
| Vol.        | -             | 130        | 194        | -          | - | - | - | - | - | 307   |
| Grand Total |               | 1269       | 1640       |            |   |   |   |   |   | 2909  |
| Percent     |               | 43.6%      | 56.4%      |            |   |   |   |   |   |       |
| ADT         |               | ADT 2,909  | AADT 2,909 |            |   |   |   |   |   |       |

**All Traffic Data Services**  
www.alltrafficdata.net

Date Start: 20-May-21  
Site Code: 9  
Station ID: 9  
MERIDIAN RD N.O. ROLLING THUNDER WAY

| Start Time  | 20-May-21 Thu | NB        | SB         | Total |   |   |   |   |   |       |
|-------------|---------------|-----------|------------|-------|---|---|---|---|---|-------|
| 12:00 AM    |               | 8         | 12         | 20    |   |   |   |   |   |       |
| 01:00       |               | 2         | 0          | 2     |   |   |   |   |   |       |
| 02:00       |               | 3         | 2          | 5     |   |   |   |   |   |       |
| 03:00       |               | 6         | 3          | 9     |   |   |   |   |   |       |
| 04:00       |               | 14        | 11         | 25    |   |   |   |   |   |       |
| 05:00       |               | 30        | 77         | 107   |   |   |   |   |   |       |
| 06:00       |               | 133       | 264        | 397   |   |   |   |   |   |       |
| 07:00       |               | 269       | 351        | 620   |   |   |   |   |   |       |
| 08:00       |               | 207       | 187        | 394   |   |   |   |   |   |       |
| 09:00       |               | 188       | 214        | 402   |   |   |   |   |   |       |
| 10:00       |               | 227       | 202        | 429   |   |   |   |   |   |       |
| 11:00       |               | 270       | 270        | 540   |   |   |   |   |   |       |
| 12:00 PM    |               | 253       | 248        | 501   |   |   |   |   |   |       |
| 01:00       |               | 262       | 236        | 498   |   |   |   |   |   |       |
| 02:00       |               | 352       | 265        | 617   |   |   |   |   |   |       |
| 03:00       |               | 416       | 280        | 696   |   |   |   |   |   |       |
| 04:00       |               | 502       | 269        | 771   |   |   |   |   |   |       |
| 05:00       |               | 515       | 311        | 826   |   |   |   |   |   |       |
| 06:00       |               | 323       | 282        | 605   |   |   |   |   |   |       |
| 07:00       |               | 202       | 178        | 380   |   |   |   |   |   |       |
| 08:00       |               | 113       | 113        | 226   |   |   |   |   |   |       |
| 09:00       |               | 74        | 73         | 147   |   |   |   |   |   |       |
| 10:00       |               | 39        | 41         | 80    |   |   |   |   |   |       |
| 11:00       |               | 17        | 24         | 41    |   |   |   |   |   |       |
| Total       |               | 4425      | 3913       | 8338  |   |   |   |   |   |       |
| Percent     |               | 53.1%     | 46.9%      |       |   |   |   |   |   |       |
| AM Peak     | -             | 11:00     | 07:00      | -     | - | - | - | - | - | 07:00 |
| Vol.        | -             | 270       | 351        | -     | - | - | - | - | - | 620   |
| PM Peak     | -             | 17:00     | 17:00      | -     | - | - | - | - | - | 17:00 |
| Vol.        | -             | 515       | 311        | -     | - | - | - | - | - | 826   |
| Grand Total |               | 4425      | 3913       |       |   |   |   |   |   | 8338  |
| Percent     |               | 53.1%     | 46.9%      |       |   |   |   |   |   |       |
| ADT         |               | ADT 8,338 | AADT 8,338 |       |   |   |   |   |   |       |



**All Traffic Data Services**  
www.alltrafficdata.net

Date Start: 20-May-21  
Site Code: 10  
Station ID: 10  
US 24 W.O. MERIDIAN RD

| Start Time  | 20-May-21 Thu | EB         | WB          | Total |   |   |   |   |   |       |
|-------------|---------------|------------|-------------|-------|---|---|---|---|---|-------|
| 12:00 AM    |               | 58         | 36          | 94    |   |   |   |   |   |       |
| 01:00       |               | 34         | 24          | 58    |   |   |   |   |   |       |
| 02:00       |               | 24         | 24          | 48    |   |   |   |   |   |       |
| 03:00       |               | 31         | 43          | 74    |   |   |   |   |   |       |
| 04:00       |               | 57         | 108         | 165   |   |   |   |   |   |       |
| 05:00       |               | 122        | 429         | 551   |   |   |   |   |   |       |
| 06:00       |               | 376        | 842         | 1218  |   |   |   |   |   |       |
| 07:00       |               | 500        | 977         | 1477  |   |   |   |   |   |       |
| 08:00       |               | 573        | 693         | 1266  |   |   |   |   |   |       |
| 09:00       |               | 470        | 629         | 1099  |   |   |   |   |   |       |
| 10:00       |               | 490        | 506         | 996   |   |   |   |   |   |       |
| 11:00       |               | 520        | 592         | 1112  |   |   |   |   |   |       |
| 12:00 PM    |               | 506        | 537         | 1043  |   |   |   |   |   |       |
| 01:00       |               | 573        | 500         | 1073  |   |   |   |   |   |       |
| 02:00       |               | 643        | 488         | 1131  |   |   |   |   |   |       |
| 03:00       |               | 606        | 495         | 1101  |   |   |   |   |   |       |
| 04:00       |               | 573        | 676         | 1249  |   |   |   |   |   |       |
| 05:00       |               | 595        | 566         | 1161  |   |   |   |   |   |       |
| 06:00       |               | 655        | 699         | 1354  |   |   |   |   |   |       |
| 07:00       |               | 473        | 408         | 881   |   |   |   |   |   |       |
| 08:00       |               | 354        | 265         | 619   |   |   |   |   |   |       |
| 09:00       |               | 218        | 160         | 378   |   |   |   |   |   |       |
| 10:00       |               | 154        | 97          | 251   |   |   |   |   |   |       |
| 11:00       |               | 112        | 55          | 167   |   |   |   |   |   |       |
| Total       |               | 8717       | 9849        | 18566 |   |   |   |   |   |       |
| Percent     |               | 47.0%      | 53.0%       |       |   |   |   |   |   |       |
| AM Peak     | -             | 08:00      | 07:00       | -     | - | - | - | - | - | 07:00 |
| Vol.        | -             | 573        | 977         | -     | - | - | - | - | - | 1477  |
| PM Peak     | -             | 18:00      | 18:00       | -     | - | - | - | - | - | 18:00 |
| Vol.        | -             | 655        | 699         | -     | - | - | - | - | - | 1354  |
| Grand Total |               | 8717       | 9849        |       |   |   |   |   |   | 18566 |
| Percent     |               | 47.0%      | 53.0%       |       |   |   |   |   |   |       |
| ADT         |               | ADT 18,566 | AADT 18,566 |       |   |   |   |   |   |       |



(303) 216-2439  
www.alltrafficdata.net

**Location:** 1 GOLDEN SAGE RD & WOODMEN RD AM

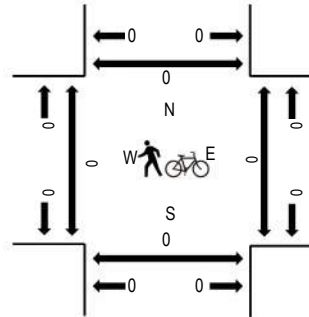
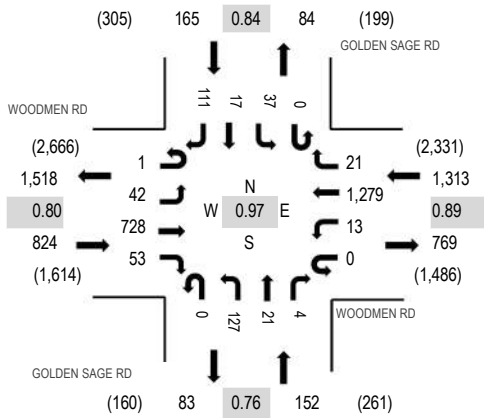
**Date:** Thursday, May 20, 2021

**Peak Hour:** 07:00 AM - 08:00 AM

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

**Peak Hour - All Vehicles**

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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval<br>Start Time | WOODMEN RD<br>Eastbound |      |       |       | WOODMEN RD<br>Westbound |      |       |       | GOLDEN SAGE RD<br>Northbound |      |      |       | GOLDEN SAGE RD<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------|------|-------|-------|-------------------------|------|-------|-------|------------------------------|------|------|-------|------------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                  | Left | Thru  | Right | U-Turn                  | Left | Thru  | Right | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right |       |                 | West                 | East | South | North |
| 7:00 AM                | 1                       | 4    | 159   | 9     | 0                       | 2    | 325   | 4     | 0                            | 29   | 6    | 2     | 0                            | 7    | 10   | 27    | 585   | 2,454           | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                       | 8    | 152   | 9     | 0                       | 6    | 358   | 6     | 0                            | 43   | 6    | 1     | 0                            | 6    | 4    | 26    | 625   | 2,368           | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                       | 17   | 177   | 9     | 0                       | 3    | 311   | 8     | 0                            | 31   | 5    | 0     | 0                            | 11   | 2    | 36    | 610   | 2,267           | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0                       | 13   | 240   | 26    | 0                       | 2    | 285   | 3     | 0                            | 24   | 4    | 1     | 0                            | 13   | 1    | 22    | 634   | 2,231           | 0                    | 0    | 0     | 0     |
| 8:00 AM                | 0                       | 12   | 174   | 26    | 0                       | 5    | 235   | 6     | 0                            | 13   | 4    | 0     | 0                            | 8    | 1    | 15    | 499   | 2,057           | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 1                       | 22   | 169   | 12    | 1                       | 1    | 242   | 10    | 0                            | 24   | 10   | 1     | 0                            | 8    | 2    | 21    | 524   |                 | 0                    | 0    | 0     | 0     |
| 8:30 AM                | 0                       | 10   | 164   | 12    | 1                       | 0    | 307   | 9     | 0                            | 20   | 4    | 4     | 0                            | 16   | 3    | 24    | 574   |                 | 0                    | 0    | 0     | 0     |
| 8:45 AM                | 0                       | 16   | 159   | 13    | 0                       | 1    | 193   | 7     | 0                            | 23   | 5    | 1     | 0                            | 11   | 1    | 30    | 460   |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 2                       | 102  | 1,394 | 116   | 2                       | 20   | 2,256 | 53    | 0                            | 207  | 44   | 10    | 0                            | 80   | 24   | 201   | 4,511 |                 | 0                    | 0    | 0     | 0     |
| Peak Hour              | 1                       | 42   | 728   | 53    | 0                       | 13   | 1,279 | 21    | 0                            | 127  | 21   | 4     | 0                            | 37   | 17   | 111   | 2,454 |                 | 0                    | 0    | 0     | 0     |



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**Location:** 2 BRIDAL VAIL WAY & ROLLING THUNDER WAY AM

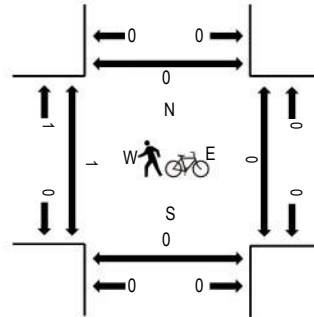
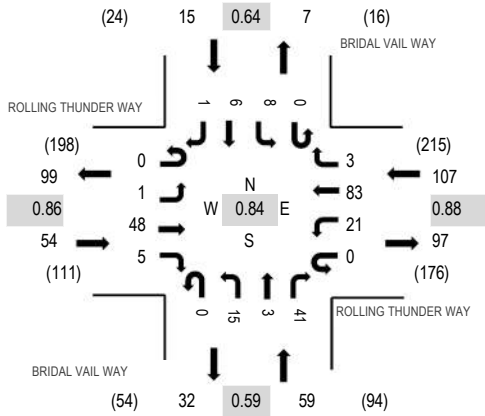
**Date:** Thursday, May 20, 2021

**Peak Hour:** 07:15 AM - 08:15 AM

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

**Peak Hour - All Vehicles**

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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval<br>Start Time | ROLLING THUNDER WAY<br>Eastbound |      |      |       | ROLLING THUNDER WAY<br>Westbound |      |      |       | BRIDAL VAIL WAY<br>Northbound |      |      | BRIDAL VAIL WAY<br>Southbound |        |      |      | Total | Rolling<br>Hour | Pedestrian Crossings |      |      |       |       |
|------------------------|----------------------------------|------|------|-------|----------------------------------|------|------|-------|-------------------------------|------|------|-------------------------------|--------|------|------|-------|-----------------|----------------------|------|------|-------|-------|
|                        | U-Turn                           | Left | Thru | Right | U-Turn                           | Left | Thru | Right | U-Turn                        | Left | Thru | Right                         | U-Turn | Left | Thru |       |                 | Right                | West | East | South | North |
| 7:00 AM                | 0                                | 2    | 13   | 0     | 0                                | 4    | 24   | 0     | 0                             | 3    | 0    | 9                             | 0      | 0    | 0    | 0     | 55              | 233                  | 0    | 0    | 0     | 0     |
| 7:15 AM                | 0                                | 0    | 11   | 1     | 0                                | 2    | 29   | 1     | 0                             | 6    | 1    | 18                            | 0      | 0    | 1    | 0     | 70              | 235                  | 1    | 0    | 0     | 0     |
| 7:30 AM                | 0                                | 0    | 12   | 0     | 0                                | 5    | 19   | 0     | 0                             | 3    | 1    | 8                             | 0      | 1    | 0    | 0     | 49              | 215                  | 0    | 0    | 0     | 0     |
| 7:45 AM                | 0                                | 0    | 13   | 2     | 0                                | 9    | 18   | 1     | 0                             | 3    | 1    | 6                             | 0      | 2    | 4    | 0     | 59              | 219                  | 0    | 0    | 0     | 0     |
| 8:00 AM                | 0                                | 1    | 12   | 2     | 0                                | 5    | 17   | 1     | 0                             | 3    | 0    | 9                             | 0      | 5    | 1    | 1     | 57              | 211                  | 0    | 0    | 0     | 0     |
| 8:15 AM                | 0                                | 0    | 12   | 2     | 0                                | 1    | 21   | 1     | 0                             | 2    | 1    | 9                             | 0      | 0    | 1    | 0     | 50              |                      | 0    | 0    | 0     | 0     |
| 8:30 AM                | 0                                | 0    | 17   | 1     | 0                                | 7    | 18   | 2     | 0                             | 1    | 1    | 2                             | 0      | 1    | 1    | 2     | 53              |                      | 0    | 0    | 0     | 0     |
| 8:45 AM                | 0                                | 0    | 9    | 1     | 0                                | 3    | 26   | 1     | 0                             | 1    | 1    | 5                             | 0      | 2    | 1    | 1     | 51              |                      | 0    | 0    | 0     | 1     |
| Count Total            | 0                                | 3    | 99   | 9     | 0                                | 36   | 172  | 7     | 0                             | 22   | 6    | 66                            | 0      | 11   | 9    | 4     | 444             |                      | 1    | 0    | 0     | 1     |
| Peak Hour              | 0                                | 1    | 48   | 5     | 0                                | 21   | 83   | 3     | 0                             | 15   | 3    | 41                            | 0      | 8    | 6    | 1     | 235             |                      | 1    | 0    | 0     | 0     |



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**Location:** 3 ANTELOPE MEADOWS CIRCLE & ROLLING THUNDER WAY AM

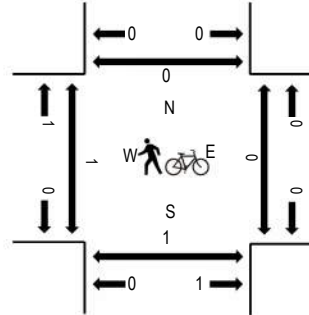
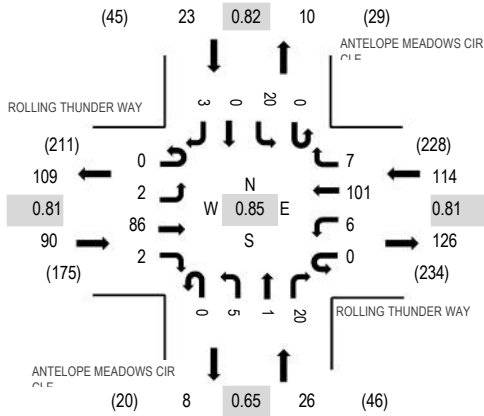
**Date:** Thursday, May 20, 2021

**Peak Hour:** 07:00 AM - 08:00 AM

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

**Peak Hour - All Vehicles**

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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | ROLLING THUNDER WAY Eastbound |      |      |       | ROLLING THUNDER WAY Westbound |      |      |       | ANTELOPE MEADOWS NORTHBOUND |      |      |       | ANTELOPE MEADOWS SOUTHBOUND |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|-----------------------------|------|------|-------|-----------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                      | Left | Thru | Right | U-Turn                      | Left | Thru | Right |       |              | West                 | East | South | North |
| 7:00 AM             | 0                             | 1    | 21   | 0     | 0                             | 1    | 23   | 1     | 0                           | 1    | 0    | 9     | 0                           | 6    | 0    | 1     | 64    | 253          | 0                    | 0    | 1     | 0     |
| 7:15 AM             | 0                             | 0    | 29   | 0     | 0                             | 1    | 28   | 1     | 0                           | 2    | 0    | 7     | 0                           | 5    | 0    | 1     | 74    | 250          | 0                    | 0    | 0     | 0     |
| 7:30 AM             | 0                             | 0    | 21   | 0     | 0                             | 3    | 24   | 1     | 0                           | 0    | 0    | 3     | 0                           | 6    | 0    | 0     | 58    | 230          | 1                    | 0    | 0     | 0     |
| 7:45 AM             | 0                             | 1    | 15   | 2     | 0                             | 1    | 26   | 4     | 0                           | 2    | 1    | 1     | 0                           | 3    | 0    | 1     | 57    | 235          | 0                    | 0    | 0     | 0     |
| 8:00 AM             | 0                             | 0    | 24   | 2     | 0                             | 1    | 18   | 3     | 0                           | 3    | 0    | 4     | 0                           | 4    | 0    | 2     | 61    | 241          | 0                    | 0    | 0     | 0     |
| 8:15 AM             | 0                             | 0    | 21   | 1     | 0                             | 0    | 19   | 4     | 0                           | 2    | 0    | 4     | 0                           | 2    | 0    | 1     | 54    |              | 0                    | 0    | 0     | 0     |
| 8:30 AM             | 0                             | 0    | 20   | 1     | 0                             | 5    | 24   | 6     | 0                           | 2    | 0    | 0     | 0                           | 4    | 0    | 1     | 63    |              | 0                    | 0    | 0     | 0     |
| 8:45 AM             | 0                             | 0    | 16   | 0     | 0                             | 2    | 26   | 6     | 0                           | 3    | 0    | 2     | 0                           | 7    | 0    | 1     | 63    |              | 0                    | 0    | 0     | 0     |
| Count Total         | 0                             | 2    | 167  | 6     | 0                             | 14   | 188  | 26    | 0                           | 15   | 1    | 30    | 0                           | 37   | 0    | 8     | 494   |              | 1                    | 0    | 1     | 0     |
| Peak Hour           | 0                             | 2    | 86   | 2     | 0                             | 6    | 101  | 7     | 0                           | 5    | 1    | 20    | 0                           | 20   | 0    | 3     | 253   |              | 1                    | 0    | 1     | 0     |





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**Location:** 4 FOXTAIL MEADOW LANE & ROLLING THUNDER WAY AM

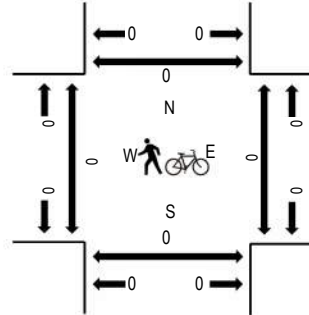
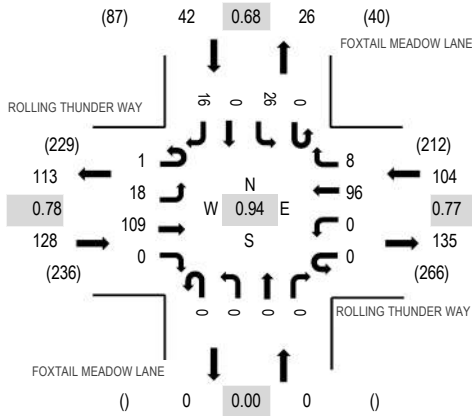
**Date:** Thursday, May 20, 2021

**Peak Hour:** 07:00 AM - 08:00 AM

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

**Peak Hour - All Vehicles**

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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval Start Time | ROLLING THUNDER WAY Eastbound |      |      |       | ROLLING THUNDER WAY Westbound |      |      |       | FOXTAIL MEADOW LANE Northbound |      |      |       | FOXTAIL MEADOW LANE Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|---------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|--------------------------------|------|------|-------|--------------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                     | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                         | Left | Thru | Right | U-Turn                         | Left | Thru | Right |       |              | West                 | East | South | North |
| 7:00 AM             | 1                             | 7    | 29   | 0     | 0                             | 0    | 24   | 0     | 0                              | 0    | 0    | 0     | 0                              | 5    | 0    | 5     | 71    | 274          | 0                    | 0    | 0     | 0     |
| 7:15 AM             | 0                             | 7    | 34   | 0     | 0                             | 0    | 20   | 3     | 0                              | 0    | 0    | 0     | 0                              | 4    | 0    | 5     | 73    | 261          | 0                    | 0    | 0     | 0     |
| 7:30 AM             | 0                             | 1    | 29   | 0     | 0                             | 0    | 28   | 1     | 0                              | 0    | 0    | 0     | 0                              | 9    | 0    | 3     | 71    | 261          | 0                    | 0    | 0     | 0     |
| 7:45 AM             | 0                             | 3    | 17   | 0     | 0                             | 0    | 24   | 4     | 0                              | 0    | 0    | 0     | 0                              | 8    | 0    | 3     | 59    | 256          | 0                    | 0    | 0     | 0     |
| 8:00 AM             | 0                             | 2    | 29   | 0     | 0                             | 0    | 16   | 0     | 0                              | 0    | 0    | 0     | 0                              | 5    | 0    | 6     | 58    | 261          | 0                    | 0    | 0     | 0     |
| 8:15 AM             | 0                             | 1    | 26   | 0     | 0                             | 0    | 23   | 3     | 0                              | 0    | 0    | 0     | 0                              | 17   | 0    | 3     | 73    |              | 0                    | 0    | 0     | 0     |
| 8:30 AM             | 0                             | 3    | 21   | 0     | 0                             | 0    | 32   | 3     | 0                              | 0    | 0    | 0     | 0                              | 5    | 0    | 2     | 66    |              | 0                    | 0    | 0     | 0     |
| 8:45 AM             | 0                             | 1    | 25   | 0     | 1                             | 0    | 29   | 1     | 0                              | 0    | 0    | 0     | 0                              | 2    | 0    | 5     | 64    |              | 0                    | 0    | 0     | 4     |
| Count Total         | 1                             | 25   | 210  | 0     | 1                             | 0    | 196  | 15    | 0                              | 0    | 0    | 0     | 0                              | 55   | 0    | 32    | 535   |              | 0                    | 0    | 0     | 4     |
| Peak Hour           | 1                             | 18   | 109  | 0     | 0                             | 0    | 96   | 8     | 0                              | 0    | 0    | 0     | 0                              | 26   | 0    | 16    | 274   |              | 0                    | 0    | 0     | 0     |



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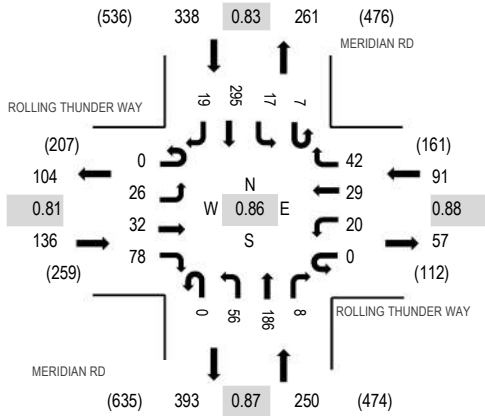
**Location:** 5 MERIDIAN RD & ROLLING THUNDER WAY AM

**Date:** Thursday, May 20, 2021

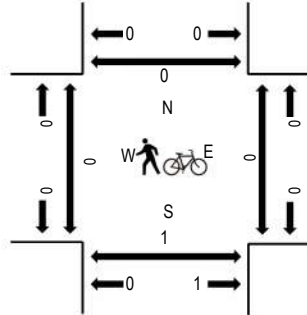
**Peak Hour:** 07:00 AM - 08:00 AM

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

**Peak Hour - All Vehicles**



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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval<br>Start Time | ROLLING THUNDER WAY<br>Eastbound |      |      |       | ROLLING THUNDER WAY<br>Westbound |      |      |       | MERIDIAN RD<br>Northbound |      |      | MERIDIAN RD<br>Southbound |        |      |      | Total | Rolling<br>Hour | Pedestrian Crossings |      |      |       |       |
|------------------------|----------------------------------|------|------|-------|----------------------------------|------|------|-------|---------------------------|------|------|---------------------------|--------|------|------|-------|-----------------|----------------------|------|------|-------|-------|
|                        | U-Turn                           | Left | Thru | Right | U-Turn                           | Left | Thru | Right | U-Turn                    | Left | Thru | Right                     | U-Turn | Left | Thru |       |                 | Right                | West | East | South | North |
| 7:00 AM                | 0                                | 6    | 11   | 17    | 0                                | 3    | 9    | 5     | 0                         | 12   | 47   | 0                         | 1      | 7    | 74   | 3     | 195             | 815                  | 0    | 0    | 0     | 0     |
| 7:15 AM                | 0                                | 12   | 4    | 22    | 0                                | 5    | 6    | 15    | 0                         | 16   | 49   | 2                         | 4      | 5    | 64   | 2     | 206             | 770                  | 0    | 0    | 0     | 0     |
| 7:30 AM                | 0                                | 5    | 8    | 26    | 0                                | 9    | 5    | 11    | 0                         | 20   | 49   | 3                         | 0      | 4    | 91   | 7     | 238             | 741                  | 0    | 0    | 0     | 0     |
| 7:45 AM                | 0                                | 3    | 9    | 13    | 0                                | 3    | 9    | 11    | 0                         | 8    | 41   | 3                         | 2      | 1    | 66   | 7     | 176             | 667                  | 0    | 0    | 0     | 0     |
| 8:00 AM                | 0                                | 8    | 7    | 18    | 0                                | 1    | 6    | 11    | 0                         | 7    | 33   | 2                         | 0      | 5    | 49   | 3     | 150             | 615                  | 0    | 0    | 1     | 0     |
| 8:15 AM                | 0                                | 6    | 7    | 30    | 0                                | 3    | 4    | 11    | 0                         | 18   | 46   | 6                         | 0      | 3    | 39   | 4     | 177             |                      | 0    | 0    | 0     | 0     |
| 8:30 AM                | 0                                | 6    | 7    | 13    | 0                                | 2    | 11   | 5     | 0                         | 18   | 45   | 5                         | 1      | 5    | 40   | 6     | 164             |                      | 0    | 0    | 0     | 0     |
| 8:45 AM                | 0                                | 3    | 4    | 14    | 0                                | 2    | 5    | 9     | 0                         | 15   | 27   | 2                         | 4      | 2    | 31   | 6     | 124             |                      | 0    | 0    | 0     | 0     |
| Count Total            | 0                                | 49   | 57   | 153   | 0                                | 28   | 55   | 78    | 0                         | 114  | 337  | 23                        | 12     | 32   | 454  | 38    | 1,430           |                      | 0    | 0    | 1     | 0     |
| Peak Hour              | 0                                | 26   | 32   | 78    | 0                                | 20   | 29   | 42    | 0                         | 56   | 186  | 8                         | 7      | 17   | 295  | 19    | 815             |                      | 0    | 0    | 0     | 0     |



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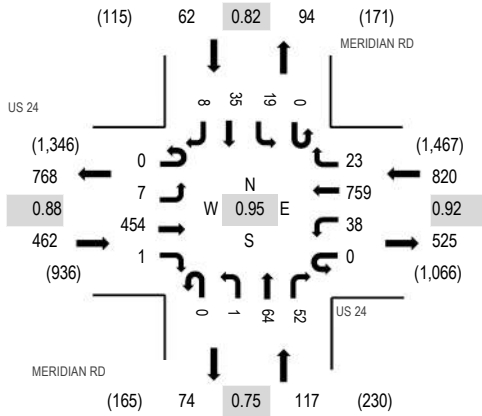
Location: 6 MERIDIAN RD & US 24 AM

Date: Thursday, May 20, 2021

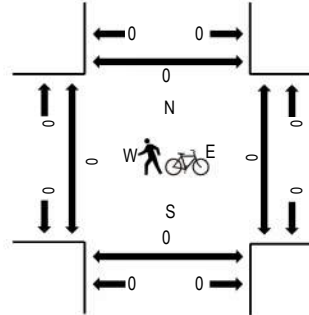
Peak Hour: 07:00 AM - 08:00 AM

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

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval<br>Start Time | US 24<br>Eastbound |      |      |       | US 24<br>Westbound |      |       |       | MERIDIAN RD<br>Northbound |      |      | MERIDIAN RD<br>Southbound |        |      |      | Total | Rolling<br>Hour | Pedestrian Crossings |      |      |       |       |
|------------------------|--------------------|------|------|-------|--------------------|------|-------|-------|---------------------------|------|------|---------------------------|--------|------|------|-------|-----------------|----------------------|------|------|-------|-------|
|                        | U-Turn             | Left | Thru | Right | U-Turn             | Left | Thru  | Right | U-Turn                    | Left | Thru | Right                     | U-Turn | Left | Thru |       |                 | Right                | West | East | South | North |
| 7:00 AM                | 0                  | 0    | 108  | 0     | 0                  | 8    | 205   | 7     | 0                         | 1    | 10   | 8                         | 0      | 7    | 8    | 3     | 365             | 1,461                | 0    | 0    | 0     | 0     |
| 7:15 AM                | 0                  | 3    | 99   | 1     | 0                  | 7    | 212   | 4     | 0                         | 0    | 23   | 19                        | 0      | 3    | 7    | 1     | 379             | 1,385                | 0    | 0    | 0     | 0     |
| 7:30 AM                | 0                  | 1    | 119  | 0     | 0                  | 9    | 198   | 6     | 0                         | 0    | 19   | 14                        | 0      | 5    | 11   | 3     | 385             | 1,371                | 0    | 0    | 0     | 0     |
| 7:45 AM                | 0                  | 3    | 128  | 0     | 0                  | 14   | 144   | 6     | 0                         | 0    | 12   | 11                        | 0      | 4    | 9    | 1     | 332             | 1,324                | 0    | 0    | 0     | 0     |
| 8:00 AM                | 0                  | 2    | 102  | 0     | 0                  | 11   | 129   | 5     | 0                         | 0    | 11   | 17                        | 0      | 4    | 6    | 2     | 289             | 1,287                | 0    | 0    | 0     | 0     |
| 8:15 AM                | 0                  | 8    | 134  | 0     | 0                  | 15   | 155   | 4     | 0                         | 0    | 15   | 17                        | 0      | 7    | 8    | 2     | 365             |                      | 0    | 0    | 0     | 0     |
| 8:30 AM                | 0                  | 4    | 110  | 1     | 0                  | 21   | 145   | 6     | 0                         | 1    | 7    | 25                        | 0      | 6    | 9    | 3     | 338             |                      | 0    | 0    | 0     | 0     |
| 8:45 AM                | 0                  | 3    | 109  | 1     | 0                  | 15   | 140   | 1     | 0                         | 1    | 11   | 8                         | 0      | 2    | 4    | 0     | 295             |                      | 0    | 0    | 0     | 0     |
| Count Total            | 0                  | 24   | 909  | 3     | 0                  | 100  | 1,328 | 39    | 0                         | 3    | 108  | 119                       | 0      | 38   | 62   | 15    | 2,748           |                      | 0    | 0    | 0     | 0     |
| Peak Hour              | 0                  | 7    | 454  | 1     | 0                  | 38   | 759   | 23    | 0                         | 1    | 64   | 52                        | 0      | 19   | 35   | 8     | 1,461           |                      | 0    | 0    | 0     | 0     |



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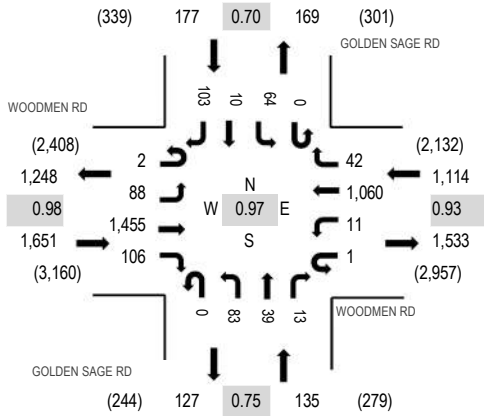
**Location:** 1 GOLDEN SAGE RD & WOODMEN RD PM

**Date:** Thursday, May 20, 2021

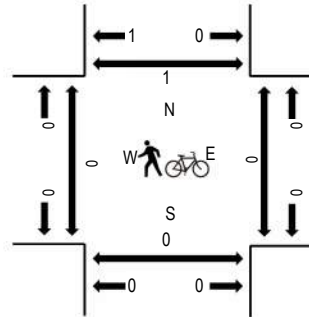
**Peak Hour:** 04:00 PM - 05:00 PM

**Peak 15-Minutes:** 04:30 PM - 04:45 PM

**Peak Hour - All Vehicles**



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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval<br>Start Time | WOODMEN RD<br>Eastbound |      |       |       | WOODMEN RD<br>Westbound |      |       |       | GOLDEN SAGE RD<br>Northbound |      |      |       | GOLDEN SAGE RD<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------|------|-------|-------|-------------------------|------|-------|-------|------------------------------|------|------|-------|------------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                  | Left | Thru  | Right | U-Turn                  | Left | Thru  | Right | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                       | 25   | 354   | 35    | 0                       | 6    | 260   | 11    | 0                            | 20   | 12   | 2     | 0                            | 21   | 2    | 19    | 767   | 3,077           | 0                    | 0    | 0     | 0     |
| 4:15 PM                | 1                       | 24   | 352   | 30    | 0                       | 3    | 269   | 9     | 0                            | 31   | 12   | 7     | 0                            | 12   | 3    | 23    | 776   | 3,033           | 0                    | 0    | 0     | 0     |
| 4:30 PM                | 1                       | 22   | 375   | 12    | 1                       | 1    | 285   | 12    | 0                            | 14   | 9    | 4     | 0                            | 20   | 3    | 33    | 792   | 2,989           | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                       | 17   | 374   | 29    | 0                       | 1    | 246   | 10    | 0                            | 18   | 6    | 0     | 0                            | 11   | 2    | 28    | 742   | 2,926           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                       | 13   | 334   | 20    | 0                       | 3    | 267   | 9     | 0                            | 31   | 3    | 1     | 0                            | 13   | 7    | 22    | 723   | 2,833           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                       | 19   | 363   | 25    | 2                       | 2    | 228   | 10    | 0                            | 34   | 6    | 8     | 0                            | 12   | 6    | 17    | 732   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                       | 20   | 342   | 16    | 0                       | 1    | 247   | 8     | 0                            | 25   | 2    | 3     | 0                            | 27   | 13   | 25    | 729   |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                       | 26   | 309   | 22    | 1                       | 1    | 230   | 9     | 0                            | 22   | 7    | 2     | 0                            | 7    | 1    | 12    | 649   |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 2                       | 166  | 2,803 | 189   | 4                       | 18   | 2,032 | 78    | 0                            | 195  | 57   | 27    | 0                            | 123  | 37   | 179   | 5,910 |                 | 0                    | 0    | 0     | 0     |
| Peak Hour              | 2                       | 88   | 1,455 | 106   | 1                       | 11   | 1,060 | 42    | 0                            | 83   | 39   | 13    | 0                            | 64   | 10   | 103   | 3,077 |                 | 0                    | 0    | 0     | 0     |





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**Location:** 2 BRIDAL VAIL WAY & ROLLING THUNDER WAY PM

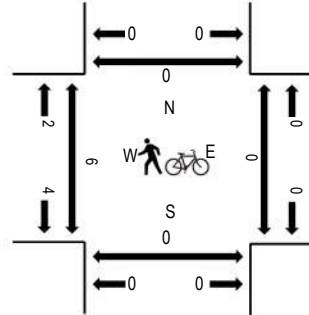
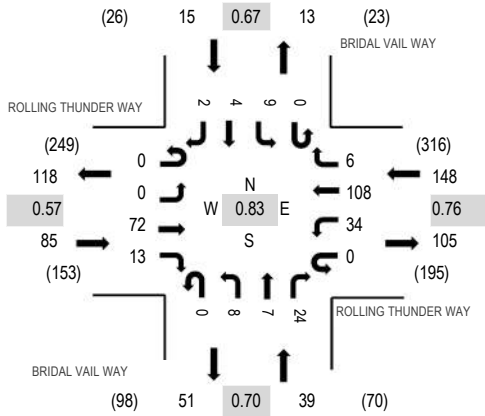
**Date:** Thursday, May 20, 2021

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

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

**Peak Hour - All Vehicles**

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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval<br>Start Time | ROLLING THUNDER WAY<br>Eastbound |      |      |       | ROLLING THUNDER WAY<br>Westbound |      |      |       | BRIDAL VAIL WAY<br>Northbound |      |      |       | BRIDAL VAIL WAY<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|----------------------------------|------|------|-------|----------------------------------|------|------|-------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                           | Left | Thru | Right | U-Turn                           | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                                | 0    | 14   | 2     | 0                                | 10   | 35   | 1     | 0                             | 3    | 3    | 6     | 0                             | 1    | 2    | 1     | 78    | 284             | 0                    | 0    | 0     | 0     |
| 4:15 PM                | 0                                | 0    | 22   | 3     | 0                                | 12   | 38   | 1     | 0                             | 0    | 2    | 4     | 0                             | 2    | 1    | 0     | 85    | 282             | 0                    | 0    | 0     | 1     |
| 4:30 PM                | 0                                | 0    | 18   | 1     | 0                                | 11   | 21   | 1     | 0                             | 0    | 0    | 7     | 0                             | 2    | 0    | 1     | 62    | 263             | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                                | 0    | 10   | 3     | 0                                | 6    | 22   | 0     | 0                             | 5    | 2    | 5     | 0                             | 4    | 1    | 1     | 59    | 287             | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                                | 0    | 9    | 4     | 0                                | 12   | 40   | 3     | 0                             | 1    | 1    | 3     | 0                             | 0    | 2    | 1     | 76    | 281             | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                                | 0    | 20   | 2     | 0                                | 5    | 27   | 2     | 0                             | 1    | 1    | 6     | 0                             | 2    | 0    | 0     | 66    |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                                | 0    | 33   | 4     | 0                                | 11   | 19   | 1     | 0                             | 1    | 3    | 10    | 0                             | 3    | 1    | 0     | 86    |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                                | 0    | 8    | 0     | 0                                | 5    | 31   | 2     | 0                             | 1    | 0    | 5     | 0                             | 1    | 0    | 0     | 53    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                                | 0    | 134  | 19    | 0                                | 72   | 233  | 11    | 0                             | 12   | 12   | 46    | 0                             | 15   | 7    | 4     | 565   |                 | 0                    | 0    | 0     | 1     |
| Peak Hour              | 0                                | 0    | 72   | 13    | 0                                | 34   | 108  | 6     | 0                             | 8    | 7    | 24    | 0                             | 9    | 4    | 2     | 287   |                 | 0                    | 0    | 0     | 0     |



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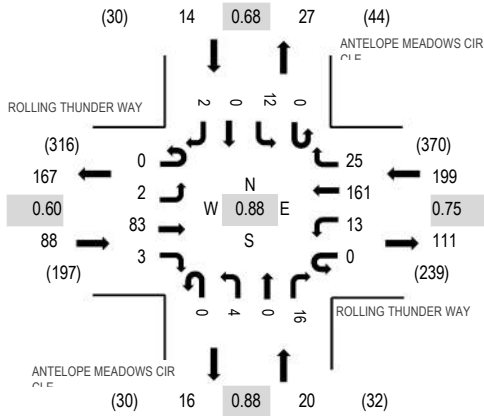
**Location:** 3 ANTELOPE MEADOWS CIRCLE & ROLLING THUNDER WAY PM

**Date:** Thursday, May 20, 2021

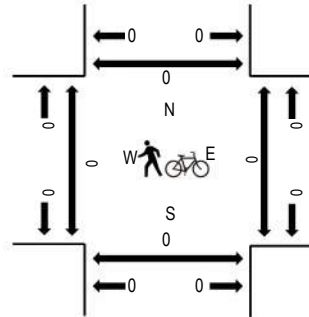
**Peak Hour:** 04:15 PM - 05:15 PM

**Peak 15-Minutes:** 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval<br>Start Time | ROLLING THUNDER WAY<br>Eastbound |      |      |       | ROLLING THUNDER WAY<br>Westbound |      |      |       | ANTELOPE MEADOWS<br>Northbound |      |      |       | ANTELOPE MEADOWS<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|----------------------------------|------|------|-------|----------------------------------|------|------|-------|--------------------------------|------|------|-------|--------------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                           | Left | Thru | Right | U-Turn                           | Left | Thru | Right | U-Turn                         | Left | Thru | Right | U-Turn                         | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                                | 0    | 20   | 2     | 0                                | 1    | 46   | 7     | 0                              | 0    | 0    | 4     | 0                              | 3    | 0    | 1     | 84    | 314             | 0                    | 0    | 1     | 0     |
| 4:15 PM                | 0                                | 1    | 23   | 2     | 0                                | 2    | 48   | 1     | 0                              | 2    | 0    | 4     | 0                              | 3    | 0    | 1     | 87    | 321             | 0                    | 0    | 0     | 0     |
| 4:30 PM                | 0                                | 1    | 25   | 0     | 0                                | 4    | 32   | 9     | 0                              | 0    | 0    | 5     | 0                              | 1    | 0    | 0     | 77    | 312             | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                                | 0    | 20   | 1     | 0                                | 2    | 27   | 8     | 0                              | 1    | 0    | 5     | 0                              | 2    | 0    | 0     | 66    | 315             | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                                | 0    | 15   | 0     | 0                                | 5    | 54   | 7     | 0                              | 1    | 0    | 2     | 0                              | 6    | 0    | 1     | 91    | 315             | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                                | 0    | 26   | 1     | 0                                | 7    | 30   | 5     | 0                              | 1    | 0    | 3     | 0                              | 4    | 0    | 1     | 78    |                 | 1                    | 1    | 0     | 0     |
| 5:30 PM                | 0                                | 0    | 44   | 1     | 0                                | 0    | 31   | 3     | 0                              | 0    | 0    | 0     | 0                              | 1    | 0    | 0     | 80    |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                                | 0    | 15   | 0     | 0                                | 2    | 37   | 2     | 0                              | 1    | 0    | 3     | 0                              | 5    | 0    | 1     | 66    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                                | 2    | 188  | 7     | 0                                | 23   | 305  | 42    | 0                              | 6    | 0    | 26    | 0                              | 25   | 0    | 5     | 629   |                 | 1                    | 1    | 1     | 0     |
| Peak Hour              | 0                                | 2    | 83   | 3     | 0                                | 13   | 161  | 25    | 0                              | 4    | 0    | 16    | 0                              | 12   | 0    | 2     | 321   |                 | 0                    | 0    | 0     | 0     |



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**Location:** 4 FOXTAIL MEADOW LANE & ROLLING THUNDER WAY PM

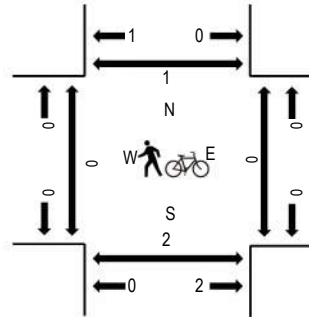
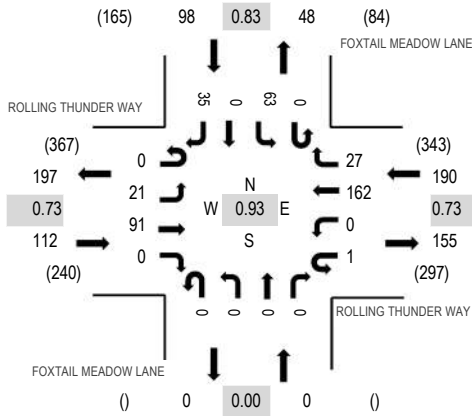
**Date:** Thursday, May 20, 2021

**Peak Hour:** 04:15 PM - 05:15 PM

**Peak 15-Minutes:** 04:15 PM - 04:30 PM

**Peak Hour - All Vehicles**

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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval<br>Start Time | ROLLING THUNDER WAY<br>Eastbound |      |      |       | ROLLING THUNDER WAY<br>Westbound |      |      |       | FOXTAIL MEADOW LANE<br>Northbound |      |      |       | FOXTAIL MEADOW LANE<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |   |   |
|------------------------|----------------------------------|------|------|-------|----------------------------------|------|------|-------|-----------------------------------|------|------|-------|-----------------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|---|---|
|                        | U-Turn                           | Left | Thru | Right | U-Turn                           | Left | Thru | Right | U-Turn                            | Left | Thru | Right | U-Turn                            | Left | Thru | Right |       |                 | West                 | East | South | North |   |   |
| 4:00 PM                | 0                                | 4    | 23   | 0     | 0                                | 0    | 0    | 43    | 3                                 | 0    | 0    | 0     | 0                                 | 0    | 0    | 11    | 0     | 9               | 93                   | 390  | 0     | 0     | 0 | 0 |
| 4:15 PM                | 0                                | 5    | 23   | 0     | 0                                | 0    | 0    | 45    | 6                                 | 0    | 0    | 0     | 0                                 | 0    | 22   | 0     | 6     | 107             | 400                  | 0    | 0     | 0     | 0 |   |
| 4:30 PM                | 0                                | 9    | 23   | 0     | 0                                | 0    | 0    | 34    | 6                                 | 0    | 0    | 0     | 0                                 | 0    | 20   | 0     | 11    | 103             | 381                  | 0    | 0     | 0     | 0 |   |
| 4:45 PM                | 0                                | 3    | 26   | 0     | 0                                | 0    | 0    | 27    | 7                                 | 0    | 0    | 0     | 0                                 | 0    | 14   | 0     | 10    | 87              | 363                  | 0    | 0     | 0     | 0 |   |
| 5:00 PM                | 0                                | 4    | 19   | 0     | 1                                | 0    | 0    | 56    | 8                                 | 0    | 0    | 0     | 0                                 | 0    | 7    | 0     | 8     | 103             | 358                  | 0    | 0     | 0     | 0 |   |
| 5:15 PM                | 0                                | 6    | 27   | 0     | 0                                | 0    | 0    | 38    | 4                                 | 0    | 0    | 0     | 0                                 | 0    | 8    | 0     | 5     | 88              |                      | 0    | 0     | 0     | 0 |   |
| 5:30 PM                | 0                                | 8    | 36   | 0     | 0                                | 0    | 0    | 28    | 1                                 | 0    | 0    | 0     | 0                                 | 0    | 7    | 0     | 5     | 85              |                      | 0    | 0     | 0     | 0 |   |
| 5:45 PM                | 0                                | 4    | 20   | 0     | 0                                | 0    | 0    | 30    | 6                                 | 0    | 0    | 0     | 0                                 | 0    | 10   | 0     | 12    | 82              |                      | 0    | 0     | 0     | 0 |   |
| Count Total            | 0                                | 43   | 197  | 0     | 1                                | 0    | 0    | 301   | 41                                | 0    | 0    | 0     | 0                                 | 0    | 99   | 0     | 66    | 748             |                      | 0    | 0     | 0     | 0 |   |
| Peak Hour              | 0                                | 21   | 91   | 0     | 1                                | 0    | 0    | 162   | 27                                | 0    | 0    | 0     | 0                                 | 0    | 63   | 0     | 35    | 400             |                      | 0    | 0     | 0     | 0 |   |



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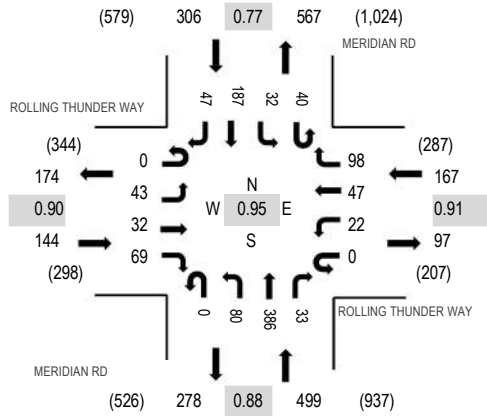
**Location:** 5 MERIDIAN RD & ROLLING THUNDER WAY PM

**Date:** Thursday, May 20, 2021

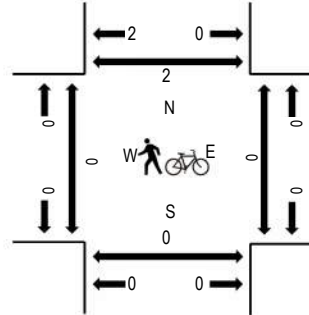
**Peak Hour:** 04:45 PM - 05:45 PM

**Peak 15-Minutes:** 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



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



Note: Total study counts contained in parentheses.

**Traffic Counts**

| Interval<br>Start Time | ROLLING THUNDER WAY<br>Eastbound |      |      |       | ROLLING THUNDER WAY<br>Westbound |      |      |       | MERIDIAN RD<br>Northbound |      |      |       | MERIDIAN RD<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|----------------------------------|------|------|-------|----------------------------------|------|------|-------|---------------------------|------|------|-------|---------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                           | Left | Thru | Right | U-Turn                           | Left | Thru | Right | U-Turn                    | Left | Thru | Right | U-Turn                    | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                                | 6    | 13   | 14    | 0                                | 0    | 8    | 23    | 0                         | 23   | 79   | 6     | 4                         | 10   | 43   | 12    | 241   | 1,044           | 0                    | 0    | 0     | 2     |
| 4:15 PM                | 0                                | 14   | 8    | 23    | 0                                | 5    | 13   | 13    | 0                         | 26   | 71   | 5     | 7                         | 10   | 48   | 12    | 255   | 1,097           | 0                    | 0    | 0     | 0     |
| 4:30 PM                | 0                                | 12   | 17   | 15    | 0                                | 1    | 15   | 16    | 0                         | 19   | 101  | 6     | 4                         | 6    | 40   | 6     | 258   | 1,114           | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                                | 11   | 12   | 17    | 0                                | 3    | 11   | 27    | 0                         | 20   | 114  | 11    | 7                         | 10   | 40   | 7     | 290   | 1,116           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                                | 10   | 2    | 15    | 0                                | 9    | 14   | 23    | 0                         | 32   | 96   | 9     | 14                        | 5    | 49   | 16    | 294   | 1,057           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                                | 15   | 9    | 11    | 0                                | 4    | 11   | 22    | 0                         | 14   | 81   | 4     | 10                        | 12   | 63   | 16    | 272   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                                | 7    | 9    | 26    | 0                                | 6    | 11   | 26    | 0                         | 14   | 95   | 9     | 9                         | 5    | 35   | 8     | 260   |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                                | 8    | 11   | 13    | 0                                | 3    | 9    | 14    | 0                         | 16   | 79   | 7     | 6                         | 11   | 43   | 11    | 231   |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                                | 83   | 81   | 134   | 0                                | 31   | 92   | 164   | 0                         | 164  | 716  | 57    | 61                        | 69   | 361  | 88    | 2,101 |                 | 0                    | 0    | 0     | 2     |
| Peak Hour              | 0                                | 43   | 32   | 69    | 0                                | 22   | 47   | 98    | 0                         | 80   | 386  | 33    | 40                        | 32   | 187  | 47    | 1,116 |                 | 0                    | 0    | 0     | 0     |





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Location: 6 MERIDIAN RD & US 24 PM

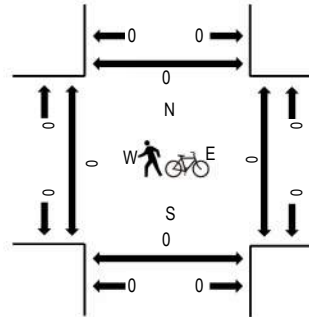
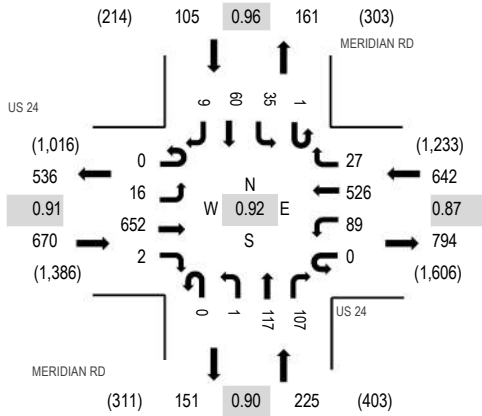
Date: Thursday, May 20, 2021

Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

| Interval<br>Start Time | US 24<br>Eastbound |      |       |       | US 24<br>Westbound |      |      |       | MERIDIAN RD<br>Northbound |      |      |       | MERIDIAN RD<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|--------------------|------|-------|-------|--------------------|------|------|-------|---------------------------|------|------|-------|---------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn             | Left | Thru  | Right | U-Turn             | Left | Thru | Right | U-Turn                    | Left | Thru | Right | U-Turn                    | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                  | 6    | 168   | 1     | 0                  | 23   | 141  | 4     | 0                         | 0    | 25   | 18    | 0                         | 9    | 20   | 2     | 417   | 1,614           | 0                    | 0    | 0     | 0     |
| 4:15 PM                | 0                  | 3    | 147   | 1     | 0                  | 31   | 124  | 9     | 0                         | 0    | 24   | 22    | 0                         | 7    | 17   | 3     | 388   | 1,642           | 0                    | 0    | 0     | 0     |
| 4:30 PM                | 0                  | 3    | 173   | 0     | 0                  | 18   | 140  | 4     | 0                         | 1    | 29   | 32    | 0                         | 10   | 17   | 3     | 430   | 1,639           | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                  | 4    | 159   | 1     | 0                  | 19   | 103  | 9     | 0                         | 0    | 28   | 25    | 0                         | 11   | 19   | 1     | 379   | 1,613           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                  | 6    | 173   | 0     | 0                  | 21   | 159  | 5     | 0                         | 0    | 36   | 28    | 1                         | 7    | 7    | 2     | 445   | 1,622           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                  | 6    | 156   | 0     | 0                  | 24   | 116  | 6     | 0                         | 0    | 25   | 27    | 0                         | 8    | 15   | 2     | 385   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                  | 2    | 179   | 1     | 0                  | 26   | 108  | 9     | 0                         | 0    | 32   | 23    | 0                         | 8    | 14   | 2     | 404   |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                  | 4    | 193   | 0     | 0                  | 19   | 107  | 8     | 0                         | 0    | 15   | 13    | 0                         | 10   | 17   | 2     | 388   |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                  | 34   | 1,348 | 4     | 0                  | 181  | 998  | 54    | 0                         | 1    | 214  | 188   | 1                         | 70   | 126  | 17    | 3,236 |                 | 0                    | 0    | 0     | 0     |
| Peak Hour              | 0                  | 16   | 652   | 2     | 0                  | 89   | 526  | 27    | 0                         | 1    | 117  | 107   | 1                         | 35   | 60   | 9     | 1,642 |                 | 0                    | 0    | 0     | 0     |



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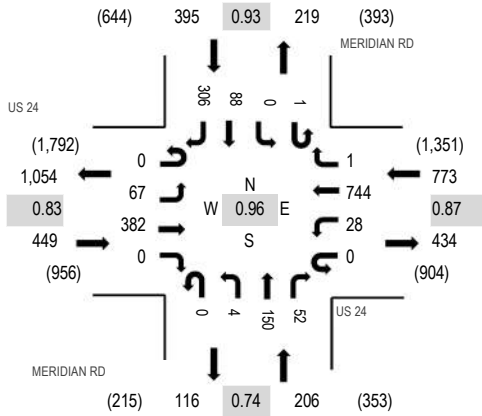
Location: 1 MERIDIAN RD & US 24 AM

Date: Wednesday, June 2, 2021

Peak Hour: 07:00 AM - 08:00 AM

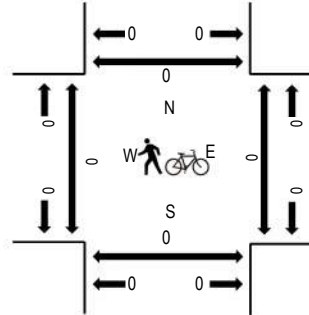
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

| Interval<br>Start Time | US 24<br>Eastbound |      |      |       | US 24<br>Westbound |      |       |       | MERIDIAN RD<br>Northbound |      |      | MERIDIAN RD<br>Southbound |        |      |      | Total | Rolling<br>Hour | Pedestrian Crossings |      |      |       |       |
|------------------------|--------------------|------|------|-------|--------------------|------|-------|-------|---------------------------|------|------|---------------------------|--------|------|------|-------|-----------------|----------------------|------|------|-------|-------|
|                        | U-Turn             | Left | Thru | Right | U-Turn             | Left | Thru  | Right | U-Turn                    | Left | Thru | Right                     | U-Turn | Left | Thru |       |                 | Right                | West | East | South | North |
| 7:00 AM                | 0                  | 15   | 87   | 0     | 0                  | 6    | 193   | 0     | 0                         | 1    | 30   | 5                         | 0      | 0    | 18   | 77    | 432             | 1,823                | 0    | 0    | 0     | 0     |
| 7:15 AM                | 0                  | 13   | 93   | 0     | 0                  | 7    | 180   | 1     | 0                         | 0    | 42   | 12                        | 1      | 0    | 19   | 86    | 454             | 1,764                | 0    | 0    | 0     | 0     |
| 7:30 AM                | 0                  | 16   | 101  | 0     | 0                  | 9    | 213   | 0     | 0                         | 2    | 28   | 15                        | 0      | 0    | 20   | 73    | 477             | 1,691                | 0    | 0    | 0     | 0     |
| 7:45 AM                | 0                  | 23   | 101  | 0     | 0                  | 6    | 158   | 0     | 0                         | 1    | 50   | 20                        | 0      | 0    | 31   | 70    | 460             | 1,583                | 0    | 0    | 0     | 0     |
| 8:00 AM                | 0                  | 14   | 93   | 0     | 0                  | 4    | 144   | 0     | 0                         | 3    | 26   | 11                        | 0      | 0    | 22   | 56    | 373             | 1,481                | 0    | 0    | 0     | 0     |
| 8:15 AM                | 0                  | 21   | 95   | 1     | 0                  | 3    | 155   | 0     | 0                         | 1    | 32   | 11                        | 0      | 0    | 14   | 48    | 381             |                      | 0    | 0    | 0     | 0     |
| 8:30 AM                | 0                  | 20   | 111  | 0     | 0                  | 12   | 126   | 0     | 0                         | 0    | 23   | 13                        | 0      | 0    | 25   | 39    | 369             |                      | 0    | 0    | 0     | 0     |
| 8:45 AM                | 0                  | 22   | 126  | 4     | 0                  | 8    | 126   | 0     | 0                         | 1    | 16   | 10                        | 0      | 0    | 6    | 39    | 358             |                      | 0    | 0    | 0     | 0     |
| Count Total            | 0                  | 144  | 807  | 5     | 0                  | 55   | 1,295 | 1     | 0                         | 9    | 247  | 97                        | 1      | 0    | 155  | 488   | 3,304           |                      | 0    | 0    | 0     | 0     |
| Peak Hour              | 0                  | 67   | 382  | 0     | 0                  | 28   | 744   | 1     | 0                         | 4    | 150  | 52                        | 1      | 0    | 88   | 306   | 1,823           |                      | 0    | 0    | 0     | 0     |



(303) 216-2439  
www.alltrafficdata.net

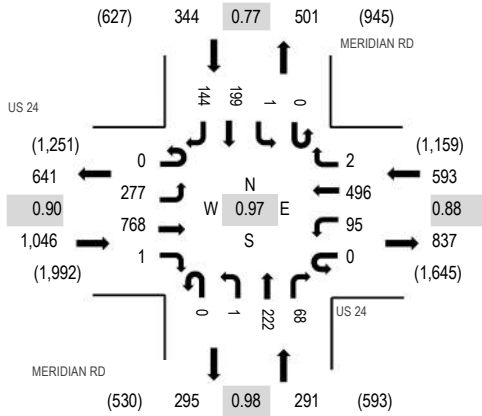
Location: 1 MERIDIAN RD & US 24 PM

Date: Wednesday, June 2, 2021

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

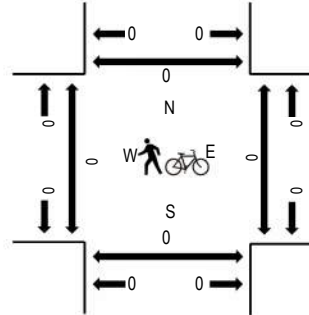
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

| Interval<br>Start Time | US 24<br>Eastbound |      |       |       | US 24<br>Westbound |      |      |       | MERIDIAN RD<br>Northbound |      |      |       | MERIDIAN RD<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|--------------------|------|-------|-------|--------------------|------|------|-------|---------------------------|------|------|-------|---------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn             | Left | Thru  | Right | U-Turn             | Left | Thru | Right | U-Turn                    | Left | Thru | Right | U-Turn                    | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                  | 45   | 177   | 0     | 0                  | 6    | 133  | 0     | 0                         | 1    | 56   | 19    | 0                         | 3    | 27   | 41    | 508   | 2,097           | 0                    | 0    | 0     | 0     |
| 4:15 PM                | 0                  | 62   | 200   | 0     | 0                  | 20   | 129  | 1     | 0                         | 0    | 40   | 18    | 0                         | 0    | 30   | 24    | 524   | 2,174           | 0                    | 0    | 0     | 0     |
| 4:30 PM                | 0                  | 50   | 178   | 0     | 0                  | 23   | 109  | 1     | 0                         | 1    | 69   | 14    | 0                         | 2    | 47   | 24    | 518   | 2,217           | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                  | 56   | 177   | 1     | 0                  | 28   | 116  | 0     | 0                         | 1    | 64   | 19    | 0                         | 1    | 53   | 31    | 547   | 2,259           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                  | 81   | 207   | 1     | 0                  | 21   | 113  | 0     | 0                         | 0    | 62   | 21    | 0                         | 0    | 44   | 35    | 585   | 2,274           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                  | 57   | 181   | 0     | 0                  | 30   | 139  | 0     | 0                         | 0    | 66   | 20    | 0                         | 0    | 40   | 34    | 567   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                  | 76   | 200   | 0     | 0                  | 15   | 130  | 1     | 0                         | 1    | 42   | 15    | 0                         | 1    | 46   | 33    | 560   |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                  | 63   | 180   | 0     | 0                  | 29   | 114  | 1     | 0                         | 0    | 52   | 12    | 0                         | 0    | 69   | 42    | 562   |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                  | 490  | 1,500 | 2     | 0                  | 172  | 983  | 4     | 0                         | 4    | 451  | 138   | 0                         | 7    | 356  | 264   | 4,371 |                 | 0                    | 0    | 0     | 0     |
| Peak Hour              | 0                  | 277  | 768   | 1     | 0                  | 95   | 496  | 2     | 0                         | 1    | 222  | 68    | 0                         | 1    | 199  | 144   | 2,274 |                 | 0                    | 0    | 0     | 0     |

**Appendix B**

**Trip Generation Calculations**



**PROJECT DETAILS**

|   |                       |
|---|-----------------------|
| Project Name: Falcon Highlands Filing No. 3 | Type of Project:      |
| Project No:                                 | City:                 |
| Country:                                    | Built-up Area(Sq.ft): |
| Analyst Name: Scott Barnhart                | Clients Name:         |
| Date: 5/19/2021                             | ZIP/Postal Code:      |
| State/Province:                             | No. of Scenarios: 3   |
| Analysis Region:                            |                       |

**SCENARIO SUMMARY**

| Scenarios    | Name         | No. of Land Uses | Phases of Development | No. of Years to Project Traffic | User Group | Estimated New Vehicle Trips |      |       |
|--------------|--------------|------------------|-----------------------|---------------------------------|------------|-----------------------------|------|-------|
|              |              |                  |                       |                                 |            | Entry                       | Exit | Total |
| Scenario - 1 | Daily        | 1                | 1                     | 0                               |            | 1840                        | 1840 | 3680  |
| Scenario - 2 | AM Peak Hour | 1                | 1                     | 0                               |            | 71                          | 214  | 285   |
| Scenario - 3 | PM Peak Hour | 1                | 1                     | 0                               |            | 239                         | 141  | 380   |

**Scenario - 1**

Scenario Name: Daily

User Group:

Dev. phase: 1

No. of Years to Project 0

Traffic :

Analyst Note:

Warning:

**VEHICLE TRIPS BEFORE REDUCTION**

| Land Use & Data Source                | Location               | IV             | Size | Time Period | Method                       | Entry  | Exit   | Total |
|---------------------------------------|------------------------|----------------|------|-------------|------------------------------|--------|--------|-------|
|                                       |                        |                |      |             | Rate/Equation                | Split% | Split% |       |
| 210 - Single-Family Detached Housing  | General Urban/Suburban | Dwelling Units | 395  | Weekday     | Best Fit (LOG)               | 1840   | 1840   | 3680  |
| Data Source: Trip Gen Manual, 10th Ed |                        |                |      |             | $\ln(T) = 0.92\ln(X) + 2.71$ | 50%    | 50%    |       |

**VEHICLE TO PERSON TRIP CONVERSION**

**BASELINE SITE VEHICLE CHARACTERISTICS:**

| Land Use                             | Baseline Site Vehicle Mode Share |          | Baseline Site Vehicle Occupancy |      | Baseline Site Vehicle Directional Split |          |
|--------------------------------------|----------------------------------|----------|---------------------------------|------|---|----------|
|                                      | Entry (%)                        | Exit (%) | Entry                           | Exit | Entry (%)                               | Exit (%) |
| 210 - Single-Family Detached Housing | 100                              | 100      | 1                               | 1    | 50                                      | 50       |

**ESTIMATED BASELINE SITE PERSON TRIPS:**

| Land Use                             | Person Trips by Vehicle |      | Person Trips by Other Modes |      | Total Baseline Site Person Trips |      |
|--------------------------------------|-------------------------|------|-----------------------------|------|----------------------------------|------|
|                                      | Entry                   | Exit | Entry                       | Exit | Entry                            | Exit |
| 210 - Single-Family Detached Housing | 1840                    | 1840 | 0                           | 0    | 1840                             | 1840 |
|                                      | 3680                    |      | 0                           |      | 3680                             |      |

**INTERNAL VEHICLE TRIP REDUCTION**

**LAND USE GROUP ASSIGNMENT:**

| Land Use                             | Land Use Group |
|--------------------------------------|----------------|
| 210 - Single-Family Detached Housing | Residential    |

**BALANCED PERSON TRIPS:**

**INTERNAL PERSON TRIPS:**

**210 - Single-Family Detached Housing**

| Internal Person Trips From         | Entry    | Exit     | Total    |
|------------------------------------|----------|----------|----------|
| <b>Total Internal Person Trips</b> | <b>0</b> | <b>0</b> | <b>0</b> |

**INTERNAL VEHICLE TRIPS AND CAPTURE:**

**210 - Single-Family Detached Housing**

|                                      |           |           |           |
|--------------------------------------|-----------|-----------|-----------|
| Total Internal Person Trips          | 0         | 0         | 0         |
| Vehicle Mode Share                   | 100%      | 100%      | -         |
| Vehicle Occupancy                    | 1.00      | 1.00      | -         |
| <b>Total Vehicle Internal Trips</b>  | <b>0</b>  | <b>0</b>  | <b>0</b>  |
| Total External Vehicle Trips         | 1840      | 1840      | 3680      |
| <b>Internal Vehicle Trip Capture</b> | <b>0%</b> | <b>0%</b> | <b>0%</b> |

**PASS-BY VEHICLE TRIP REDUCTION**

| Land Use                             | External Vehicle Trips |      | Pass-by Vehicle Trip % |          | Pass-by Vehicle Trips |      |
|--------------------------------------|------------------------|------|------------------------|----------|-----------------------|------|
|                                      | Entry                  | Exit | Entry (%)              | Exit (%) | Entry                 | Exit |
| 210 - Single-Family Detached Housing | 1840                   | 1840 | 0.00%                  | 0.00%    | 0                     | 0    |

**DIVERTED VEHICLE TRIP REDUCTION**

| Land Use                             | External Vehicle Trips |      | Diverted Vehicle Trip % |          | Diverted Vehicle Trips |      |
|--------------------------------------|------------------------|------|-------------------------|----------|------------------------|------|
|                                      | Entry                  | Exit | Entry (%)               | Exit (%) | Entry                  | Exit |
| 210 - Single-Family Detached Housing | 1840                   | 1840 | 0.00%                   | 0.00%    | 0                      | 0    |

**EXTRA VEHICLE TRIP REDUCTION**

| Land Use                             | (External - (Pass-by + Diverted)) Vehicle Trips |      | Extra Vehicle Trip Reduction % |          | Extra Reduced Vehicle Trips |      |
|--------------------------------------|---|------|--------------------------------|----------|-----------------------------|------|
|                                      | Entry   | Exit | Entry (%)                      | Exit (%) | Entry                       | Exit |
| 210 - Single-Family Detached Housing | 1840  | 1840 | 0.00%                          | 0.00%    | 0                           | 0    |

**NEW VEHICLE TRIPS**

| Land Use                             | New Vehicle Trips |      |       |
|--------------------------------------|-------------------|------|-------|
|                                      | Entry             | Exit | Total |
| 210 - Single-Family Detached Housing | 1840              | 1840 | 3680  |

**RESULTS**

| Site Totals                    | Entry | Exit | Total |
|--------------------------------|-------|------|-------|
| Vehicle Trips Before Reduction | 1840  | 1840 | 3680  |
| Internal Vehicle Trips         | 0     | 0    | 0     |
| External Vehicle Trips         | 1840  | 1840 | 3680  |
| Internal Vehicle Trip Capture  | 0%    | 0%   | 0%    |
| Pass-by Vehicle Trips          | 0     | 0    | 0     |
| Diverted Vehicle Trips         | 0     | 0    | 0     |
| Extra Reduced Vehicle Trips    | 0     | 0    | 0     |
| New Vehicle Trips              | 1840  | 1840 | 3680  |

**Scenario - 2**

Scenario Name: AM Peak Hour

User Group:

Dev. phase: 1

No. of Years to Project 0

Traffic :

Analyst Note:

Warning:

**VEHICLE TRIPS BEFORE REDUCTION**

| Land Use & Data Source                | Location                  | IV             | Size | Time Period                                       | Method             | Entry  | Exit   | Total |
|---------------------------------------|---------------------------|----------------|------|---|--------------------|--------|--------|-------|
|                                       |                           |                |      |   | Rate/Equation      | Split% | Split% |       |
| 210 - Single-Family Detached Housing  | General<br>Urban/Suburban | Dwelling Units | 395  | Weekday, Peak Hour of<br>Adjacent Street Traffic, | Best Fit (LIN)     | 71     | 214    | 285   |
| Data Source: Trip Gen Manual, 10th Ed |                           |                |      |   | T = 0.71(X) + 4.80 | 25%    | 75%    |       |

**VEHICLE TO PERSON TRIP CONVERSION**

**BASELINE SITE VEHICLE CHARACTERISTICS:**

| Land Use                             | Baseline Site Vehicle Mode Share |          | Baseline Site Vehicle Occupancy |      | Baseline Site Vehicle Directional Split |          |
|--------------------------------------|----------------------------------|----------|---------------------------------|------|---|----------|
|                                      | Entry (%)                        | Exit (%) | Entry                           | Exit | Entry (%)                               | Exit (%) |
| 210 - Single-Family Detached Housing | 100                              | 100      | 1                               | 1    | 25                                      | 75       |

**ESTIMATED BASELINE SITE PERSON TRIPS:**

| Land Use                             | Person Trips by Vehicle |      | Person Trips by Other Modes |      | Total Baseline Site Person Trips |      |
|--------------------------------------|-------------------------|------|-----------------------------|------|----------------------------------|------|
|                                      | Entry                   | Exit | Entry                       | Exit | Entry                            | Exit |
| 210 - Single-Family Detached Housing | 71                      | 214  | 0                           | 0    | 71                               | 214  |
|                                      | 285                     |      | 0                           |      | 285                              |      |

**INTERNAL VEHICLE TRIP REDUCTION**

**LAND USE GROUP ASSIGNMENT:**

| Land Use                             | Land Use Group |
|--------------------------------------|----------------|
| 210 - Single-Family Detached Housing | Residential    |

**BALANCED PERSON TRIPS:**

**INTERNAL PERSON TRIPS:**

**210 - Single-Family Detached Housing**

| Internal Person Trips From         | Entry    | Exit     | Total    |
|------------------------------------|----------|----------|----------|
| <b>Total Internal Person Trips</b> | <b>0</b> | <b>0</b> | <b>0</b> |

**INTERNAL VEHICLE TRIPS AND CAPTURE:**

**210 - Single-Family Detached Housing**

|                                      |           |           |           |
|--------------------------------------|-----------|-----------|-----------|
| Total Internal Person Trips          | 0         | 0         | 0         |
| Vehicle Mode Share                   | 100%      | 100%      | -         |
| Vehicle Occupancy                    | 1.00      | 1.00      | -         |
| <b>Total Vehicle Internal Trips</b>  | <b>0</b>  | <b>0</b>  | <b>0</b>  |
| Total External Vehicle Trips         | 71        | 214       | 285       |
| <b>Internal Vehicle Trip Capture</b> | <b>0%</b> | <b>0%</b> | <b>0%</b> |



**PASS-BY VEHICLE TRIP REDUCTION**

| Land Use                             | External Vehicle Trips |      | Pass-by Vehicle Trip % |          | Pass-by Vehicle Trips |      |
|--------------------------------------|------------------------|------|------------------------|----------|-----------------------|------|
|                                      | Entry                  | Exit | Entry (%)              | Exit (%) | Entry                 | Exit |
| 210 - Single-Family Detached Housing | 71                     | 214  | 0.00%                  | 0.00%    | 0                     | 0    |

**DIVERTED VEHICLE TRIP REDUCTION**

| Land Use                             | External Vehicle Trips |      | Diverted Vehicle Trip % |          | Diverted Vehicle Trips |      |
|--------------------------------------|------------------------|------|-------------------------|----------|------------------------|------|
|                                      | Entry                  | Exit | Entry (%)               | Exit (%) | Entry                  | Exit |
| 210 - Single-Family Detached Housing | 71                     | 214  | 0.00%                   | 0.00%    | 0                      | 0    |

**EXTRA VEHICLE TRIP REDUCTION**

| Land Use                             | (External - (Pass-by + Diverted)) Vehicle Trips |      | Extra Vehicle Trip Reduction % |          | Extra Reduced Vehicle Trips |      |
|--------------------------------------|---|------|--------------------------------|----------|-----------------------------|------|
|                                      | Entry   | Exit | Entry (%)                      | Exit (%) | Entry                       | Exit |
| 210 - Single-Family Detached Housing | 71  | 214  | 0.00%                          | 0.00%    | 0                           | 0    |

**NEW VEHICLE TRIPS**

| Land Use                             | New Vehicle Trips |      |       |
|--------------------------------------|-------------------|------|-------|
|                                      | Entry             | Exit | Total |
| 210 - Single-Family Detached Housing | 71                | 214  | 285   |

**RESULTS**

| Site Totals                    | Entry | Exit | Total |
|--------------------------------|-------|------|-------|
| Vehicle Trips Before Reduction | 71    | 214  | 285   |
| Internal Vehicle Trips         | 0     | 0    | 0     |
| External Vehicle Trips         | 71    | 214  | 285   |
| Internal Vehicle Trip Capture  | 0%    | 0%   | 0%    |
| Pass-by Vehicle Trips          | 0     | 0    | 0     |
| Diverted Vehicle Trips         | 0     | 0    | 0     |
| Extra Reduced Vehicle Trips    | 0     | 0    | 0     |
| New Vehicle Trips              | 71    | 214  | 285   |

**Scenario - 3**

Scenario Name: PM Peak Hour

User Group:

Dev. phase: 1

No. of Years to Project 0

Traffic :

Analyst Note:

Warning:

**VEHICLE TRIPS BEFORE REDUCTION**

| Land Use & Data Source                | Location                  | IV             | Size | Time Period                                       | Method                  | Entry  | Exit   | Total |
|---------------------------------------|---------------------------|----------------|------|---|-------------------------|--------|--------|-------|
|                                       |                           |                |      |   | Rate/Equation           | Split% | Split% |       |
| 210 - Single-Family Detached Housing  | General<br>Urban/Suburban | Dwelling Units | 395  | Weekday, Peak Hour of<br>Adjacent Street Traffic, | Best Fit (LOG)          | 239    | 141    | 380   |
| Data Source: Trip Gen Manual, 10th Ed |                           |                |      |   | Ln(T) =0.96Ln(X) + 0.20 | 63%    | 37%    |       |

**VEHICLE TO PERSON TRIP CONVERSION**

**BASELINE SITE VEHICLE CHARACTERISTICS:**

| Land Use                             | Baseline Site Vehicle Mode Share |          | Baseline Site Vehicle Occupancy |      | Baseline Site Vehicle Directional Split |          |
|--------------------------------------|----------------------------------|----------|---------------------------------|------|---|----------|
|                                      | Entry (%)                        | Exit (%) | Entry                           | Exit | Entry (%)                               | Exit (%) |
| 210 - Single-Family Detached Housing | 100                              | 100      | 1                               | 1    | 63                                      | 37       |

**ESTIMATED BASELINE SITE PERSON TRIPS:**

| Land Use                             | Person Trips by Vehicle |      | Person Trips by Other Modes |      | Total Baseline Site Person Trips |      |
|--------------------------------------|-------------------------|------|-----------------------------|------|----------------------------------|------|
|                                      | Entry                   | Exit | Entry                       | Exit | Entry                            | Exit |
| 210 - Single-Family Detached Housing | 239                     | 141  | 0                           | 0    | 239                              | 141  |
|                                      | 380                     |      | 0                           |      | 380                              |      |

**INTERNAL VEHICLE TRIP REDUCTION**

**LAND USE GROUP ASSIGNMENT:**

| Land Use                             | Land Use Group |
|--------------------------------------|----------------|
| 210 - Single-Family Detached Housing | Residential    |

**BALANCED PERSON TRIPS:**

**INTERNAL PERSON TRIPS:**

**210 - Single-Family Detached Housing**

| Internal Person Trips From         | Entry    | Exit     | Total    |
|------------------------------------|----------|----------|----------|
| <b>Total Internal Person Trips</b> | <b>0</b> | <b>0</b> | <b>0</b> |

**INTERNAL VEHICLE TRIPS AND CAPTURE:**

**210 - Single-Family Detached Housing**

|                                      |           |           |           |
|--------------------------------------|-----------|-----------|-----------|
| Total Internal Person Trips          | 0         | 0         | 0         |
| Vehicle Mode Share                   | 100%      | 100%      | -         |
| Vehicle Occupancy                    | 1.00      | 1.00      | -         |
| <b>Total Vehicle Internal Trips</b>  | <b>0</b>  | <b>0</b>  | <b>0</b>  |
| Total External Vehicle Trips         | 239       | 141       | 380       |
| <b>Internal Vehicle Trip Capture</b> | <b>0%</b> | <b>0%</b> | <b>0%</b> |

**PASS-BY VEHICLE TRIP REDUCTION**

| Land Use                             | External Vehicle Trips |      | Pass-by Vehicle Trip % |          | Pass-by Vehicle Trips |      |
|--------------------------------------|------------------------|------|------------------------|----------|-----------------------|------|
|                                      | Entry                  | Exit | Entry (%)              | Exit (%) | Entry                 | Exit |
| 210 - Single-Family Detached Housing | 239                    | 141  | 0.00%                  | 0.00%    | 0                     | 0    |

**DIVERTED VEHICLE TRIP REDUCTION**

| Land Use                             | External Vehicle Trips |      | Diverted Vehicle Trip % |          | Diverted Vehicle Trips |      |
|--------------------------------------|------------------------|------|-------------------------|----------|------------------------|------|
|                                      | Entry                  | Exit | Entry (%)               | Exit (%) | Entry                  | Exit |
| 210 - Single-Family Detached Housing | 239                    | 141  | 0.00%                   | 0.00%    | 0                      | 0    |

**EXTRA VEHICLE TRIP REDUCTION**

| Land Use                             | (External - (Pass-by + Diverted)) Vehicle Trips |      | Extra Vehicle Trip Reduction % |          | Extra Reduced Vehicle Trips |      |
|--------------------------------------|---|------|--------------------------------|----------|-----------------------------|------|
|                                      | Entry   | Exit | Entry (%)                      | Exit (%) | Entry                       | Exit |
| 210 - Single-Family Detached Housing | 239   | 141  | 0.00%                          | 0.00%    | 0                           | 0    |

**NEW VEHICLE TRIPS**

| Land Use                             | New Vehicle Trips |      |       |
|--------------------------------------|-------------------|------|-------|
|                                      | Entry             | Exit | Total |
| 210 - Single-Family Detached Housing | 239               | 141  | 380   |

**RESULTS**

| Site Totals                    | Entry | Exit | Total |
|--------------------------------|-------|------|-------|
| Vehicle Trips Before Reduction | 239   | 141  | 380   |
| Internal Vehicle Trips         | 0     | 0    | 0     |
| External Vehicle Trips         | 239   | 141  | 380   |
| Internal Vehicle Trip Capture  | 0%    | 0%   | 0%    |
| Pass-by Vehicle Trips          | 0     | 0    | 0     |
| Diverted Vehicle Trips         | 0     | 0    | 0     |
| Extra Reduced Vehicle Trips    | 0     | 0    | 0     |
| New Vehicle Trips              | 239   | 141  | 380   |

**Appendix C**

**Existing (2021) LOS Reports**

**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 23.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.582 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           |                |        |        |                |        |        |            |        |        |            |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 150.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |



**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   |                |        |        |                |        |        |            |        |        |            |        |        |
| Base Volume Input [veh/h]                   | 127            | 21     | 4      | 37             | 17     | 111    | 42         | 728    | 53     | 13         | 1279   | 21     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 127            | 21     | 4      | 37             | 17     | 111    | 42         | 728    | 53     | 13         | 1279   | 21     |
| Peak Hour Factor                            | 0.8500         | 0.8500 | 0.8500 | 0.8500         | 0.8500 | 0.8500 | 0.8500     | 0.8500 | 0.8500 | 0.8900     | 0.8900 | 0.8900 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 37             | 6      | 1      | 11             | 5      | 33     | 12         | 214    | 16     | 4          | 359    | 6      |
| Total Analysis Volume [veh/h]               | 149            | 25     | 5      | 44             | 20     | 131    | 49         | 856    | 62     | 15         | 1437   | 24     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 140                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 0       | 8       | 0       | 0       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 0       | 87      | 0       | 0       | 87      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0       | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 49    | 49    | 49    | 49    | 49    | 83    | 83    | 83    | 83    | 83    | 83    |
| g / C, Green / Cycle                    | 0.35  | 0.35  | 0.35  | 0.35  | 0.35  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  |
| (v / s)_i Volume / Saturation Flow Rate | 0.13  | 0.01  | 0.00  | 0.04  | 0.10  | 0.15  | 0.27  | 0.04  | 0.03  | 0.45  | 0.02  |
| s, saturation flow rate [veh/h]         | 1112  | 1683  | 1431  | 1247  | 1518  | 335   | 3204  | 1431  | 580   | 3204  | 1431  |
| c, Capacity [veh/h]                     | 345   | 589   | 501   | 458   | 531   | 134   | 1900  | 848   | 301   | 1900  | 848   |
| d1, Uniform Delay [s]                   | 43.79 | 30.02 | 29.68 | 32.97 | 32.84 | 46.44 | 15.83 | 12.13 | 23.33 | 21.04 | 11.80 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 3.91  | 0.14  | 0.04  | 0.42  | 1.34  | 7.51  | 0.77  | 0.17  | 0.31  | 2.87  | 0.06  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |       |       |       |        |       |        |       |       |        |       |
|---------------------------------------|--------|-------|-------|-------|--------|-------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.43   | 0.04  | 0.01  | 0.10  | 0.28   | 0.37  | 0.45   | 0.07  | 0.05  | 0.76   | 0.03  |
| d, Delay for Lane Group [s/veh]       | 47.70  | 30.16 | 29.71 | 33.39 | 34.18  | 53.95 | 16.61  | 12.30 | 23.65 | 23.91  | 11.86 |
| Lane Group LOS                        | D      | C     | C     | C     | C      | D     | B      | B     | C     | C      | B     |
| Critical Lane Group                   | Yes    | No    | No    | No    | No     | No    | No     | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 4.76   | 0.58  | 0.12  | 1.12  | 3.95   | 1.73  | 7.10   | 0.80  | 0.31  | 16.14  | 0.30  |
| 50th-Percentile Queue Length [ft/ln]  | 119.10 | 14.62 | 2.91  | 27.93 | 98.82  | 43.23 | 177.58 | 20.12 | 7.64  | 403.61 | 7.57  |
| 95th-Percentile Queue Length [veh/ln] | 8.34   | 1.05  | 0.21  | 2.01  | 7.11   | 3.11  | 11.47  | 1.45  | 0.55  | 22.73  | 0.55  |
| 95th-Percentile Queue Length [ft/ln]  | 208.59 | 26.31 | 5.23  | 50.27 | 177.87 | 77.81 | 286.85 | 36.22 | 13.75 | 568.35 | 13.63 |

**Movement, Approach, & Intersection Results**

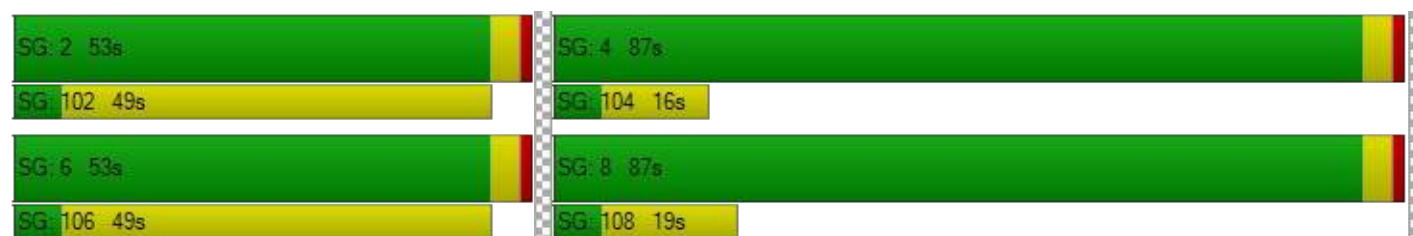
|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 47.70 | 30.16 | 29.71 | 33.39 | 34.18 | 34.18 | 53.95 | 16.61 | 12.30 | 23.65 | 23.91 | 11.86 |
| Movement LOS                    | D     | C     | C     | C     | C     | C     | D     | B     | B     | C     | C     | B     |
| d_A, Approach Delay [s/veh]     | 44.75 |       |       | 34.00 |       |       | 18.22 |       |       | 23.71 |       |       |
| Approach LOS                    | D     |       |       | C     |       |       | B     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 23.87 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.582 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 61.29 | 61.29 | 61.29 | 61.29 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.253 | 2.127 | 3.514 | 3.287 |
| Crosswalk LOS  | B     | B     | D     | C     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 700   | 700   | 1186  | 1186  |
| d_b, Bicycle Delay [s]                                   | 29.58 | 29.58 | 11.60 | 11.60 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.855 | 1.881 | 2.357 | 2.777 |
| Bicycle LOS  | A     | A     | B     | C     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 10.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.006 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | ⊕               |        |        | ⊕               |        |        | ↔              |        |        | ↔                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 15              | 3      | 41     | 8               | 6      | 1      | 1              | 48     | 5      | 21                  | 83     | 3      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 15              | 3      | 41     | 8               | 6      | 1      | 1              | 48     | 5      | 21                  | 83     | 3      |
| Peak Hour Factor                        | 0.8500          | 0.8500 | 0.8500 | 0.8500          | 0.8500 | 0.8500 | 0.8600         | 0.8600 | 0.8600 | 0.8800              | 0.8800 | 0.8800 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 4               | 1      | 12     | 2               | 2      | 0      | 0              | 14     | 1      | 6                   | 24     | 1      |
| Total Analysis Volume [veh/h]           | 18              | 4      | 48     | 9               | 7      | 1      | 1              | 56     | 6      | 24                  | 94     | 3      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |



**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.02  | 0.01  | 0.05 | 0.01  | 0.01  | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 10.25 | 10.64 | 8.92 | 10.44 | 10.44 | 8.88 | 7.41 | 0.00 | 0.00 | 7.37 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.25  | 0.25  | 0.25 | 0.08  | 0.08  | 0.08 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 6.34  | 6.34  | 6.34 | 1.89  | 1.89  | 1.89 | 0.05 | 0.00 | 0.00 | 1.19 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 9.36  |       |      | 10.35 |       |      | 0.12 |      |      | 1.46 |      |      |
| Approach LOS                          | A     |       |      | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 3.75  |       |      |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 10.7  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.002 |

**Intersection Setup**

| Name                         | Antelope Meadows Circle |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | +                   |        |        | +                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 95.00               | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelope Meadows Circle |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 5                       | 1      | 20     | 20                      | 0      | 3      | 2                   | 86     | 2      | 6                   | 101    | 7      |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 5                       | 1      | 20     | 20                      | 0      | 3      | 2                   | 86     | 2      | 6                   | 101    | 7      |
| Peak Hour Factor                        | 0.8500                  | 0.8500 | 0.8500 | 0.8500                  | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 1                       | 0      | 6      | 6                       | 0      | 1      | 1                   | 25     | 1      | 2                   | 30     | 2      |
| Total Analysis Volume [veh/h]           | 6                       | 1      | 24     | 24                      | 0      | 4      | 2                   | 101    | 2      | 7                   | 119    | 8      |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.01  | 0.00  | 0.03 | 0.04  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 10.27 | 10.68 | 8.93 | 10.54 | 10.72 | 9.09 | 7.47 | 0.00 | 0.00 | 7.43 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.11  | 0.11  | 0.11 | 0.12  | 0.12  | 0.12 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 2.74  | 2.74  | 2.74 | 3.10  | 3.10  | 3.10 | 0.10 | 0.00 | 0.00 | 0.35 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 9.24  |       |      | 10.33 |       |      | 0.14 |      |      | 0.39 |      |      |
| Approach LOS                          | A     |       |      | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 2.16  |       |      |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 9.9   |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | A     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.095 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 26                | 16     | 18                  | 109    | 96                  | 8      |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 26                | 16     | 18                  | 109    | 96                  | 8      |
| Peak Hour Factor                            | 0.8500            | 0.8500 | 0.8500              | 0.8500 | 0.8500              | 0.8500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 8                 | 5      | 5                   | 32     | 28                  | 2      |
| Total Analysis Volume [veh/h]               | 31                | 19     | 21                  | 128    | 113                 | 9      |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 28         | 0          | 0          | 32         | 32         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | R     | L     | C    | C    | R    |
|---|-------|-------|-------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00  | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 24    | 24    | 28    | 28   | 28   | 28   |
| g / C, Green / Cycle                    | 0.40  | 0.40  | 0.47  | 0.47 | 0.47 | 0.47 |
| (v / s)_i Volume / Saturation Flow Rate | 0.02  | 0.01  | 0.02  | 0.08 | 0.07 | 0.01 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 1152  | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 641   | 572   | 575   | 785  | 785  | 668  |
| d1, Uniform Delay [s]                   | 11.01 | 10.95 | 11.19 | 9.24 | 9.15 | 8.59 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.14  | 0.11  | 0.12  | 0.45 | 0.38 | 0.04 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |       |      |
|---------------------------------------|-------|-------|-------|-------|-------|------|
| X, volume / capacity                  | 0.05  | 0.03  | 0.04  | 0.16  | 0.14  | 0.01 |
| d, Delay for Lane Group [s/veh]       | 11.16 | 11.05 | 11.31 | 9.68  | 9.53  | 8.62 |
| Lane Group LOS                        | B     | B     | B     | A     | A     | A    |
| Critical Lane Group                   | Yes   | No    | No    | Yes   | No    | No   |
| 50th-Percentile Queue Length [veh/ln] | 0.24  | 0.15  | 0.17  | 0.90  | 0.78  | 0.06 |
| 50th-Percentile Queue Length [ft/ln]  | 6.08  | 3.75  | 4.20  | 22.44 | 19.60 | 1.48 |
| 95th-Percentile Queue Length [veh/ln] | 0.44  | 0.27  | 0.30  | 1.62  | 1.41  | 0.11 |
| 95th-Percentile Queue Length [ft/ln]  | 10.94 | 6.74  | 7.57  | 40.40 | 35.27 | 2.66 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |      |      |      |
|---------------------------------|-------|-------|-------|------|------|------|
| d_M, Delay for Movement [s/veh] | 11.16 | 11.05 | 11.31 | 9.68 | 9.53 | 8.62 |
| Movement LOS                    | B     | B     | B     | A    | A    | A    |
| d_A, Approach Delay [s/veh]     | 11.12 |       | 9.91  |      | 9.47 |      |
| Approach LOS                    | B     |       | A     |      | A    |      |
| d_I, Intersection Delay [s/veh] | 9.93  |       |       |      |      |      |
| Intersection LOS                | A     |       |       |      |      |      |
| Intersection V/C                | 0.095 |       |       |      |      |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 1.981 | 2.027 | 2.027 |
| Crosswalk LOS  | A     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 800   | 933   | 933   |
| d_b, Bicycle Delay [s]                                   | 10.80 | 8.53  | 8.53  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 1.805 | 1.761 |
| Bicycle LOS  | A     | A     | A     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 11.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.189 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | Meridian Rd   |        |        | Rolling Thunder Way   |        |        | Old Meridian Rd   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 1      | 2   | 0      | 1      | 1   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00  | 100.00 | 250.00 | 280.00  | 100.00 | 190.00 | 350.00  | 100.00 | 300.00 | 265.00  | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 35.00   |        |        | 30.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | No  |        |        | No  |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Base Volume Input [veh/h]                   | 56              | 186    | 8      | 24          | 295    | 19     | 26                  | 32     | 78     | 20              | 29     | 42     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   |
| Growth Factor                               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 56              | 186    | 8      | 24          | 295    | 19     | 26                  | 32     | 78     | 20              | 29     | 42     |
| Peak Hour Factor                            | 0.8700          | 0.8700 | 0.8700 | 0.8500      | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 | 0.8800          | 0.8800 | 0.8800 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 16              | 53     | 2      | 7           | 87     | 6      | 8                   | 9      | 23     | 6               | 8      | 12     |
| Total Analysis Volume [veh/h]               | 64              | 214    | 9      | 28          | 347    | 22     | 31                  | 38     | 92     | 23              | 33     | 48     |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No              |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 36      | 0       | 10      | 37      | 0       | 43       | 14      | 0       | 12      | 14      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L    | C    | R    | L    | C    | R    | L     | C     | R     | L     | C     | R     |
|---|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 60   | 60   | 60   | 60   | 60   | 60   | 60    | 60    | 60    | 60    | 60    | 60    |
| L, Total Lost Time per Cycle [s]        | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 0.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 0.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 42   | 32   | 32   | 42   | 33   | 33   | 0     | 10    | 10    | 10    | 10    | 10    |
| g / C, Green / Cycle                    | 0.70 | 0.53 | 0.53 | 0.70 | 0.55 | 0.55 | 0.00  | 0.17  | 0.17  | 0.17  | 0.17  | 0.17  |
| (v / s)_i Volume / Saturation Flow Rate | 0.06 | 0.07 | 0.01 | 0.02 | 0.11 | 0.02 | 0.02  | 0.02  | 0.06  | 0.02  | 0.01  | 0.03  |
| s, saturation flow rate [veh/h]         | 1042 | 3204 | 1431 | 1156 | 3204 | 1431 | 1439  | 1683  | 1431  | 1232  | 3204  | 1431  |
| c, Capacity [veh/h]                     | 852  | 1709 | 763  | 947  | 1762 | 787  | 120   | 280   | 238   | 261   | 534   | 238   |
| d1, Uniform Delay [s]                   | 2.91 | 7.00 | 6.57 | 2.78 | 6.81 | 6.17 | 30.00 | 21.31 | 22.27 | 23.99 | 21.05 | 21.56 |
| k, delay calibration                    | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.17 | 0.15 | 0.03 | 0.06 | 0.25 | 0.07 | 5.15  | 1.00  | 4.66  | 0.67  | 0.22  | 1.89  |
| d3, Initial Queue Delay [s]             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |      |       |      |      |       |      |       |       |       |       |       |       |
|---------------------------------------|------|-------|------|------|-------|------|-------|-------|-------|-------|-------|-------|
| X, volume / capacity                  | 0.08 | 0.13  | 0.01 | 0.03 | 0.20  | 0.03 | 0.26  | 0.14  | 0.39  | 0.09  | 0.06  | 0.20  |
| d, Delay for Lane Group [s/veh]       | 3.08 | 7.15  | 6.60 | 2.84 | 7.06  | 6.24 | 35.15 | 22.32 | 26.93 | 24.66 | 21.27 | 23.45 |
| Lane Group LOS                        | A    | A     | A    | A    | A     | A    | D     | C     | C     | C     | C     | C     |
| Critical Lane Group                   | Yes  | No    | No   | No   | Yes   | No   | No    | No    | Yes   | No    | No    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.17 | 0.57  | 0.05 | 0.07 | 0.92  | 0.11 | 0.30  | 0.50  | 1.37  | 0.33  | 0.20  | 0.67  |
| 50th-Percentile Queue Length [ft/ln]  | 4.16 | 14.27 | 1.21 | 1.73 | 22.88 | 2.81 | 7.51  | 12.43 | 34.22 | 8.17  | 5.00  | 16.80 |
| 95th-Percentile Queue Length [veh/ln] | 0.30 | 1.03  | 0.09 | 0.12 | 1.65  | 0.20 | 0.54  | 0.89  | 2.46  | 0.59  | 0.36  | 1.21  |
| 95th-Percentile Queue Length [ft/ln]  | 7.49 | 25.69 | 2.17 | 3.11 | 41.19 | 5.06 | 13.52 | 22.37 | 61.59 | 14.71 | 9.00  | 30.24 |



**Movement, Approach, & Intersection Results**

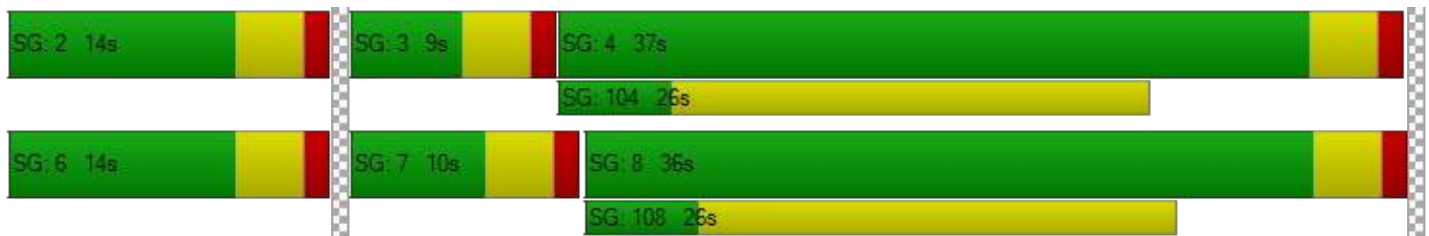
|                                 |       |      |      |      |      |      |       |       |       |       |       |       |
|---------------------------------|-------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 3.08  | 7.15 | 6.60 | 2.84 | 7.06 | 6.24 | 35.15 | 22.32 | 26.93 | 24.66 | 21.27 | 23.45 |
| Movement LOS                    | A     | A    | A    | A    | A    | A    | D     | C     | C     | C     | C     | C     |
| d_A, Approach Delay [s/veh]     | 6.23  |      |      | 6.72 |      |      | 27.42 |       |       | 23.03 |       |       |
| Approach LOS                    | A     |      |      | A    |      |      | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 11.87 |      |      |      |      |      |       |       |       |       |       |       |
| Intersection LOS                | B     |      |      |      |      |      |       |       |       |       |       |       |
| Intersection V/C                | 0.189 |      |      |      |      |      |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 21.68 |  |  | 21.68 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.540 |  |  | 2.338 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 1067  |  |  | 1100  |  |  | 333   |  |  | 333   |  |  |
| d_b, Bicycle Delay [s]                                   | 6.53  |  |  | 6.08  |  |  | 20.83 |  |  | 20.83 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.796 |  |  | 1.887 |  |  | 1.825 |  |  | 1.645 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | A     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report  
Intersection 6: Old Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 29.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.557 |

**Intersection Setup**

| Name                         | Old Meridian Rd |        |        | Old Meridian Rd |        |       | US 24     |        |        | US 24     |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|-------|-----------|--------|--------|-----------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |       | Eastbound |        |        | Westbound |        |        |
| Lane Configuration           | ← ↑ →           |        |        | ← ↑ →           |        |       | ← ↑ →     |        |        | ← ↑ →     |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right | Left      | Thru   | Right  | Left      | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00           | 12.00  | 12.00 | 13.00     | 13.00  | 13.00  | 14.00     | 14.00  | 12.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 1      | 0               | 0      | 1     | 1         | 0      | 0      | 1         | 0      | 1      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 150.00 | 100.00          | 100.00 | 50.00 | 400.00    | 100.00 | 100.00 | 550.00    | 100.00 | 550.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 1      | 0               | 0      | 0     | 0         | 0      | 0      | 0         | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 50.00  | 0.00            | 0.00   | 0.00  | 0.00      | 0.00   | 0.00   | 0.00      | 0.00   | 500.00 |
| Speed [mph]                  | 40.00           |        |        | 30.00           |        |       | 55.00     |        |        | 55.00     |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |       | 0.00      |        |        | 0.00      |        |        |
| Curb Present                 | No              |        |        | No              |        |       | No        |        |        | No        |        |        |
| Crosswalk                    | No              |        |        | No              |        |       | No        |        |        | No        |        |        |

**Volumes**

| Name  | Old Meridian Rd |        |        | Old Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Base Volume Input [veh/h]                   | 1               | 64     | 52     | 19              | 35     | 8      | 7      | 454    | 1      | 38     | 759    | 23     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 1               | 64     | 52     | 19              | 35     | 8      | 7      | 454    | 1      | 38     | 759    | 23     |
| Peak Hour Factor                            | 0.8500          | 0.8500 | 0.8500 | 0.8500          | 0.8500 | 0.8500 | 0.8800 | 0.8800 | 0.8800 | 0.9200 | 0.9200 | 0.9200 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 0               | 19     | 15     | 6               | 10     | 2      | 2      | 129    | 0      | 10     | 206    | 6      |
| Total Analysis Volume [veh/h]               | 1               | 75     | 61     | 22              | 41     | 9      | 8      | 516    | 1      | 41     | 825    | 25     |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 90                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Split | Split | Split | Split | Split | Split | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|-------|-------|-------|-------|-------|-------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 0     | 6     | 0     | 0     | 2     | 0     | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |       |       |       |       |       |       |         |         |         |         |         |         |
| Lead / Lag                   | -     | -     | -     | -     | -     | -     | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 0     | 10    | 0     | 0     | 10    | 0     | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 0     | 30    | 0     | 0     | 30    | 0     | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 0.0   | 3.0   | 0.0   | 0.0   | 3.0   | 0.0   | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0   | 1.0   | 0.0   | 0.0   | 1.0   | 0.0   | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 0     | 16    | 0     | 0     | 15    | 0     | 9       | 50      | 0       | 9       | 50      | 0       |
| Vehicle Extension [s]        | 0.0   | 3.0   | 0.0   | 0.0   | 3.0   | 0.0   | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0     | 5     | 0     | 0     | 5     | 0     | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0     | 10    | 0     | 0     | 10    | 0     | 0       | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |       | No    |       |       | No    |       |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0   | 2.0   | 0.0   | 0.0   | 2.0   | 0.0   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0   | 2.0   | 0.0   | 0.0   | 2.0   | 0.0   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               |       | No    |       |       | No    |       | No      | No      |         | No      | No      |         |
| Maximum Recall               |       | No    |       |       | No    |       | No      | No      |         | No      | No      |         |
| Pedestrian Recall            |       | No    |       |       | No    |       | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | C     | R     | C     | R     | L     | C     | R     | L    | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| C, Cycle Length [s]                     | 90    | 90    | 90    | 90    | 90    | 90    | 90    | 90   | 90    | 90    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00 | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 12    | 12    | 11    | 11    | 55    | 46    | 46    | 55   | 46    | 46    |
| g / C, Green / Cycle                    | 0.13  | 0.13  | 0.12  | 0.12  | 0.61  | 0.51  | 0.51  | 0.61 | 0.51  | 0.51  |
| (v / s)_i Volume / Saturation Flow Rate | 0.05  | 0.04  | 0.04  | 0.01  | 0.01  | 0.29  | 0.00  | 0.04 | 0.47  | 0.02  |
| s, saturation flow rate [veh/h]         | 1682  | 1431  | 1654  | 1431  | 754   | 1750  | 1488  | 935  | 1750  | 1431  |
| c, Capacity [veh/h]                     | 224   | 191   | 202   | 175   | 307   | 895   | 760   | 519  | 895   | 731   |
| d1, Uniform Delay [s]                   | 35.40 | 35.31 | 36.05 | 34.89 | 15.50 | 15.25 | 10.76 | 8.95 | 20.35 | 10.95 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50 | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 4.06  | 4.37  | 3.98  | 0.56  | 0.16  | 2.70  | 0.00  | 0.30 | 16.28 | 0.09  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |       |       |       |       |        |       |       |        |       |
|---------------------------------------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.34  | 0.32  | 0.31  | 0.05  | 0.03  | 0.58   | 0.00  | 0.08  | 0.92   | 0.03  |
| d, Delay for Lane Group [s/veh]       | 39.46 | 39.68 | 40.02 | 35.45 | 15.66 | 17.96  | 10.77 | 9.25  | 36.63  | 11.03 |
| Lane Group LOS                        | D     | D     | D     | D     | B     | B      | B     | A     | D      | B     |
| Critical Lane Group                   | Yes   | No    | Yes   | No    | Yes   | No     | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 1.71  | 1.40  | 1.47  | 0.20  | 0.06  | 6.67   | 0.01  | 0.28  | 16.84  | 0.23  |
| 50th-Percentile Queue Length [ft/ln]  | 42.79 | 34.99 | 36.80 | 4.99  | 1.48  | 166.83 | 0.22  | 7.06  | 421.11 | 5.66  |
| 95th-Percentile Queue Length [veh/ln] | 3.08  | 2.52  | 2.65  | 0.36  | 0.11  | 10.91  | 0.02  | 0.51  | 23.58  | 0.41  |
| 95th-Percentile Queue Length [ft/ln]  | 77.03 | 62.98 | 66.23 | 8.99  | 2.66  | 272.74 | 0.40  | 12.71 | 589.39 | 10.19 |

**Movement, Approach, & Intersection Results**

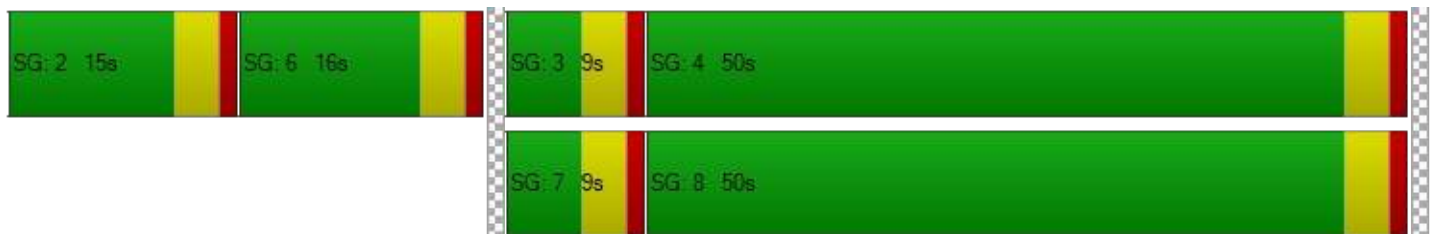
|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 39.46 | 39.46 | 39.68 | 40.02 | 40.02 | 35.45 | 15.66 | 17.96 | 10.77 | 9.25  | 36.63 | 11.03 |
| Movement LOS                    | D     | D     | D     | D     | D     | D     | B     | B     | B     | A     | D     | B     |
| d_A, Approach Delay [s/veh]     | 39.56 |       |       | 39.45 |       |       | 17.91 |       |       | 34.65 |       |       |
| Approach LOS                    | D     |       |       | D     |       |       | B     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 29.87 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.557 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 0.0   |  |  | 0.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 0.000 |  |  | 0.000 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | F     |  |  | F     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 267   |  |  | 244   |  |  | 1022  |  |  | 1022  |  |  |
| d_b, Bicycle Delay [s]                                   | 33.80 |  |  | 34.67 |  |  | 10.76 |  |  | 10.76 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.786 |  |  | 1.678 |  |  | 2.426 |  |  | 3.030 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | B     |  |  | C     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 2 | 6 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | - | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |





**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 44.0  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.761 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24     |        |        | US 24     |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound |        |        | Westbound |        |        |
| Lane Configuration           |                 |        |        |                 |        |        |           |        |        |           |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left      | Thru   | Right  | Left      | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1               | 0      | 1      | 1         | 0      | 1      | 1         | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00          | 100.00 | 343.00 | 200.00          | 100.00 | 220.00 | 350.00    | 100.00 | 350.00 | 390.00    | 100.00 | 390.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0         | 0      | 0      | 0         | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00           |        |        | 55.00     |        |        | 55.00     |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00      |        |        | 0.00      |        |        |
| Curb Present                 | Yes             |        |        | Yes             |        |        | Yes       |        |        | Yes       |        |        |
| Crosswalk                    | No              |        |        | Yes             |        |        | No        |        |        | Yes       |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 4               | 150    | 52     | 1               | 88     | 306    | 67     | 382    | 0      | 28     | 744    | 1      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 4               | 150    | 52     | 1               | 88     | 306    | 67     | 382    | 0      | 28     | 744    | 1      |
| Peak Hour Factor                            | 0.8500          | 0.8500 | 0.8500 | 0.9300          | 0.9300 | 0.9300 | 0.8500 | 0.8500 | 0.8500 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 1               | 44     | 15     | 0               | 24     | 82     | 20     | 112    | 0      | 8      | 214    | 0      |
| Total Analysis Volume [veh/h]               | 5               | 176    | 61     | 1               | 95     | 329    | 79     | 449    | 0      | 32     | 855    | 1      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 170                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 50      | 0       | 9       | 50      | 0       | 9       | 102     | 0       | 9       | 102     | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C     | R    | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| C, Cycle Length [s]                     | 170   | 170   | 170   | 170   | 170   | 170   | 170   | 170   | 170  | 170   | 170   | 170   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00 | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 55    | 46    | 46    | 55    | 46    | 46    | 107   | 98    | 98   | 107   | 98    | 98    |
| g / C, Green / Cycle                    | 0.32  | 0.27  | 0.27  | 0.32  | 0.27  | 0.27  | 0.63  | 0.58  | 0.58 | 0.63  | 0.58  | 0.58  |
| (v / s)_i Volume / Saturation Flow Rate | 0.00  | 0.05  | 0.04  | 0.00  | 0.03  | 0.23  | 0.12  | 0.27  | 0.00 | 0.04  | 0.51  | 0.00  |
| s, saturation flow rate [veh/h]         | 1226  | 3204  | 1431  | 1153  | 3204  | 1431  | 648   | 1683  | 1431 | 896   | 1683  | 1431  |
| c, Capacity [veh/h]                     | 432   | 867   | 387   | 388   | 867   | 387   | 215   | 970   | 825  | 495   | 970   | 825   |
| d1, Uniform Delay [s]                   | 39.06 | 47.85 | 47.24 | 39.07 | 46.61 | 58.73 | 31.10 | 20.79 | 0.00 | 14.01 | 30.99 | 15.26 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50 | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.05  | 0.53  | 0.87  | 0.01  | 0.26  | 20.26 | 4.79  | 1.59  | 0.00 | 0.25  | 11.36 | 0.00  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |       |        |       |        |      |       |        |       |
|---------------------------------------|-------|--------|-------|-------|-------|--------|-------|--------|------|-------|--------|-------|
| X, volume / capacity                  | 0.01  | 0.20   | 0.16  | 0.00  | 0.11  | 0.85   | 0.37  | 0.46   | 0.00 | 0.06  | 0.88   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 39.11 | 48.38  | 48.11 | 39.09 | 46.86 | 78.99  | 35.89 | 22.38  | 0.00 | 14.26 | 42.35  | 15.26 |
| Lane Group LOS                        | D     | D      | D     | D     | D     | E      | D     | C      | A    | B     | D      | B     |
| Critical Lane Group                   | Yes   | No     | No    | No    | No    | Yes    | Yes   | No     | No   | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.15  | 2.98   | 2.09  | 0.03  | 1.56  | 15.57  | 1.41  | 10.21  | 0.00 | 0.47  | 30.83  | 0.02  |
| 50th-Percentile Queue Length [ft/ln]  | 3.76  | 74.53  | 52.25 | 0.75  | 39.11 | 389.15 | 35.15 | 255.33 | 0.00 | 11.87 | 770.77 | 0.41  |
| 95th-Percentile Queue Length [veh/ln] | 0.27  | 5.37   | 3.76  | 0.05  | 2.82  | 22.04  | 2.53  | 15.45  | 0.00 | 0.85  | 39.94  | 0.03  |
| 95th-Percentile Queue Length [ft/ln]  | 6.77  | 134.15 | 94.04 | 1.36  | 70.41 | 550.92 | 63.27 | 386.36 | 0.00 | 21.36 | 998.43 | 0.75  |

**Movement, Approach, & Intersection Results**

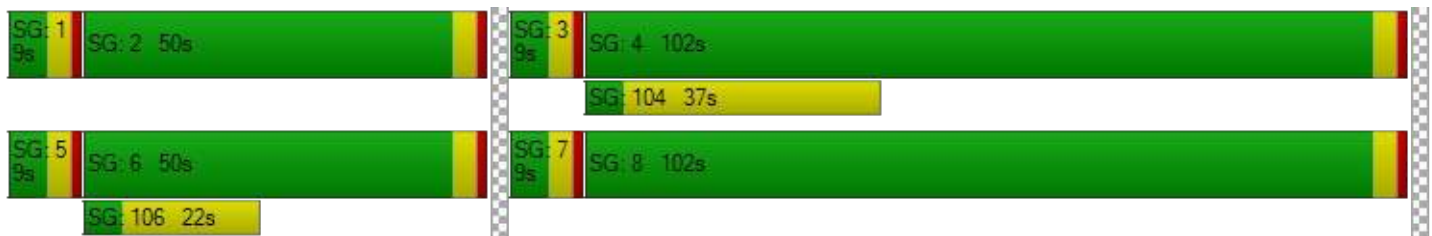
|                                 |       |       |       |       |       |       |       |       |      |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 39.11 | 48.38 | 48.11 | 39.09 | 46.86 | 78.99 | 35.89 | 22.38 | 0.00 | 14.26 | 42.35 | 15.26 |
| Movement LOS                    | D     | D     | D     | D     | D     | E     | D     | C     | A    | B     | D     | B     |
| d_A, Approach Delay [s/veh]     | 48.12 |       |       | 71.71 |       |       | 24.40 |       |      | 41.31 |       |       |
| Approach LOS                    | D     |       |       | E     |       |       | C     |       |      | D     |       |       |
| d_I, Intersection Delay [s/veh] | 44.02 |       |       |       |       |       |       |       |      |       |       |       |
| Intersection LOS                | D     |       |       |       |       |       |       |       |      |       |       |       |
| Intersection V/C                | 0.761 |       |       |       |       |       |       |       |      |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   | 9.0   | 0.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 0.00  | 76.24 | 0.00  | 76.24 |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 | 2.679 | 0.000 | 2.831 |
| Crosswalk LOS  | F     | B     | F     | C     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 541   | 541   | 1153  | 1153  |
| d_b, Bicycle Delay [s]                                   | 45.22 | 45.22 | 15.25 | 15.25 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.759 | 1.910 | 2.431 | 3.025 |
| Bicycle LOS  | A     | A     | B     | C     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 24.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.552 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           | ↔↔↔            |        |        | ↔↔             |        |        | ↔↔↔        |        |        | ↔↔↔        |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 150.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   |                |        |        |                |        |        |            |        |        |            |        |        |
| Base Volume Input [veh/h]                   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Peak Hour Factor                            | 0.8500         | 0.8500 | 0.8500 | 0.8500         | 0.8500 | 0.8500 | 0.9800     | 0.9800 | 0.9800 | 0.9300     | 0.9300 | 0.9300 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 24             | 11     | 4      | 19             | 3      | 30     | 23         | 371    | 27     | 3          | 285    | 11     |
| Total Analysis Volume [veh/h]               | 98             | 46     | 15     | 75             | 12     | 121    | 92         | 1485   | 108    | 13         | 1140   | 45     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| Bicycle Volume [bicycles/h]                 |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 140                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 0       | 8       | 0       | 0       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 0       | 87      | 0       | 0       | 87      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0       | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 49    | 49    | 49    | 49    | 49    | 83    | 83    | 83    | 83    | 83    | 83    |
| g / C, Green / Cycle                    | 0.35  | 0.35  | 0.35  | 0.35  | 0.35  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  |
| (v / s)_i Volume / Saturation Flow Rate | 0.09  | 0.03  | 0.01  | 0.06  | 0.09  | 0.21  | 0.46  | 0.08  | 0.04  | 0.36  | 0.03  |
| s, saturation flow rate [veh/h]         | 1131  | 1683  | 1431  | 1224  | 1508  | 444   | 3204  | 1431  | 319   | 3204  | 1431  |
| c, Capacity [veh/h]                     | 360   | 589   | 501   | 440   | 528   | 209   | 1900  | 848   | 124   | 1900  | 848   |
| d1, Uniform Delay [s]                   | 40.52 | 30.41 | 29.89 | 34.74 | 32.44 | 36.88 | 21.63 | 12.55 | 43.61 | 18.01 | 11.98 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 1.86  | 0.26  | 0.11  | 0.84  | 1.14  | 6.64  | 3.28  | 0.31  | 1.70  | 1.41  | 0.12  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |       |       |       |        |        |        |       |       |        |       |
|---------------------------------------|--------|-------|-------|-------|--------|--------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.27   | 0.08  | 0.03  | 0.17  | 0.25   | 0.44   | 0.78   | 0.13  | 0.10  | 0.60   | 0.05  |
| d, Delay for Lane Group [s/veh]       | 42.38  | 30.66 | 30.00 | 35.58 | 33.58  | 43.52  | 24.91  | 12.86 | 45.30 | 19.42  | 12.10 |
| Lane Group LOS                        | D      | C     | C     | D     | C      | D      | C      | B     | D     | B      | B     |
| Critical Lane Group                   | No     | No    | No    | No    | Yes    | No     | Yes    | No    | No    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 2.89   | 1.09  | 0.35  | 1.99  | 3.43   | 2.83   | 17.21  | 1.45  | 0.41  | 10.82  | 0.58  |
| 50th-Percentile Queue Length [ft/ln]  | 72.16  | 27.27 | 8.79  | 49.82 | 85.86  | 70.86  | 430.30 | 36.32 | 10.28 | 270.59 | 14.42 |
| 95th-Percentile Queue Length [veh/ln] | 5.20   | 1.96  | 0.63  | 3.59  | 6.18   | 5.10   | 24.02  | 2.62  | 0.74  | 16.22  | 1.04  |
| 95th-Percentile Queue Length [ft/ln]  | 129.89 | 49.08 | 15.82 | 89.68 | 154.54 | 127.55 | 600.40 | 65.38 | 18.51 | 405.48 | 25.96 |

**Movement, Approach, & Intersection Results**

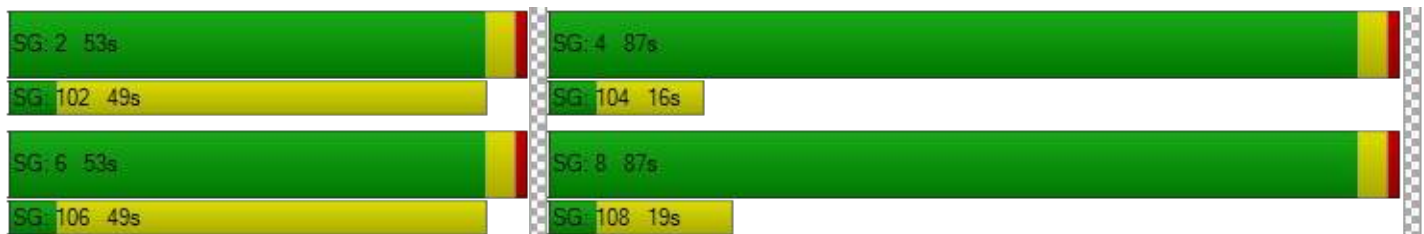
|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 42.38 | 30.66 | 30.00 | 35.58 | 33.58 | 33.58 | 43.52 | 24.91 | 12.86 | 45.30 | 19.42 | 12.10 |
| Movement LOS                    | D     | C     | C     | D     | C     | C     | D     | C     | B     | D     | B     | B     |
| d_A, Approach Delay [s/veh]     | 37.83 |       |       | 34.30 |       |       | 25.15 |       |       | 19.43 |       |       |
| Approach LOS                    | D     |       |       | C     |       |       | C     |       |       | B     |       |       |
| d_I, Intersection Delay [s/veh] | 24.25 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.552 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 61.29 | 61.29 | 61.29 | 61.29 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.255 | 2.220 | 3.533 | 3.431 |
| Crosswalk LOS  | B     | B     | D     | C     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 700   | 700   | 1186  | 1186  |
| d_b, Bicycle Delay [s]                                   | 29.58 | 29.58 | 11.60 | 11.60 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.822 | 1.903 | 2.950 | 2.548 |
| Bicycle LOS  | A     | A     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 11.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.014 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 8               | 7      | 24     | 9               | 4      | 2      | 0              | 72     | 13     | 34                  | 108    | 6      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 8               | 7      | 24     | 9               | 4      | 2      | 0              | 72     | 13     | 34                  | 108    | 6      |
| Peak Hour Factor                        | 0.8500          | 0.8500 | 0.8500 | 0.8500          | 0.8500 | 0.8500 | 0.8500         | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 2               | 2      | 7      | 3               | 1      | 1      | 0              | 21     | 4      | 10                  | 32     | 2      |
| Total Analysis Volume [veh/h]           | 9               | 8      | 28     | 11              | 5      | 2      | 0              | 85     | 15     | 40                  | 127    | 7      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.01  | 0.01  | 0.03 | 0.02  | 0.01  | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 11.01 | 11.37 | 9.01 | 11.23 | 11.30 | 9.09 | 7.48 | 0.00 | 0.00 | 7.48 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.18  | 0.18  | 0.18 | 0.09  | 0.09  | 0.09 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 4.52  | 4.52  | 4.52 | 2.25  | 2.25  | 2.25 | 0.00 | 0.00 | 0.00 | 2.06 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 9.83  |       |      | 11.01 |       |      | 0.00 |      |      | 1.72 |      |      |
| Approach LOS                          | A     |       |      | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 2.79  |       |      |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report****Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 11.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.024 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | +                   |        |        | +                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 95.00               | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 4                       | 0      | 16     | 12                      | 0      | 2      | 2                   | 83     | 3      | 13                  | 161    | 25     |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 4                       | 0      | 16     | 12                      | 0      | 2      | 2                   | 83     | 3      | 13                  | 161    | 25     |
| Peak Hour Factor                        | 0.8800                  | 0.8800 | 0.8800 | 0.8500                  | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 1                       | 0      | 5      | 4                       | 0      | 1      | 1                   | 24     | 1      | 4                   | 47     | 7      |
| Total Analysis Volume [veh/h]           | 5                       | 0      | 18     | 14                      | 0      | 2      | 2                   | 98     | 4      | 15                  | 189    | 29     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.01  | 0.00  | 0.02 | 0.02  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 11.03 | 11.48 | 8.89 | 11.25 | 11.41 | 9.46 | 7.67 | 0.00 | 0.00 | 7.44 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.08  | 0.08  | 0.08 | 0.08  | 0.08  | 0.08 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 2.08  | 2.08  | 2.08 | 2.01  | 2.01  | 2.01 | 0.11 | 0.00 | 0.00 | 0.76 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 9.35  |       |      | 11.02 |       |      | 0.15 |      |      | 0.48 |      |      |
| Approach LOS                          | A     |       |      | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 1.38  |       |      |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 10.5  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.160 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |



**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 63                | 35     | 21                  | 91     | 162                 | 27     |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 63                | 35     | 21                  | 91     | 162                 | 27     |
| Peak Hour Factor                            | 0.8500            | 0.8500 | 0.8500              | 0.8500 | 0.8500              | 0.8500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 19                | 10     | 6                   | 27     | 48                  | 8      |
| Total Analysis Volume [veh/h]               | 74                | 41     | 25                  | 107    | 191                 | 32     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 28         | 0          | 0          | 32         | 32         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | R     | L     | C    | C    | R    |
|---|-------|-------|-------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00  | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 24    | 24    | 28    | 28   | 28   | 28   |
| g / C, Green / Cycle                    | 0.40  | 0.40  | 0.47  | 0.47 | 0.47 | 0.47 |
| (v / s)_i Volume / Saturation Flow Rate | 0.05  | 0.03  | 0.02  | 0.06 | 0.11 | 0.02 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 1073  | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 641   | 572   | 512   | 785  | 785  | 668  |
| d1, Uniform Delay [s]                   | 11.32 | 11.12 | 12.38 | 9.11 | 9.63 | 8.73 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.37  | 0.24  | 0.18  | 0.36 | 0.73 | 0.14 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |       |      |
|---------------------------------------|-------|-------|-------|-------|-------|------|
| X, volume / capacity                  | 0.12  | 0.07  | 0.05  | 0.14  | 0.24  | 0.05 |
| d, Delay for Lane Group [s/veh]       | 11.69 | 11.36 | 12.56 | 9.47  | 10.36 | 8.86 |
| Lane Group LOS                        | B     | B     | B     | A     | B     | A    |
| Critical Lane Group                   | Yes   | No    | No    | No    | Yes   | No   |
| 50th-Percentile Queue Length [veh/ln] | 0.60  | 0.33  | 0.22  | 0.74  | 1.41  | 0.21 |
| 50th-Percentile Queue Length [ft/ln]  | 14.99 | 8.23  | 5.42  | 18.48 | 35.13 | 5.36 |
| 95th-Percentile Queue Length [veh/ln] | 1.08  | 0.59  | 0.39  | 1.33  | 2.53  | 0.39 |
| 95th-Percentile Queue Length [ft/ln]  | 26.98 | 14.82 | 9.76  | 33.26 | 63.24 | 9.64 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |      |       |      |
|---------------------------------|-------|-------|-------|------|-------|------|
| d_M, Delay for Movement [s/veh] | 11.69 | 11.36 | 12.56 | 9.47 | 10.36 | 8.86 |
| Movement LOS                    | B     | B     | B     | A    | B     | A    |
| d_A, Approach Delay [s/veh]     | 11.57 |       | 10.06 |      | 10.15 |      |
| Approach LOS                    | B     |       | B     |      | B     |      |
| d_I, Intersection Delay [s/veh] | 10.47 |       |       |      |       |      |
| Intersection LOS                | B     |       |       |      |       |      |
| Intersection V/C                | 0.160 |       |       |      |       |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.022 | 2.059 | 2.074 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 800   | 933   | 933   |
| d_b, Bicycle Delay [s]                                   | 10.80 | 8.53  | 8.53  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 1.777 | 1.928 |
| Bicycle LOS  | A     | A     | A     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 17.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.260 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound  |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | ⇐⇐⇐             |        |        | ⇐⇐⇐         |        |        | ⇐⇐⇐                 |        |        | ⇐⇐⇐                 |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left        | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00       | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1           | 0      | 1      | 2                   | 0      | 1      | 1                   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00          | 100.00 | 250.00 | 280.00      | 100.00 | 190.00 | 350.00              | 100.00 | 300.00 | 265.00              | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00        | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00       |        |        | 35.00               |        |        | 30.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00        |        |        | 0.00                |        |        | 0.00                |        |        |
| Curb Present                 | Yes             |        |        | Yes         |        |        | Yes                 |        |        | Yes                 |        |        |
| Crosswalk                    | No              |        |        | No          |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]                   | 80              | 386    | 33     | 72          | 187    | 47     | 43                  | 32     | 69     | 22                  | 47     | 98     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 80              | 386    | 33     | 72          | 187    | 47     | 43                  | 32     | 69     | 22                  | 47     | 98     |
| Peak Hour Factor                            | 0.8800          | 0.8800 | 0.8800 | 0.8500      | 0.8500 | 0.8500 | 0.9000              | 0.9000 | 0.9000 | 0.9100              | 0.9100 | 0.9100 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 23              | 110    | 9      | 21          | 55     | 14     | 12                  | 9      | 19     | 6                   | 13     | 27     |
| Total Analysis Volume [veh/h]               | 91              | 439    | 38     | 85          | 220    | 55     | 48                  | 36     | 77     | 24                  | 52     | 108    |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No                  |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 70                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 9       | 30      | 0       | 13       | 22      | 0       | 9       | 18      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L    | C     | R     | L    | C     | R     | L     | C     | R     | L     | C     | R     |
|---|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 70   | 70    | 70    | 70   | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| L, Total Lost Time per Cycle [s]        | 4.00 | 4.00  | 4.00  | 4.00 | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00 | 2.00  | 2.00  | 0.00 | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 35   | 26    | 26    | 35   | 26    | 26    | 9     | 18    | 18    | 27    | 14    | 14    |
| g / C, Green / Cycle                    | 0.50 | 0.37  | 0.37  | 0.50 | 0.37  | 0.37  | 0.13  | 0.26  | 0.26  | 0.39  | 0.20  | 0.20  |
| (v / s)_i Volume / Saturation Flow Rate | 0.08 | 0.14  | 0.03  | 0.08 | 0.07  | 0.04  | 0.02  | 0.02  | 0.05  | 0.02  | 0.02  | 0.08  |
| s, saturation flow rate [veh/h]         | 1156 | 3204  | 1431  | 1004 | 3204  | 1431  | 3113  | 1683  | 1431  | 1330  | 3204  | 1431  |
| c, Capacity [veh/h]                     | 678  | 1190  | 531   | 566  | 1190  | 531   | 400   | 433   | 368   | 642   | 641   | 286   |
| d1, Uniform Delay [s]                   | 9.36 | 16.02 | 14.21 | 9.63 | 14.85 | 14.38 | 26.99 | 19.74 | 20.41 | 13.42 | 22.77 | 24.23 |
| k, delay calibration                    | 0.50 | 0.50  | 0.50  | 0.50 | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.41 | 0.88  | 0.26  | 0.56 | 0.34  | 0.39  | 0.61  | 0.38  | 1.29  | 0.11  | 0.25  | 3.76  |
| d3, Initial Queue Delay [s]             | 0.00 | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |       |       |       |       |       |       |       |       |
|---------------------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| X, volume / capacity                  | 0.13  | 0.37   | 0.07  | 0.15  | 0.18  | 0.10  | 0.12  | 0.08  | 0.21  | 0.04  | 0.08  | 0.38  |
| d, Delay for Lane Group [s/veh]       | 9.77  | 16.90  | 14.47 | 10.19 | 15.19 | 14.77 | 27.61 | 20.11 | 21.70 | 13.53 | 23.02 | 27.99 |
| Lane Group LOS                        | A     | B      | B     | B     | B     | B     | C     | C     | C     | B     | C     | C     |
| Critical Lane Group                   | No    | Yes    | No    | Yes   | No    | No    | Yes   | No    | No    | No    | No    | Yes   |
| 50th-Percentile Queue Length [veh/ln] | 0.72  | 2.46   | 0.39  | 0.68  | 1.13  | 0.58  | 0.37  | 0.46  | 1.05  | 0.24  | 0.36  | 1.78  |
| 50th-Percentile Queue Length [ft/ln]  | 17.88 | 61.58  | 9.85  | 17.04 | 28.32 | 14.47 | 9.28  | 11.56 | 26.36 | 6.00  | 8.92  | 44.49 |
| 95th-Percentile Queue Length [veh/ln] | 1.29  | 4.43   | 0.71  | 1.23  | 2.04  | 1.04  | 0.67  | 0.83  | 1.90  | 0.43  | 0.64  | 3.20  |
| 95th-Percentile Queue Length [ft/ln]  | 32.19 | 110.84 | 17.74 | 30.68 | 50.98 | 26.05 | 16.71 | 20.80 | 47.44 | 10.81 | 16.06 | 80.07 |



**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 9.77  | 16.90 | 14.47 | 10.19 | 15.19 | 14.77 | 27.61 | 20.11 | 21.70 | 13.53 | 23.02 | 27.99 |
| Movement LOS                    | A     | B     | B     | B     | B     | B     | C     | C     | C     | B     | C     | C     |
| d_A, Approach Delay [s/veh]     | 15.60 |       |       | 13.95 |       |       | 23.11 |       |       | 24.70 |       |       |
| Approach LOS                    | B     |       |       | B     |       |       | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 17.40 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | B     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.260 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 26.58 |  |  | 26.58 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.562 |  |  | 2.404 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 743   |  |  | 743   |  |  | 514   |  |  | 400   |  |  |
| d_b, Bicycle Delay [s]                                   | 13.83 |  |  | 13.83 |  |  | 19.31 |  |  | 22.40 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 2.028 |  |  | 1.857 |  |  | 1.825 |  |  | 1.711 |  |  |
| Bicycle LOS  | B     |  |  | A     |  |  | A     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report  
Intersection 6: Old Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 31.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.585 |

**Intersection Setup**

| Name                         | Old Meridian Rd |        |        | Old Meridian Rd |        |       | US 24     |        |        | US 24     |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|-------|-----------|--------|--------|-----------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |       | Eastbound |        |        | Westbound |        |        |
| Lane Configuration           | ⇌               |        |        | ⇌               |        |       | ⇌         |        |        | ⇌         |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right | Left      | Thru   | Right  | Left      | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00           | 12.00  | 12.00 | 13.00     | 13.00  | 13.00  | 14.00     | 14.00  | 12.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 1      | 0               | 0      | 1     | 1         | 0      | 0      | 1         | 0      | 1      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 150.00 | 100.00          | 100.00 | 50.00 | 400.00    | 100.00 | 100.00 | 550.00    | 100.00 | 550.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 1      | 0               | 0      | 0     | 0         | 0      | 0      | 0         | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 50.00  | 0.00            | 0.00   | 0.00  | 0.00      | 0.00   | 0.00   | 0.00      | 0.00   | 500.00 |
| Speed [mph]                  | 40.00           |        |        | 30.00           |        |       | 55.00     |        |        | 55.00     |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |       | 0.00      |        |        | 0.00      |        |        |
| Curb Present                 | No              |        |        | No              |        |       | No        |        |        | No        |        |        |
| Crosswalk                    | No              |        |        | No              |        |       | No        |        |        | No        |        |        |

**Volumes**

| Name  | Old Meridian Rd |        |        | Old Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 1               | 117    | 107    | 36              | 60     | 9      | 16     | 652    | 2      | 86     | 526    | 27     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 1               | 117    | 107    | 36              | 60     | 9      | 16     | 652    | 2      | 86     | 526    | 27     |
| Peak Hour Factor                            | 0.9000          | 0.9000 | 0.9000 | 0.9600          | 0.9600 | 0.9600 | 0.9100 | 0.9100 | 0.9100 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 0               | 33     | 30     | 9               | 16     | 2      | 4      | 179    | 1      | 25     | 151    | 8      |
| Total Analysis Volume [veh/h]               | 1               | 130    | 119    | 38              | 63     | 9      | 18     | 716    | 2      | 99     | 605    | 31     |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 80                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Split | Split | Split | Split | Split | Split | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|-------|-------|-------|-------|-------|-------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 0     | 6     | 0     | 0     | 2     | 0     | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |       |       |       |       |       |       |         |         |         |         |         |         |
| Lead / Lag                   | -     | -     | -     | -     | -     | -     | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 0     | 10    | 0     | 0     | 10    | 0     | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 0     | 30    | 0     | 0     | 30    | 0     | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 0.0   | 3.0   | 0.0   | 0.0   | 3.0   | 0.0   | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0   | 1.0   | 0.0   | 0.0   | 1.0   | 0.0   | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 0     | 16    | 0     | 0     | 14    | 0     | 9       | 40      | 0       | 10      | 41      | 0       |
| Vehicle Extension [s]        | 0.0   | 3.0   | 0.0   | 0.0   | 3.0   | 0.0   | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0     | 5     | 0     | 0     | 5     | 0     | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0     | 10    | 0     | 0     | 10    | 0     | 0       | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |       | No    |       |       | No    |       |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0   | 2.0   | 0.0   | 0.0   | 2.0   | 0.0   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0   | 2.0   | 0.0   | 0.0   | 2.0   | 0.0   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               |       | No    |       |       | No    |       | No      | No      |         | No      | No      |         |
| Maximum Recall               |       | No    |       |       | No    |       | No      | No      |         | No      | No      |         |
| Pedestrian Recall            |       | No    |       |       | No    |       | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | C     | R     | C     | R     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 80    | 80    | 80    | 80    | 80    | 80    | 80    | 80    | 80    | 80    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 12    | 12    | 10    | 10    | 46    | 36    | 36    | 46    | 37    | 37    |
| g / C, Green / Cycle                    | 0.15  | 0.15  | 0.13  | 0.13  | 0.58  | 0.45  | 0.45  | 0.58  | 0.46  | 0.46  |
| (v / s)_i Volume / Saturation Flow Rate | 0.08  | 0.08  | 0.06  | 0.01  | 0.02  | 0.41  | 0.00  | 0.12  | 0.35  | 0.02  |
| s, saturation flow rate [veh/h]         | 1682  | 1431  | 1652  | 1431  | 900   | 1750  | 1488  | 858   | 1750  | 1431  |
| c, Capacity [veh/h]                     | 252   | 215   | 206   | 179   | 433   | 788   | 669   | 363   | 810   | 662   |
| d1, Uniform Delay [s]                   | 31.34 | 31.52 | 32.62 | 30.82 | 10.61 | 20.48 | 12.12 | 14.45 | 17.66 | 11.81 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 7.44  | 9.95  | 8.06  | 0.53  | 0.18  | 16.33 | 0.01  | 1.85  | 6.24  | 0.13  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |        |        |       |       |        |       |       |        |       |
|---------------------------------------|--------|--------|--------|-------|-------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.52   | 0.55   | 0.49   | 0.05  | 0.04  | 0.91   | 0.00  | 0.27  | 0.75   | 0.05  |
| d, Delay for Lane Group [s/veh]       | 38.78  | 41.47  | 40.68  | 31.35 | 10.79 | 36.80  | 12.12 | 16.30 | 23.90  | 11.95 |
| Lane Group LOS                        | D      | D      | D      | C     | B     | D      | B     | B     | C      | B     |
| Critical Lane Group                   | No     | Yes    | Yes    | No    | No    | Yes    | No    | Yes   | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 2.73   | 2.61   | 2.24   | 0.18  | 0.12  | 13.51  | 0.02  | 0.76  | 8.73   | 0.28  |
| 50th-Percentile Queue Length [ft/ln]  | 68.28  | 65.29  | 56.10  | 4.41  | 3.01  | 337.74 | 0.45  | 18.93 | 218.21 | 6.89  |
| 95th-Percentile Queue Length [veh/ln] | 4.92   | 4.70   | 4.04   | 0.32  | 0.22  | 19.54  | 0.03  | 1.36  | 13.57  | 0.50  |
| 95th-Percentile Queue Length [ft/ln]  | 122.90 | 117.52 | 100.98 | 7.94  | 5.42  | 488.44 | 0.81  | 34.07 | 339.34 | 12.40 |

**Movement, Approach, & Intersection Results**

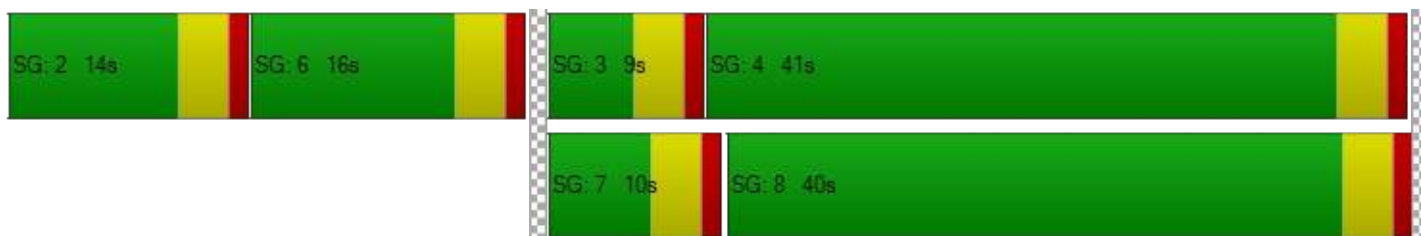
|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 38.78 | 38.78 | 41.47 | 40.68 | 40.68 | 31.35 | 10.79 | 36.80 | 12.12 | 16.30 | 23.90 | 11.95 |
| Movement LOS                    | D     | D     | D     | D     | D     | C     | B     | D     | B     | B     | C     | B     |
| d_A, Approach Delay [s/veh]     | 40.06 |       |       | 39.92 |       |       | 36.10 |       |       | 22.37 |       |       |
| Approach LOS                    | D     |       |       | D     |       |       | D     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 31.36 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.585 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 0.0   |  |  | 0.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 0.000 |  |  | 0.000 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | F     |  |  | F     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 300   |  |  | 250   |  |  | 900   |  |  | 925   |  |  |
| d_b, Bicycle Delay [s]                                   | 28.90 |  |  | 30.63 |  |  | 12.10 |  |  | 11.56 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.972 |  |  | 1.741 |  |  | 2.774 |  |  | 2.772 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | C     |  |  | C     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 2 | 6 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | - | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 34.5  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.655 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24     |        |        | US 24     |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound |        |        | Westbound |        |        |
| Lane Configuration           |                 |        |        |                 |        |        |           |        |        |           |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left      | Thru   | Right  | Left      | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1               | 0      | 1      | 1         | 0      | 1      | 1         | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00          | 100.00 | 343.00 | 200.00          | 100.00 | 220.00 | 350.00    | 100.00 | 350.00 | 390.00    | 100.00 | 390.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0         | 0      | 0      | 0         | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00           |        |        | 55.00     |        |        | 55.00     |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00      |        |        | 0.00      |        |        |
| Curb Present                 | Yes             |        |        | Yes             |        |        | Yes       |        |        | Yes       |        |        |
| Crosswalk                    | No              |        |        | Yes             |        |        | No        |        |        | Yes       |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   | 1               | 222    | 68     | 1               | 199    | 144    | 277    | 768    | 1      | 95     | 496    | 2      |
| Base Volume Input [veh/h]                   | 1               | 222    | 68     | 1               | 199    | 144    | 277    | 768    | 1      | 95     | 496    | 2      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 1               | 222    | 68     | 1               | 199    | 144    | 277    | 768    | 1      | 95     | 496    | 2      |
| Peak Hour Factor                            | 0.9800          | 0.9800 | 0.9800 | 0.8500          | 0.8500 | 0.8500 | 0.9000 | 0.9000 | 0.9000 | 0.8800 | 0.8800 | 0.8800 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 0               | 57     | 17     | 0               | 59     | 42     | 77     | 213    | 0      | 27     | 141    | 1      |
| Total Analysis Volume [veh/h]               | 1               | 227    | 69     | 1               | 234    | 169    | 308    | 853    | 1      | 108    | 564    | 2      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 110                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 29      | 0       | 9       | 29      | 0       | 12      | 63      | 0       | 9       | 60      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 34    | 25    | 25    | 34    | 25    | 25    | 68    | 59    | 59    | 68    | 56    | 56    |
| g / C, Green / Cycle                    | 0.31  | 0.23  | 0.23  | 0.31  | 0.23  | 0.23  | 0.62  | 0.54  | 0.54  | 0.62  | 0.51  | 0.51  |
| (v / s)_i Volume / Saturation Flow Rate | 0.00  | 0.07  | 0.05  | 0.00  | 0.07  | 0.12  | 0.35  | 0.51  | 0.00  | 0.16  | 0.34  | 0.00  |
| s, saturation flow rate [veh/h]         | 1149  | 3204  | 1431  | 1154  | 3204  | 1431  | 885   | 1683  | 1431  | 687   | 1683  | 1431  |
| c, Capacity [veh/h]                     | 387   | 728   | 325   | 390   | 728   | 325   | 453   | 903   | 767   | 242   | 857   | 728   |
| d1, Uniform Delay [s]                   | 26.47 | 35.34 | 34.51 | 26.46 | 35.43 | 37.24 | 15.58 | 23.97 | 11.83 | 23.71 | 19.94 | 13.27 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.01  | 1.12  | 1.49  | 0.01  | 1.17  | 5.84  | 7.97  | 19.26 | 0.00  | 5.86  | 3.95  | 0.01  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |        |        |        |        |       |       |        |       |
|---------------------------------------|-------|--------|-------|-------|--------|--------|--------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.00  | 0.31   | 0.21  | 0.00  | 0.32   | 0.52   | 0.68   | 0.94   | 0.00  | 0.45  | 0.66   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 26.49 | 36.46  | 35.99 | 26.47 | 36.59  | 43.08  | 23.54  | 43.23  | 11.83 | 29.56 | 23.88  | 13.28 |
| Lane Group LOS                        | C     | D      | D     | C     | D      | D      | C      | D      | B     | C     | C      | B     |
| Critical Lane Group                   | Yes   | No     | No    | No    | No     | Yes    | No     | Yes    | No    | Yes   | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.02  | 2.62   | 1.62  | 0.02  | 2.71   | 4.46   | 3.92   | 22.38  | 0.01  | 1.28  | 10.25  | 0.02  |
| 50th-Percentile Queue Length [ft/ln]  | 0.48  | 65.42  | 40.51 | 0.48  | 67.64  | 111.39 | 97.96  | 559.45 | 0.27  | 31.98 | 256.31 | 0.58  |
| 95th-Percentile Queue Length [veh/ln] | 0.03  | 4.71   | 2.92  | 0.03  | 4.87   | 7.92   | 7.05   | 30.14  | 0.02  | 2.30  | 15.50  | 0.04  |
| 95th-Percentile Queue Length [ft/ln]  | 0.87  | 117.76 | 72.92 | 0.87  | 121.74 | 197.94 | 176.33 | 753.40 | 0.49  | 57.56 | 387.59 | 1.05  |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 26.49 | 36.46 | 35.99 | 26.47 | 36.59 | 43.08 | 23.54 | 43.23 | 11.83 | 29.56 | 23.88 | 13.28 |
| Movement LOS                    | C     | D     | D     | C     | D     | D     | C     | D     | B     | C     | C     | B     |
| d_A, Approach Delay [s/veh]     | 36.32 |       |       | 39.28 |       |       | 37.99 |       |       | 24.76 |       |       |
| Approach LOS                    | D     |       |       | D     |       |       | D     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 34.48 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.655 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   | 9.0   | 0.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 0.00  | 46.37 | 0.00  | 46.37 |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 | 2.873 | 0.000 | 2.882 |
| Crosswalk LOS  | F     | C     | F     | C     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 455   | 455   | 1073  | 1018  |
| d_b, Bicycle Delay [s]                                   | 32.84 | 32.84 | 11.82 | 13.25 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.805 | 1.893 | 3.477 | 2.672 |
| Bicycle LOS  | A     | A     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Appendix D**

**Full Build-Out (2025) LOS Reports**

**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 24.3  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.658 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           |                |        |        |                |        |        |            |        |        |            |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 150.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Base Volume Input [veh/h]                   | 127            | 21     | 4      | 37             | 17     | 111    | 42         | 728    | 53     | 13         | 1279   | 21     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 1.1255         | 1.1255 | 1.1255 | 1.1255         | 1.1255 | 1.1255 | 1.1255     | 1.1255 | 1.1255 | 1.1255     | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 143            | 24     | 5      | 42             | 19     | 125    | 47         | 819    | 60     | 15         | 1440   | 24     |
| Peak Hour Factor                            | 0.8500         | 0.8500 | 0.8500 | 0.8500         | 0.8500 | 0.8500 | 0.8500     | 0.8500 | 0.8500 | 0.8900     | 0.8900 | 0.8900 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 42             | 7      | 1      | 12             | 6      | 37     | 14         | 241    | 18     | 4          | 404    | 7      |
| Total Analysis Volume [veh/h]               | 168            | 28     | 6      | 49             | 22     | 147    | 55         | 964    | 71     | 17         | 1618   | 27     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 150                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 0       | 8       | 0       | 0       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 0       | 97      | 0       | 0       | 97      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0       | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 49    | 49    | 49    | 49    | 49    | 93    | 93    | 93    | 93    | 93    | 93    |
| g / C, Green / Cycle                    | 0.33  | 0.33  | 0.33  | 0.33  | 0.33  | 0.62  | 0.62  | 0.62  | 0.62  | 0.62  | 0.62  |
| (v / s)_i Volume / Saturation Flow Rate | 0.15  | 0.02  | 0.00  | 0.04  | 0.11  | 0.20  | 0.30  | 0.05  | 0.03  | 0.50  | 0.02  |
| s, saturation flow rate [veh/h]         | 1094  | 1683  | 1431  | 1244  | 1517  | 281   | 3204  | 1431  | 524   | 3204  | 1431  |
| c, Capacity [veh/h]                     | 305   | 552   | 469   | 430   | 498   | 106   | 1982  | 885   | 276   | 1982  | 885   |
| d1, Uniform Delay [s]                   | 51.89 | 34.43 | 34.00 | 37.52 | 38.10 | 58.77 | 15.61 | 11.48 | 24.76 | 22.04 | 11.12 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 7.01  | 0.17  | 0.05  | 0.54  | 1.85  | 3.90  | 0.19  | 0.04  | 0.09  | 0.86  | 0.01  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |       |       |       |        |       |        |       |       |        |       |
|---------------------------------------|--------|-------|-------|-------|--------|-------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.55   | 0.05  | 0.01  | 0.11  | 0.34   | 0.52  | 0.49   | 0.08  | 0.06  | 0.82   | 0.03  |
| d, Delay for Lane Group [s/veh]       | 58.90  | 34.61 | 34.05 | 38.06 | 39.95  | 62.67 | 15.79  | 11.52 | 24.85 | 22.90  | 11.13 |
| Lane Group LOS                        | E      | C     | C     | D     | D      | E     | B      | B     | C     | C      | B     |
| Critical Lane Group                   | Yes    | No    | No    | No    | No     | No    | No     | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 6.31   | 0.74  | 0.16  | 1.39  | 5.04   | 2.10  | 8.22   | 0.89  | 0.35  | 19.60  | 0.33  |
| 50th-Percentile Queue Length [ft/ln]  | 157.71 | 18.40 | 3.91  | 34.79 | 125.88 | 52.51 | 205.53 | 22.37 | 8.75  | 490.10 | 8.24  |
| 95th-Percentile Queue Length [veh/ln] | 10.43  | 1.32  | 0.28  | 2.50  | 8.71   | 3.78  | 12.92  | 1.61  | 0.63  | 26.87  | 0.59  |
| 95th-Percentile Queue Length [ft/ln]  | 260.69 | 33.11 | 7.04  | 62.62 | 217.87 | 94.52 | 323.09 | 40.27 | 15.74 | 671.63 | 14.83 |



**Movement, Approach, & Intersection Results**

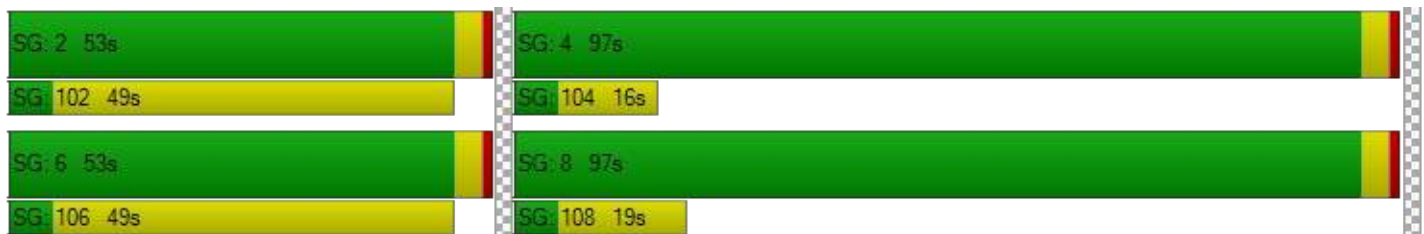
|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 58.90 | 34.61 | 34.05 | 38.06 | 39.95 | 39.95 | 62.67 | 15.79 | 11.52 | 24.85 | 22.90 | 11.13 |
| Movement LOS                    | E     | C     | C     | D     | D     | D     | E     | B     | B     | C     | C     | B     |
| d_A, Approach Delay [s/veh]     | 54.79 |       |       | 39.52 |       |       | 17.88 |       |       | 22.73 |       |       |
| Approach LOS                    | D     |       |       | D     |       |       | B     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 24.26 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.658 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 66.27 | 66.27 | 66.27 | 66.27 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.269 | 2.151 | 3.630 | 3.374 |
| Crosswalk LOS  | B     | B     | D     | C     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 653   | 653   | 1240  | 1240  |
| d_b, Bicycle Delay [s]                                   | 34.00 | 34.00 | 10.83 | 10.83 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.893 | 1.919 | 2.459 | 2.931 |
| Bicycle LOS  | A     | A     | B     | C     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 10.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.006 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 15              | 3      | 41     | 8               | 6      | 1      | 1              | 48     | 5      | 21                  | 83     | 3      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.1255          | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 | 1.1255         | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 17              | 3      | 46     | 9               | 7      | 1      | 1              | 54     | 6      | 24                  | 93     | 3      |
| Peak Hour Factor                        | 0.8500          | 0.8500 | 0.8500 | 0.8500          | 0.8500 | 0.8500 | 0.8600         | 0.8600 | 0.8600 | 0.8800              | 0.8800 | 0.8800 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 5               | 1      | 14     | 3               | 2      | 0      | 0              | 16     | 2      | 7                   | 26     | 1      |
| Total Analysis Volume [veh/h]           | 20              | 4      | 54     | 11              | 8      | 1      | 1              | 63     | 7      | 27                  | 106    | 3      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.03  | 0.01  | 0.05 | 0.02  | 0.01  | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 10.52 | 10.88 | 9.01 | 10.76 | 10.67 | 8.97 | 7.43 | 0.00 | 0.00 | 7.39 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.29  | 0.29  | 0.29 | 0.09  | 0.09  | 0.09 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 7.28  | 7.28  | 7.28 | 2.34  | 2.34  | 2.34 | 0.05 | 0.00 | 0.00 | 1.35 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 9.49  |       |      | 10.63 |       |      | 0.10 |      |      | 1.47 |      |      |
| Approach LOS                          | A     |       |      | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 3.80  |       |      |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 10.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.002 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | ↔                   |        |        | ↔                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 5                       | 1      | 20     | 20                      | 0      | 3      | 2                   | 86     | 2      | 6                   | 101    | 7      |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.1255                  | 1.1255 | 1.1255 | 1.1255                  | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 6                       | 1      | 23     | 23                      | 0      | 3      | 2                   | 97     | 2      | 7                   | 114    | 8      |
| Peak Hour Factor                        | 0.8500                  | 0.8500 | 0.8500 | 0.8500                  | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 2                       | 0      | 7      | 7                       | 0      | 1      | 1                   | 29     | 1      | 2                   | 34     | 2      |
| Total Analysis Volume [veh/h]           | 7                       | 1      | 27     | 27                      | 0      | 4      | 2                   | 114    | 2      | 8                   | 134    | 9      |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.01  | 0.00  | 0.03 | 0.04  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 10.55 | 10.93 | 9.02 | 10.88 | 10.99 | 9.22 | 7.50 | 0.00 | 0.00 | 7.46 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.13  | 0.13  | 0.13 | 0.15  | 0.15  | 0.15 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 3.19  | 3.19  | 3.19 | 3.65  | 3.65  | 3.65 | 0.10 | 0.00 | 0.00 | 0.41 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 9.38  |       |      | 10.66 |       |      | 0.13 |      |      | 0.40 |      |      |
| Approach LOS                          | A     |       |      | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 2.19  |       |      |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 5.7   |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | A     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.107 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 26                | 16     | 18                  | 109    | 96                  | 8      |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 1.1255            | 1.1255 | 1.1255              | 1.1255 | 1.1255              | 1.1255 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 29                | 18     | 20                  | 123    | 108                 | 9      |
| Peak Hour Factor                            | 0.8500            | 0.8500 | 0.8500              | 0.8500 | 0.8500              | 0.8500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 9                 | 5      | 6                   | 36     | 32                  | 3      |
| Total Analysis Volume [veh/h]               | 34                | 21     | 24                  | 145    | 127                 | 11     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 20         | 0          | 0          | 40         | 40         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | R     | L    | C    | C    | R    |
|---|-------|-------|------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60   | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 3     | 3     | 49   | 49   | 49   | 49   |
| g / C, Green / Cycle                    | 0.05  | 0.05  | 0.82 | 0.82 | 0.82 | 0.82 |
| (v / s)_i Volume / Saturation Flow Rate | 0.02  | 0.01  | 0.02 | 0.09 | 0.08 | 0.01 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 1137 | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 83    | 74    | 985  | 1371 | 1371 | 1166 |
| d1, Uniform Delay [s]                   | 27.57 | 27.39 | 1.75 | 1.13 | 1.11 | 1.04 |
| k, delay calibration                    | 0.11  | 0.11  | 0.50 | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 3.20  | 2.06  | 0.05 | 0.16 | 0.13 | 0.01 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |      |      |      |      |
|---------------------------------------|-------|-------|------|------|------|------|
| X, volume / capacity                  | 0.41  | 0.28  | 0.02 | 0.11 | 0.09 | 0.01 |
| d, Delay for Lane Group [s/veh]       | 30.77 | 29.44 | 1.80 | 1.28 | 1.25 | 1.05 |
| Lane Group LOS                        | C     | C     | A    | A    | A    | A    |
| Critical Lane Group                   | Yes   | No    | No   | Yes  | No   | No   |
| 50th-Percentile Queue Length [veh/ln] | 0.52  | 0.31  | 0.03 | 0.06 | 0.05 | 0.00 |
| 50th-Percentile Queue Length [ft/ln]  | 12.89 | 7.83  | 0.87 | 1.48 | 1.28 | 0.12 |
| 95th-Percentile Queue Length [veh/ln] | 0.93  | 0.56  | 0.06 | 0.11 | 0.09 | 0.01 |
| 95th-Percentile Queue Length [ft/ln]  | 23.19 | 14.10 | 1.56 | 2.66 | 2.30 | 0.21 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |      |      |      |
|---------------------------------|-------|-------|------|------|------|------|
| d_M, Delay for Movement [s/veh] | 30.77 | 29.44 | 1.80 | 1.28 | 1.25 | 1.05 |
| Movement LOS                    | C     | C     | A    | A    | A    | A    |
| d_A, Approach Delay [s/veh]     | 30.26 |       | 1.35 |      | 1.23 |      |
| Approach LOS                    | C     |       | A    |      | A    |      |
| d_I, Intersection Delay [s/veh] | 5.70  |       |      |      |      |      |
| Intersection LOS                | A     |       |      |      |      |      |
| Intersection V/C                | 0.107 |       |      |      |      |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 1.989 | 2.041 | 2.041 |
| Crosswalk LOS  | A     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 533   | 1200  | 1200  |
| d_b, Bicycle Delay [s]                                   | 16.14 | 4.81  | 4.81  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 1.838 | 1.787 |
| Bicycle LOS  | A     | A     | A     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 19.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.230 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|------------------------------|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound  |        |        | Eastbound           |        |        | Westbound       |        |        |
| Lane Configuration           | ⇐⇐⇐             |        |        | ⇐⇐⇐         |        |        | ⇐⇐⇐                 |        |        | ⇐⇐⇐             |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left        | Thru   | Right  | Left                | Thru   | Right  | Left            | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00       | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1           | 0      | 1      | 2                   | 0      | 1      | 1               | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00          | 100.00 | 250.00 | 280.00      | 100.00 | 190.00 | 350.00              | 100.00 | 300.00 | 265.00          | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00        | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00       |        |        | 35.00               |        |        | 30.00           |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00        |        |        | 0.00                |        |        | 0.00            |        |        |
| Curb Present                 | Yes             |        |        | Yes         |        |        | Yes                 |        |        | Yes             |        |        |
| Crosswalk                    | No              |        |        | No          |        |        | Yes                 |        |        | Yes             |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Base Volume Input [veh/h]                   | 56              | 186    | 8      | 24          | 295    | 19     | 26                  | 32     | 78     | 20              | 29     | 42     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   |
| Growth Factor                               | 1.1255          | 1.1255 | 1.1255 | 1.1255      | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 63              | 209    | 9      | 27          | 332    | 21     | 29                  | 36     | 88     | 23              | 33     | 47     |
| Peak Hour Factor                            | 0.8700          | 0.8700 | 0.8700 | 0.8500      | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 | 0.8800          | 0.8800 | 0.8800 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 18              | 60     | 3      | 8           | 98     | 6      | 9                   | 11     | 26     | 7               | 9      | 13     |
| Total Analysis Volume [veh/h]               | 72              | 240    | 10     | 32          | 391    | 25     | 34                  | 42     | 104    | 26              | 38     | 53     |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No              |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 16      | 36      | 0       | 10      | 30      | 0       | 51       | 14      | 0       | 10      | 14      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C    | R    | L    | C    | R    |
|---|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60    | 60    | 60    | 60    | 60   | 60   | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 0.00  | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 2.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 6     | 11    | 11    | 18    | 10    | 10    | 0     | 34   | 34   | 34   | 34   | 34   |
| g / C, Green / Cycle                    | 0.09  | 0.19  | 0.19  | 0.29  | 0.17  | 0.17  | 0.00  | 0.57 | 0.57 | 0.57 | 0.57 | 0.57 |
| (v / s)_i Volume / Saturation Flow Rate | 0.05  | 0.07  | 0.01  | 0.03  | 0.12  | 0.02  | 0.03  | 0.02 | 0.07 | 0.02 | 0.01 | 0.04 |
| s, saturation flow rate [veh/h]         | 1423  | 3204  | 1431  | 1163  | 3204  | 1431  | 1342  | 1683 | 1431 | 1228 | 3204 | 1431 |
| c, Capacity [veh/h]                     | 285   | 613   | 274   | 453   | 537   | 240   | 120   | 963  | 819  | 763  | 1834 | 819  |
| d1, Uniform Delay [s]                   | 15.69 | 21.26 | 19.81 | 15.39 | 23.73 | 21.21 | 30.08 | 5.64 | 5.93 | 6.96 | 5.56 | 5.71 |
| k, delay calibration                    | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.50  | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.46  | 0.41  | 0.05  | 0.07  | 1.90  | 0.19  | 5.86  | 0.09 | 0.32 | 0.08 | 0.02 | 0.15 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, 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 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |        |       |       |      |       |      |      |       |
|---------------------------------------|-------|-------|-------|-------|--------|-------|-------|------|-------|------|------|-------|
| X, volume / capacity                  | 0.25  | 0.39  | 0.04  | 0.07  | 0.73   | 0.10  | 0.28  | 0.04 | 0.13  | 0.03 | 0.02 | 0.06  |
| d, Delay for Lane Group [s/veh]       | 16.15 | 21.67 | 19.86 | 15.46 | 25.64  | 21.40 | 35.94 | 5.72 | 6.25  | 7.04 | 5.58 | 5.86  |
| Lane Group LOS                        | B     | C     | B     | B     | C      | C     | D     | A    | A     | A    | A    | A     |
| Critical Lane Group                   | Yes   | No    | No    | No    | Yes    | No    | No    | No   | Yes   | No   | No   | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.69  | 1.38  | 0.11  | 0.29  | 2.54   | 0.29  | 0.33  | 0.20 | 0.52  | 0.15 | 0.09 | 0.27  |
| 50th-Percentile Queue Length [ft/ln]  | 17.29 | 34.57 | 2.72  | 7.30  | 63.61  | 7.18  | 8.36  | 4.88 | 13.04 | 3.79 | 2.16 | 6.68  |
| 95th-Percentile Queue Length [veh/ln] | 1.24  | 2.49  | 0.20  | 0.53  | 4.58   | 0.52  | 0.60  | 0.35 | 0.94  | 0.27 | 0.16 | 0.48  |
| 95th-Percentile Queue Length [ft/ln]  | 31.12 | 62.23 | 4.89  | 13.14 | 114.51 | 12.92 | 15.04 | 8.78 | 23.47 | 6.81 | 3.90 | 12.03 |

**Movement, Approach, & Intersection Results**

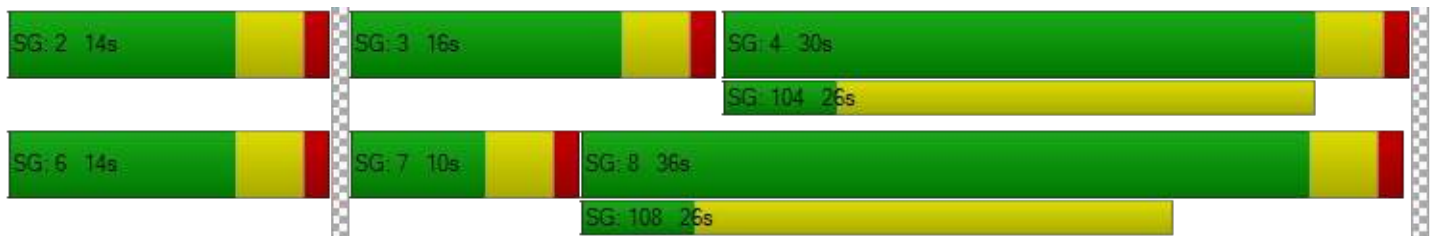
|                                 |       |       |       |       |       |       |       |      |      |      |      |      |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| d_M, Delay for Movement [s/veh] | 16.15 | 21.67 | 19.86 | 15.46 | 25.64 | 21.40 | 35.94 | 5.72 | 6.25 | 7.04 | 5.58 | 5.86 |
| Movement LOS                    | B     | C     | B     | B     | C     | C     | D     | A    | A    | A    | A    | A    |
| d_A, Approach Delay [s/veh]     | 20.38 |       |       | 24.67 |       |       | 11.74 |      |      | 6.03 |      |      |
| Approach LOS                    | C     |       |       | C     |       |       | B     |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh] | 19.15 |       |       |       |       |       |       |      |      |      |      |      |
| Intersection LOS                | B     |       |       |       |       |       |       |      |      |      |      |      |
| Intersection V/C                | 0.230 |       |       |       |       |       |       |      |      |      |      |      |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 21.72 |  |  | 21.72 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.496 |  |  | 2.330 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 1065  |  |  | 865   |  |  | 333   |  |  | 333   |  |  |
| d_b, Bicycle Delay [s]                                   | 6.56  |  |  | 9.67  |  |  | 20.87 |  |  | 20.87 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.825 |  |  | 1.929 |  |  | 1.857 |  |  | 1.656 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | A     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 35.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.696 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24     |        |        | US 24     |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound |        |        | Westbound |        |        |
| Lane Configuration           |                 |        |        |                 |        |        |           |        |        |           |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left      | Thru   | Right  | Left      | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1               | 0      | 1      | 1         | 0      | 1      | 1         | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00          | 100.00 | 343.00 | 200.00          | 100.00 | 220.00 | 350.00    | 100.00 | 350.00 | 390.00    | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0         | 0      | 0      | 0         | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00           |        |        | 55.00     |        |        | 55.00     |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00      |        |        | 0.00      |        |        |
| Curb Present                 | Yes             |        |        | Yes             |        |        | Yes       |        |        | Yes       |        |        |
| Crosswalk                    | No              |        |        | Yes             |        |        | No        |        |        | Yes       |        |        |



**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 5               | 214    | 52     | 19              | 123    | 306    | 74     | 382    | 0      | 66     | 744    | 1      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 1.1255          | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 6               | 241    | 59     | 21              | 138    | 344    | 83     | 430    | 0      | 74     | 837    | 1      |
| Peak Hour Factor                            | 0.8500          | 0.8500 | 0.8500 | 0.9300          | 0.9300 | 0.9300 | 0.8500 | 0.8500 | 0.8500 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 2               | 71     | 17     | 6               | 37     | 92     | 24     | 126    | 0      | 21     | 241    | 0      |
| Total Analysis Volume [veh/h]               | 7               | 284    | 69     | 23              | 148    | 370    | 98     | 506    | 0      | 85     | 962    | 1      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 120                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 19      | 26      | 0       | 9       | 16      | 0       | 9       | 69      | 0       | 16      | 76      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R    | L    | C     | R     |
|---|-------|-------|-------|-------|-------|-------|------|------|-------|-------|
| C, Cycle Length [s]                     | 120   | 120   | 120   | 120   | 120   | 120   | 120  | 120  | 120   | 120   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00 | 0.00 | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 33    | 27    | 33    | 28    | 79    | 70    | 70   | 79   | 70    | 70    |
| g / C, Green / Cycle                    | 0.28  | 0.22  | 0.28  | 0.23  | 0.66  | 0.58  | 0.58 | 0.66 | 0.58  | 0.58  |
| (v / s)_i Volume / Saturation Flow Rate | 0.01  | 0.09  | 0.02  | 0.05  | 0.16  | 0.30  | 0.00 | 0.10 | 0.57  | 0.00  |
| s, saturation flow rate [veh/h]         | 1160  | 3204  | 1072  | 3204  | 619   | 1683  | 1431 | 872  | 1683  | 1431  |
| c, Capacity [veh/h]                     | 376   | 708   | 318   | 752   | 196   | 983   | 836  | 503  | 981   | 834   |
| d1, Uniform Delay [s]                   | 31.58 | 39.94 | 32.12 | 36.84 | 28.73 | 14.84 | 0.00 | 9.99 | 24.34 | 10.43 |
| k, delay calibration                    | 0.11  | 0.50  | 0.50  | 0.50  | 0.18  | 0.11  | 0.11 | 0.11 | 0.44  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.02  | 1.69  | 0.44  | 0.59  | 3.28  | 0.42  | 0.00 | 0.16 | 22.64 | 0.00  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |       |        |      |       |        |       |
|---------------------------------------|-------|--------|-------|-------|-------|--------|------|-------|--------|-------|
| X, volume / capacity                  | 0.02  | 0.40   | 0.07  | 0.20  | 0.50  | 0.51   | 0.00 | 0.17  | 0.98   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 31.60 | 41.63  | 32.56 | 37.43 | 32.01 | 15.26  | 0.00 | 10.14 | 46.98  | 10.44 |
| Lane Group LOS                        | C     | D      | C     | D     | C     | B      | A    | B     | D      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No    | Yes   | No     | No   | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.15  | 3.73   | 0.53  | 1.80  | 0.95  | 7.24   | 0.00 | 0.69  | 28.34  | 0.01  |
| 50th-Percentile Queue Length [ft/ln]  | 3.74  | 93.18  | 13.22 | 44.98 | 23.85 | 180.89 | 0.00 | 17.21 | 708.53 | 0.25  |
| 95th-Percentile Queue Length [veh/ln] | 0.27  | 6.71   | 0.95  | 3.24  | 1.72  | 11.65  | 0.00 | 1.24  | 37.07  | 0.02  |
| 95th-Percentile Queue Length [ft/ln]  | 6.74  | 167.73 | 23.80 | 80.96 | 42.92 | 291.18 | 0.00 | 30.97 | 926.80 | 0.45  |

**Movement, Approach, & Intersection Results**

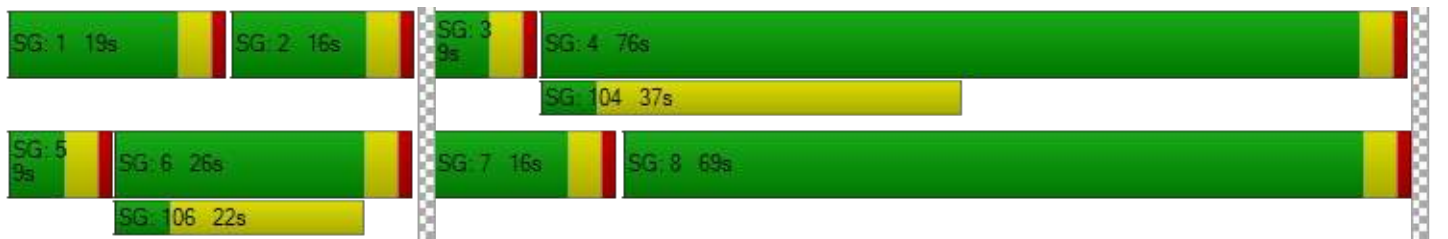
|                                 |       |       |      |       |       |      |       |       |      |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 31.60 | 41.63 | 0.00 | 32.56 | 37.43 | 0.00 | 32.01 | 15.26 | 0.00 | 10.14 | 46.98 | 10.44 |
| Movement LOS                    | C     | D     |      | C     | D     |      | C     | B     | A    | B     | D     | B     |
| d_A, Approach Delay [s/veh]     | 41.39 |       |      | 36.77 |       |      | 17.98 |       |      | 43.96 |       |       |
| Approach LOS                    | D     |       |      | D     |       |      | B     |       |      | D     |       |       |
| d_I, Intersection Delay [s/veh] | 35.60 |       |      |       |       |      |       |       |      |       |       |       |
| Intersection LOS                | D     |       |      |       |       |      |       |       |      |       |       |       |
| Intersection V/C                | 0.696 |       |      |       |       |      |       |       |      |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 9.0   |  |  | 0.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 51.34 |  |  | 0.00  |  |  | 51.34 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 2.657 |  |  | 0.000 |  |  | 2.887 |  |  |
| Crosswalk LOS  | F     |  |  | B     |  |  | F     |  |  | C     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 367   |  |  | 200   |  |  | 1083  |  |  | 1200  |  |  |
| d_b, Bicycle Delay [s]                                   | 40.02 |  |  | 48.60 |  |  | 12.60 |  |  | 9.60  |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.800 |  |  | 1.701 |  |  | 2.556 |  |  | 3.289 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | B     |  |  | C     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 25.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.620 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           |                |        |        |                |        |        |            |        |        |            |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 150.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Input [veh/h]                   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 1.1255         | 1.1255 | 1.1255 | 1.1255         | 1.1255 | 1.1255 | 1.1255     | 1.1255 | 1.1255 | 1.1255     | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 93             | 44     | 15     | 72             | 11     | 116    | 101        | 1638   | 119    | 14         | 1193   | 47     |
| Peak Hour Factor                            | 0.8500         | 0.8500 | 0.8500 | 0.8500         | 0.8500 | 0.8500 | 0.9800     | 0.9800 | 0.9800 | 0.9300     | 0.9300 | 0.9300 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 27             | 13     | 4      | 21             | 3      | 34     | 26         | 418    | 30     | 4          | 321    | 13     |
| Total Analysis Volume [veh/h]               | 109            | 52     | 18     | 85             | 13     | 136    | 103        | 1671   | 121    | 15         | 1283   | 51     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 140                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 0       | 8       | 0       | 0       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 0       | 87      | 0       | 0       | 87      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0       | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 50    | 50    | 50    | 50    | 50    | 82    | 82    | 82    | 82    | 82    | 82    |
| g / C, Green / Cycle                    | 0.36  | 0.36  | 0.36  | 0.36  | 0.36  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  |
| (v / s)_i Volume / Saturation Flow Rate | 0.10  | 0.03  | 0.01  | 0.07  | 0.10  | 0.27  | 0.52  | 0.08  | 0.06  | 0.40  | 0.04  |
| s, saturation flow rate [veh/h]         | 1114  | 1683  | 1431  | 1217  | 1507  | 388   | 3204  | 1431  | 267   | 3204  | 1431  |
| c, Capacity [veh/h]                     | 353   | 599   | 509   | 441   | 536   | 167   | 1881  | 840   | 85    | 1881  | 840   |
| d1, Uniform Delay [s]                   | 41.31 | 29.98 | 29.42 | 34.76 | 32.24 | 47.00 | 24.93 | 13.03 | 56.90 | 19.90 | 12.37 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 2.27  | 0.29  | 0.13  | 0.97  | 1.29  | 3.68  | 1.59  | 0.08  | 0.99  | 0.44  | 0.03  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |       |       |        |        |        |        |       |       |        |       |
|---------------------------------------|--------|-------|-------|--------|--------|--------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.31   | 0.09  | 0.04  | 0.19   | 0.28   | 0.62   | 0.89   | 0.14  | 0.18  | 0.68   | 0.06  |
| d, Delay for Lane Group [s/veh]       | 43.58  | 30.26 | 29.55 | 35.73  | 33.53  | 50.68  | 26.52  | 13.11 | 57.89 | 20.34  | 12.40 |
| Lane Group LOS                        | D      | C     | C     | D      | C      | D      | C      | B     | E     | C      | B     |
| Critical Lane Group                   | No     | No    | No    | No     | Yes    | No     | Yes    | No    | No    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 3.27   | 1.22  | 0.42  | 2.27   | 3.85   | 3.44   | 21.46  | 1.61  | 0.50  | 13.01  | 0.64  |
| 50th-Percentile Queue Length [ft/ln]  | 81.81  | 30.60 | 10.45 | 56.72  | 96.35  | 85.99  | 536.49 | 40.28 | 12.52 | 325.25 | 16.11 |
| 95th-Percentile Queue Length [veh/ln] | 5.89   | 2.20  | 0.75  | 4.08   | 6.94   | 6.19   | 29.06  | 2.90  | 0.90  | 18.93  | 1.16  |
| 95th-Percentile Queue Length [ft/ln]  | 147.26 | 55.08 | 18.81 | 102.10 | 173.44 | 154.77 | 726.42 | 72.51 | 22.54 | 473.14 | 29.00 |



**Movement, Approach, & Intersection Results**

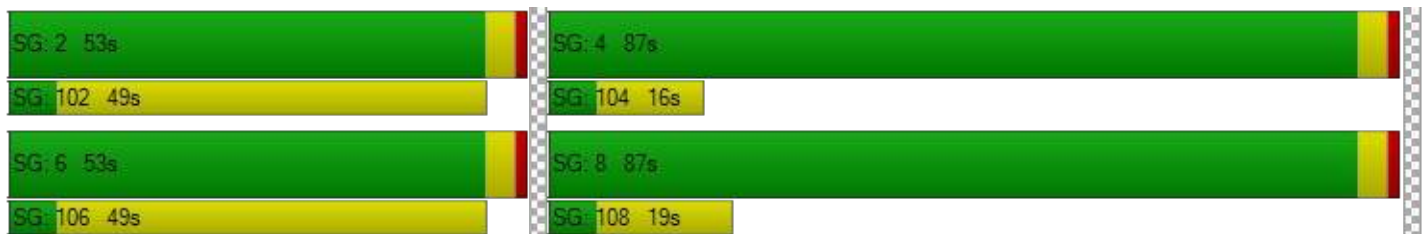
|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 43.58 | 30.26 | 29.55 | 35.73 | 33.53 | 33.53 | 50.68 | 26.52 | 13.11 | 57.89 | 20.34 | 12.40 |
| Movement LOS                    | D     | C     | C     | D     | C     | C     | D     | C     | B     | E     | C     | B     |
| d_A, Approach Delay [s/veh]     | 38.30 |       |       | 34.33 |       |       | 26.98 |       |       | 20.46 |       |       |
| Approach LOS                    | D     |       |       | C     |       |       | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 25.60 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.620 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 61.28 | 61.28 | 61.28 | 61.28 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.268 | 2.252 | 3.645 | 3.535 |
| Crosswalk LOS  | B     | B     | D     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 700   | 700   | 1186  | 1186  |
| d_b, Bicycle Delay [s]                                   | 29.57 | 29.57 | 11.60 | 11.60 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.855 | 1.946 | 3.123 | 2.673 |
| Bicycle LOS  | A     | A     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 11.8  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.016 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 8               | 7      | 24     | 9               | 4      | 2      | 0              | 72     | 13     | 34                  | 108    | 6      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.1255          | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 | 1.1255         | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 9               | 8      | 27     | 10              | 5      | 2      | 0              | 81     | 15     | 38                  | 122    | 7      |
| Peak Hour Factor                        | 0.8500          | 0.8500 | 0.8500 | 0.8500          | 0.8500 | 0.8500 | 0.8500         | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 3               | 2      | 8      | 3               | 1      | 1      | 0              | 24     | 4      | 11                  | 36     | 2      |
| Total Analysis Volume [veh/h]           | 11              | 9      | 32     | 12              | 6      | 2      | 0              | 95     | 18     | 45                  | 144    | 8      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.02  | 0.02  | 0.03 | 0.02  | 0.01  | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 11.47 | 11.78 | 9.13 | 11.73 | 11.70 | 9.23 | 7.52 | 0.00 | 0.00 | 7.51 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.22  | 0.22  | 0.22 | 0.11  | 0.11  | 0.11 | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 5.50  | 5.50  | 5.50 | 2.69  | 2.69  | 2.69 | 0.00 | 0.00 | 0.00 | 2.36 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 10.09 |       |      | 11.47 |       |      | 0.00 |      |      | 1.72 |      |      |
| Approach LOS                          | B     |       |      | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 2.86  |       |      |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 11.7  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.029 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | ⊕                       |        |        | ⊕                       |        |        | ↔                   |        |        | ↔                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 4                       | 0      | 16     | 12                      | 0      | 2      | 2                   | 83     | 3      | 13                  | 161    | 25     |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.1255                  | 1.1255 | 1.1255 | 1.1255                  | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 5                       | 0      | 18     | 14                      | 0      | 2      | 2                   | 93     | 3      | 15                  | 181    | 28     |
| Peak Hour Factor                        | 0.8800                  | 0.8800 | 0.8800 | 0.8500                  | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 1                       | 0      | 5      | 4                       | 0      | 1      | 1                   | 27     | 1      | 4                   | 53     | 8      |
| Total Analysis Volume [veh/h]           | 6                       | 0      | 20     | 16                      | 0      | 2      | 2                   | 109    | 4      | 18                  | 213    | 33     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.01  | 0.00  | 0.02 | 0.03  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 11.47 | 11.90 | 8.96 | 11.74 | 11.83 | 9.65 | 7.73 | 0.00 | 0.00 | 7.47 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.10  | 0.10  | 0.10 | 0.10  | 0.10  | 0.10 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 2.46  | 2.46  | 2.46 | 2.44  | 2.44  | 2.44 | 0.11 | 0.00 | 0.00 | 0.93 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 9.54  |       |      | 11.51 |       |      | 0.13 |      |      | 0.51 |      |      |
| Approach LOS                          | A     |       |      | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 1.43  |       |      |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 8.9   |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | A     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.180 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 63                | 35     | 21                  | 91     | 162                 | 27     |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 1.1255            | 1.1255 | 1.1255              | 1.1255 | 1.1255              | 1.1255 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 71                | 39     | 24                  | 102    | 182                 | 30     |
| Peak Hour Factor                            | 0.8500            | 0.8500 | 0.8500              | 0.8500 | 0.8500              | 0.8500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 21                | 11     | 7                   | 30     | 54                  | 9      |
| Total Analysis Volume [veh/h]               | 84                | 46     | 28                  | 120    | 214                 | 35     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 41         | 0          | 0          | 19         | 19         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | R     | L    | C    | C    | R    |
|---|-------|-------|------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60   | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 5     | 5     | 47   | 47   | 47   | 47   |
| g / C, Green / Cycle                    | 0.08  | 0.08  | 0.79 | 0.79 | 0.79 | 0.79 |
| (v / s)_i Volume / Saturation Flow Rate | 0.05  | 0.03  | 0.03 | 0.07 | 0.13 | 0.02 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 1050 | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 131   | 117   | 863  | 1322 | 1322 | 1123 |
| d1, Uniform Delay [s]                   | 26.73 | 26.17 | 2.64 | 1.49 | 1.59 | 1.42 |
| k, delay calibration                    | 0.11  | 0.11  | 0.50 | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 5.18  | 2.15  | 0.07 | 0.14 | 0.26 | 0.05 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |      |      |      |      |
|---------------------------------------|-------|-------|------|------|------|------|
| X, volume / capacity                  | 0.64  | 0.39  | 0.03 | 0.09 | 0.16 | 0.03 |
| d, Delay for Lane Group [s/veh]       | 31.91 | 28.32 | 2.70 | 1.63 | 1.85 | 1.47 |
| Lane Group LOS                        | C     | C     | A    | A    | A    | A    |
| Critical Lane Group                   | Yes   | No    | No   | No   | Yes  | No   |
| 50th-Percentile Queue Length [veh/ln] | 1.27  | 0.65  | 0.07 | 0.11 | 0.21 | 0.03 |
| 50th-Percentile Queue Length [ft/ln]  | 31.80 | 16.27 | 1.67 | 2.70 | 5.16 | 0.80 |
| 95th-Percentile Queue Length [veh/ln] | 2.29  | 1.17  | 0.12 | 0.19 | 0.37 | 0.06 |
| 95th-Percentile Queue Length [ft/ln]  | 57.24 | 29.29 | 3.01 | 4.85 | 9.29 | 1.45 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |      |      |      |
|---------------------------------|-------|-------|------|------|------|------|
| d_M, Delay for Movement [s/veh] | 31.91 | 28.32 | 2.70 | 1.63 | 1.85 | 1.47 |
| Movement LOS                    | C     | C     | A    | A    | A    | A    |
| d_A, Approach Delay [s/veh]     | 30.64 |       | 1.83 |      | 1.80 |      |
| Approach LOS                    | C     |       | A    |      | A    |      |
| d_I, Intersection Delay [s/veh] | 8.92  |       |      |      |      |      |
| Intersection LOS                | A     |       |      |      |      |      |
| Intersection V/C                | 0.180 |       |      |      |      |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.69 | 21.69 | 21.69 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.034 | 2.076 | 2.093 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 1233  | 500   | 500   |
| d_b, Bicycle Delay [s]                                   | 4.42  | 16.89 | 16.89 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 1.804 | 1.970 |
| Bicycle LOS  | A     | A     | A     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 22.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.301 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | Meridian Rd   |        |        | Rolling Thunder Way   |        |        | Rolling Thunder Way   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 1      | 2   | 0      | 1      | 1   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00  | 100.00 | 250.00 | 280.00  | 100.00 | 190.00 | 350.00  | 100.00 | 300.00 | 265.00  | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 35.00   |        |        | 30.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | No  |        |        | No  |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]                   | 80              | 386    | 33     | 72          | 187    | 47     | 43                  | 32     | 69     | 22                  | 47     | 98     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                               | 1.1255          | 1.1255 | 1.1255 | 1.1255      | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 90              | 434    | 37     | 81          | 210    | 53     | 48                  | 36     | 78     | 25                  | 53     | 110    |
| Peak Hour Factor                            | 0.8800          | 0.8800 | 0.8800 | 0.8500      | 0.8500 | 0.8500 | 0.9000              | 0.9000 | 0.9000 | 0.9100              | 0.9100 | 0.9100 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 26              | 123    | 11     | 24          | 62     | 16     | 13                  | 10     | 22     | 7                   | 15     | 30     |
| Total Analysis Volume [veh/h]               | 102             | 493    | 42     | 95          | 247    | 62     | 53                  | 40     | 87     | 27                  | 58     | 121    |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No                  |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 70                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 11      | 32      | 0       | 15       | 20      | 0       | 9       | 14      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C    | R     | L    | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|------|-------|------|-------|-------|
| C, Cycle Length [s]                     | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70   | 70    | 70   | 70    | 70    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00  | 4.00 | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 2.00  | 2.00 | 2.00  | 0.00 | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 22    | 14    | 14    | 22    | 13    | 13    | 3     | 34   | 34    | 40   | 33    | 33    |
| g / C, Green / Cycle                    | 0.31  | 0.20  | 0.20  | 0.31  | 0.19  | 0.19  | 0.05  | 0.48 | 0.48  | 0.57 | 0.47  | 0.47  |
| (v / s)_i Volume / Saturation Flow Rate | 0.09  | 0.15  | 0.03  | 0.09  | 0.08  | 0.04  | 0.02  | 0.02 | 0.06  | 0.02 | 0.02  | 0.08  |
| s, saturation flow rate [veh/h]         | 1195  | 3204  | 1431  | 1041  | 3204  | 1431  | 3113  | 1683 | 1431  | 1269 | 3204  | 1431  |
| c, Capacity [veh/h]                     | 461   | 629   | 281   | 360   | 616   | 275   | 149   | 811  | 690   | 850  | 1491  | 666   |
| d1, Uniform Delay [s]                   | 17.72 | 26.82 | 23.38 | 18.30 | 24.83 | 23.95 | 32.40 | 9.65 | 10.03 | 6.61 | 10.23 | 10.97 |
| k, delay calibration                    | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.50 | 0.50  | 0.11 | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.24  | 2.20  | 0.24  | 0.39  | 0.42  | 0.41  | 1.43  | 0.12 | 0.38  | 0.01 | 0.05  | 0.60  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |       |       |       |       |       |      |       |       |
|---------------------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| X, volume / capacity                  | 0.22  | 0.78   | 0.15  | 0.26  | 0.40  | 0.23  | 0.36  | 0.05  | 0.13  | 0.03 | 0.04  | 0.18  |
| d, Delay for Lane Group [s/veh]       | 17.96 | 29.02  | 23.63 | 18.69 | 25.25 | 24.36 | 33.83 | 9.77  | 10.41 | 6.63 | 10.27 | 11.57 |
| Lane Group LOS                        | B     | C      | C     | B     | C     | C     | C     | A     | B     | A    | B     | B     |
| Critical Lane Group                   | No    | Yes    | No    | Yes   | No    | No    | Yes   | No    | No    | No   | No    | Yes   |
| 50th-Percentile Queue Length [veh/ln] | 1.15  | 3.85   | 0.56  | 1.07  | 1.73  | 0.85  | 0.45  | 0.31  | 0.71  | 0.15 | 0.23  | 1.10  |
| 50th-Percentile Queue Length [ft/ln]  | 28.68 | 96.29  | 14.07 | 26.84 | 43.19 | 21.26 | 11.16 | 7.75  | 17.86 | 3.84 | 5.78  | 27.51 |
| 95th-Percentile Queue Length [veh/ln] | 2.06  | 6.93   | 1.01  | 1.93  | 3.11  | 1.53  | 0.80  | 0.56  | 1.29  | 0.28 | 0.42  | 1.98  |
| 95th-Percentile Queue Length [ft/ln]  | 51.62 | 173.33 | 25.32 | 48.31 | 77.74 | 38.28 | 20.08 | 13.95 | 32.15 | 6.91 | 10.40 | 49.52 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |      |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 17.96 | 29.02 | 23.63 | 18.69 | 25.25 | 24.36 | 33.83 | 9.77 | 10.41 | 6.63  | 10.27 | 11.57 |
| Movement LOS                    | B     | C     | C     | B     | C     | C     | C     | A    | B     | A     | B     | B     |
| d_A, Approach Delay [s/veh]     | 26.89 |       |       | 23.57 |       |       | 17.16 |      |       | 10.56 |       |       |
| Approach LOS                    | C     |       |       | C     |       |       | B     |      |       | B     |       |       |
| d_I, Intersection Delay [s/veh] | 22.37 |       |       |       |       |       |       |      |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |      |       |       |       |       |
| Intersection V/C                | 0.301 |       |       |       |       |       |       |      |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   | 0.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 0.00  | 0.00  | 26.64 | 26.64 |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 | 0.000 | 2.550 | 2.394 |
| Crosswalk LOS  | F     | F     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 741   | 799   | 456   | 285   |
| d_b, Bicycle Delay [s]                                   | 13.88 | 12.65 | 20.89 | 25.78 |
| I_b,int, Bicycle LOS Score for Intersection              | 2.085 | 1.893 | 1.857 | 1.730 |
| Bicycle LOS  | B     | A     | A     | A     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 39.3  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.773 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24     |        |        | US 24     |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound |        |        | Westbound |        |        |
| Lane Configuration           |                 |        |        |                 |        |        |           |        |        |           |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left      | Thru   | Right  | Left      | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1               | 0      | 1      | 1         | 0      | 1      | 1         | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00          | 100.00 | 343.00 | 200.00          | 100.00 | 220.00 | 350.00    | 100.00 | 350.00 | 390.00    | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0         | 0      | 0      | 0         | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00           |        |        | 55.00     |        |        | 55.00     |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00      |        |        | 0.00      |        |        |
| Curb Present                 | Yes             |        |        | Yes             |        |        | Yes       |        |        | Yes       |        |        |
| Crosswalk                    | No              |        |        | Yes             |        |        | No        |        |        | Yes       |        |        |



**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 2               | 339    | 68     | 36              | 259    | 144    | 293    | 768    | 1      | 184    | 496    | 2      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 1.1255          | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 2               | 382    | 77     | 41              | 292    | 162    | 330    | 864    | 1      | 207    | 558    | 2      |
| Peak Hour Factor                            | 0.9800          | 0.9800 | 0.9800 | 0.8500          | 0.8500 | 0.8500 | 0.9000 | 0.9000 | 0.9000 | 0.8800 | 0.8800 | 0.8800 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 1               | 97     | 20     | 12              | 86     | 48     | 92     | 240    | 0      | 59     | 159    | 1      |
| Total Analysis Volume [veh/h]               | 2               | 390    | 79     | 48              | 344    | 191    | 367    | 960    | 1      | 235    | 634    | 2      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 130                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 26      | 0       | 9       | 26      | 0       | 13      | 82      | 0       | 13      | 82      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 31    | 23    | 31    | 27    | 91    | 78    | 78    | 91    | 78    | 78    |
| g / C, Green / Cycle                    | 0.24  | 0.18  | 0.24  | 0.21  | 0.70  | 0.60  | 0.60  | 0.70  | 0.60  | 0.60  |
| (v / s)_i Volume / Saturation Flow Rate | 0.00  | 0.12  | 0.05  | 0.11  | 0.45  | 0.57  | 0.00  | 0.36  | 0.38  | 0.00  |
| s, saturation flow rate [veh/h]         | 983   | 3204  | 1034  | 3204  | 821   | 1683  | 1431  | 657   | 1683  | 1431  |
| c, Capacity [veh/h]                     | 230   | 566   | 229   | 660   | 477   | 1008  | 857   | 255   | 1008  | 857   |
| d1, Uniform Delay [s]                   | 38.21 | 50.17 | 39.61 | 45.92 | 16.98 | 24.32 | 10.45 | 42.41 | 16.76 | 10.46 |
| k, delay calibration                    | 0.11  | 0.50  | 0.50  | 0.50  | 0.50  | 0.44  | 0.11  | 0.17  | 0.20  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.01  | 6.72  | 2.07  | 2.93  | 11.37 | 17.39 | 0.00  | 18.67 | 1.18  | 0.00  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |        |        |        |       |        |        |       |
|---------------------------------------|-------|--------|-------|--------|--------|--------|-------|--------|--------|-------|
| X, volume / capacity                  | 0.01  | 0.69   | 0.21  | 0.52   | 0.77   | 0.95   | 0.00  | 0.92   | 0.63   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 38.22 | 56.89  | 41.68 | 48.85  | 28.35  | 41.71  | 10.45 | 61.07  | 17.94  | 10.46 |
| Lane Group LOS                        | D     | E      | D     | D      | C      | D      | B     | E      | B      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No     | No     | Yes    | No    | Yes    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.05  | 6.44   | 1.34  | 5.20   | 4.76   | 28.20  | 0.01  | 3.20   | 10.95  | 0.02  |
| 50th-Percentile Queue Length [ft/ln]  | 1.24  | 161.06 | 33.45 | 129.94 | 118.91 | 705.05 | 0.26  | 80.06  | 273.73 | 0.53  |
| 95th-Percentile Queue Length [veh/ln] | 0.09  | 10.61  | 2.41  | 8.94   | 8.33   | 36.91  | 0.02  | 5.76   | 16.38  | 0.04  |
| 95th-Percentile Queue Length [ft/ln]  | 2.24  | 265.13 | 60.21 | 223.42 | 208.32 | 922.78 | 0.48  | 144.12 | 409.39 | 0.95  |

**Movement, Approach, & Intersection Results**

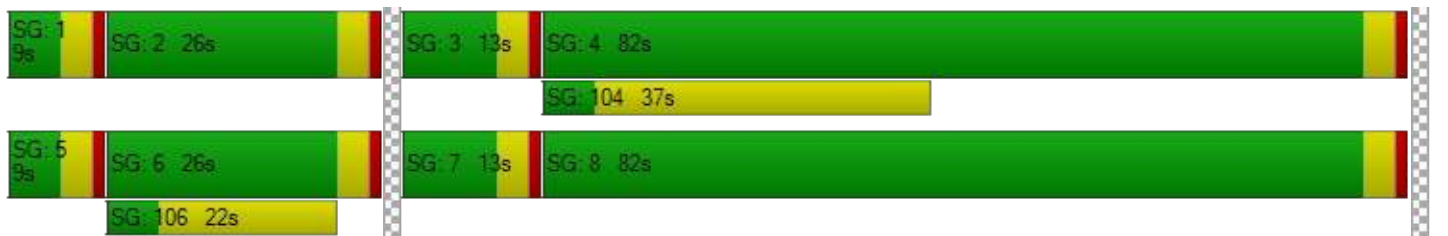
|                                 |       |       |      |       |       |      |       |       |       |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 38.22 | 56.89 | 0.00 | 41.68 | 48.85 | 0.00 | 28.35 | 41.71 | 10.45 | 61.07 | 17.94 | 10.46 |
| Movement LOS                    | D     | E     |      | D     | D     |      | C     | D     | B     | E     | B     | B     |
| d_A, Approach Delay [s/veh]     | 56.79 |       |      | 47.97 |       |      | 38.00 |       |       | 29.56 |       |       |
| Approach LOS                    | E     |       |      | D     |       |      | D     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 39.31 |       |      |       |       |      |       |       |       |       |       |       |
| Intersection LOS                | D     |       |      |       |       |      |       |       |       |       |       |       |
| Intersection V/C                | 0.773 |       |      |       |       |      |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 9.0   |  |  | 0.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 56.31 |  |  | 0.00  |  |  | 56.31 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 3.011 |  |  | 0.000 |  |  | 3.004 |  |  |
| Crosswalk LOS  | F     |  |  | C     |  |  | F     |  |  | C     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 338   |  |  | 338   |  |  | 1200  |  |  | 1200  |  |  |
| d_b, Bicycle Delay [s]                                   | 44.86 |  |  | 44.86 |  |  | 10.40 |  |  | 10.40 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.883 |  |  | 1.883 |  |  | 3.751 |  |  | 2.997 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | D     |  |  | C     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 25.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.705 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           |                |        |        |                |        |        |            |        |        |            |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 150.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   |                |        |        |                |        |        |            |        |        |            |        |        |
| Base Volume Input [veh/h]                   | 127            | 21     | 4      | 37             | 17     | 111    | 42         | 728    | 53     | 13         | 1279   | 21     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 1.1255         | 1.1255 | 1.1255 | 1.1255         | 1.1255 | 1.1255 | 1.1255     | 1.1255 | 1.1255 | 1.1255     | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 43             | 0      | 11     | 0              | 0      | 0      | 0          | 0      | 14     | 4          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 186            | 24     | 16     | 42             | 19     | 125    | 47         | 819    | 74     | 19         | 1440   | 24     |
| Peak Hour Factor                            | 0.8500         | 0.8500 | 0.8500 | 0.8500         | 0.8500 | 0.8500 | 0.8500     | 0.8500 | 0.8500 | 0.8900     | 0.8900 | 0.8900 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 55             | 7      | 5      | 12             | 6      | 37     | 14         | 241    | 22     | 5          | 404    | 7      |
| Total Analysis Volume [veh/h]               | 219            | 28     | 19     | 49             | 22     | 147    | 55         | 964    | 87     | 21         | 1618   | 27     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 140                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 0       | 8       | 0       | 0       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 0       | 87      | 0       | 0       | 87      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0       | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 49    | 49    | 49    | 49    | 49    | 83    | 83    | 83    | 83    | 83    | 83    |
| g / C, Green / Cycle                    | 0.35  | 0.35  | 0.35  | 0.35  | 0.35  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  |
| (v / s)_i Volume / Saturation Flow Rate | 0.20  | 0.02  | 0.01  | 0.04  | 0.11  | 0.20  | 0.30  | 0.06  | 0.04  | 0.50  | 0.02  |
| s, saturation flow rate [veh/h]         | 1094  | 1683  | 1431  | 1244  | 1517  | 281   | 3204  | 1431  | 524   | 3204  | 1431  |
| c, Capacity [veh/h]                     | 334   | 591   | 502   | 459   | 532   | 95    | 1897  | 847   | 260   | 1897  | 847   |
| d1, Uniform Delay [s]                   | 48.17 | 29.99 | 29.89 | 32.91 | 33.19 | 61.46 | 16.67 | 12.41 | 26.46 | 23.54 | 11.88 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 9.67  | 0.15  | 0.14  | 0.47  | 1.56  | 5.50  | 0.21  | 0.05  | 0.13  | 1.17  | 0.02  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |       |       |       |        |       |        |       |       |        |       |
|---------------------------------------|--------|-------|-------|-------|--------|-------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.66   | 0.05  | 0.04  | 0.11  | 0.32   | 0.58  | 0.51   | 0.10  | 0.08  | 0.85   | 0.03  |
| d, Delay for Lane Group [s/veh]       | 57.84  | 30.14 | 30.03 | 33.38 | 34.75  | 66.96 | 16.88  | 12.46 | 26.59 | 24.71  | 11.89 |
| Lane Group LOS                        | E      | C     | C     | C     | C      | E     | B      | B     | C     | C      | B     |
| Critical Lane Group                   | Yes    | No    | No    | No    | No     | No    | No     | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 7.95   | 0.66  | 0.45  | 1.25  | 4.49   | 2.06  | 8.21   | 1.11  | 0.43  | 19.64  | 0.33  |
| 50th-Percentile Queue Length [ft/ln]  | 198.73 | 16.39 | 11.15 | 31.16 | 112.17 | 51.56 | 205.27 | 27.70 | 10.84 | 490.95 | 8.23  |
| 95th-Percentile Queue Length [veh/ln] | 12.57  | 1.18  | 0.80  | 2.24  | 7.96   | 3.71  | 12.91  | 1.99  | 0.78  | 26.91  | 0.59  |
| 95th-Percentile Queue Length [ft/ln]  | 314.32 | 29.50 | 20.08 | 56.10 | 199.02 | 92.82 | 322.75 | 49.87 | 19.51 | 672.64 | 14.81 |



**Movement, Approach, & Intersection Results**

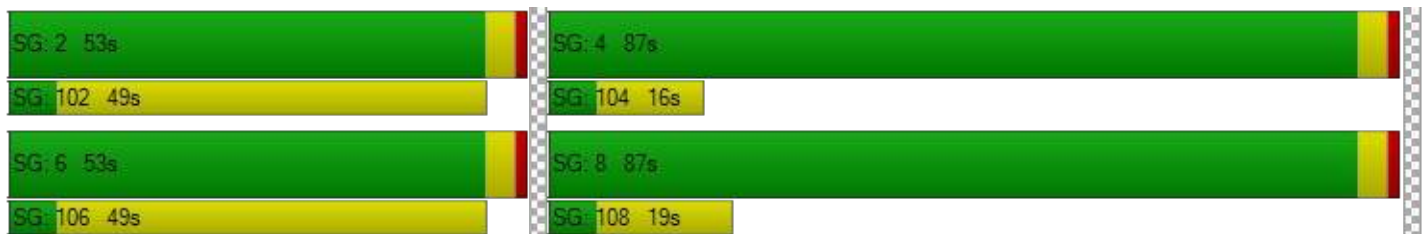
|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 57.84 | 30.14 | 30.03 | 33.38 | 34.75 | 34.75 | 66.96 | 16.88 | 12.46 | 26.59 | 24.71 | 11.89 |
| Movement LOS                    | E     | C     | C     | C     | C     | C     | E     | B     | B     | C     | C     | B     |
| d_A, Approach Delay [s/veh]     | 52.94 |       |       | 34.45 |       |       | 19.02 |       |       | 24.52 |       |       |
| Approach LOS                    | D     |       |       | C     |       |       | B     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 25.64 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.705 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   |  |  | 9.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 61.29 |  |  | 61.29 |  |  | 61.29 |  |  | 61.29 |  |  |
| l_p,int, Pedestrian LOS Score for Intersection           | 2.296 |  |  | 2.147 |  |  | 3.717 |  |  | 3.375 |  |  |
| Crosswalk LOS  | B     |  |  | B     |  |  | D     |  |  | C     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 700   |  |  | 700   |  |  | 1186  |  |  | 1186  |  |  |
| d_b, Bicycle Delay [s]                                   | 29.57 |  |  | 29.57 |  |  | 11.60 |  |  | 11.60 |  |  |
| l_b,int, Bicycle LOS Score for Intersection              | 1.999 |  |  | 1.919 |  |  | 2.472 |  |  | 2.934 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | B     |  |  | C     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 13.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.026 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 15              | 3      | 41     | 8               | 6      | 1      | 1              | 48     | 5      | 21                  | 83     | 3      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.1255          | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 | 1.1255         | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 32              | 0      | 104    | 0               | 0      | 0      | 0              | 7      | 11     | 33                  | 22     | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 49              | 3      | 150    | 9               | 7      | 1      | 1              | 61     | 17     | 57                  | 115    | 3      |
| Peak Hour Factor                        | 0.8500          | 0.8500 | 0.8500 | 0.8500          | 0.8500 | 0.8500 | 0.8600         | 0.8600 | 0.8600 | 0.8800              | 0.8800 | 0.8800 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 14              | 1      | 44     | 3               | 2      | 0      | 0              | 18     | 5      | 16                  | 33     | 1      |
| Total Analysis Volume [veh/h]           | 58              | 4      | 176    | 11              | 8      | 1      | 1              | 71     | 20     | 65                  | 131    | 3      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.10  | 0.01  | 0.18  | 0.03  | 0.01  | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 12.98 | 13.28 | 10.42 | 13.93 | 11.94 | 9.26 | 7.48 | 0.00 | 0.00 | 7.50 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | B     | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 1.19  | 1.19  | 1.19  | 0.13  | 0.13  | 0.13 | 0.00 | 0.00 | 0.00 | 0.14 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 29.78 | 29.78 | 29.78 | 3.28  | 3.28  | 3.28 | 0.05 | 0.00 | 0.00 | 3.39 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 11.09 |       |       | 12.90 |       |      | 0.08 |      |      | 2.45 |      |      |
| Approach LOS                          | B     |       |       | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 6.18  |       |       |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |       |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 14.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.069 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | ⊕                       |        |        | ⊕                       |        |        | ⇌                   |        |        | ⇌                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 5                       | 1      | 20     | 20                      | 0      | 3      | 2                   | 86     | 2      | 6                   | 101    | 7      |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.1255                  | 1.1255 | 1.1255 | 1.1255                  | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 22                      | 0      | 56     | 0                       | 0      | 0      | 0                   | 104    | 7      | 22                  | 33     | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 28                      | 1      | 79     | 23                      | 0      | 3      | 2                   | 201    | 9      | 29                  | 147    | 8      |
| Peak Hour Factor                        | 0.8500                  | 0.8500 | 0.8500 | 0.8500                  | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 8                       | 0      | 23     | 7                       | 0      | 1      | 1                   | 59     | 3      | 9                   | 43     | 2      |
| Total Analysis Volume [veh/h]           | 33                      | 1      | 93     | 27                      | 0      | 4      | 2                   | 236    | 11     | 34                  | 173    | 9      |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.07  | 0.00  | 0.12  | 0.07  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 13.83 | 14.02 | 10.75 | 14.86 | 13.47 | 9.84 | 7.59 | 0.00 | 0.00 | 7.80 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | B     | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.69  | 0.69  | 0.69  | 0.24  | 0.24  | 0.24 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 17.24 | 17.24 | 17.24 | 5.92  | 5.92  | 5.92 | 0.11 | 0.00 | 0.00 | 1.98 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 11.58 |       |       | 14.21 |       |      | 0.06 |      |      | 1.23 |      |      |
| Approach LOS                          | B     |       |       | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 3.52  |       |       |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |       |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 4.8   |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | A     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.199 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 26                | 16     | 18                  | 109    | 96                  | 8      |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 1.1255            | 1.1255 | 1.1255              | 1.1255 | 1.1255              | 1.1255 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 11     | 32                  | 128    | 44                  | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 29                | 29     | 52                  | 251    | 152                 | 9      |
| Peak Hour Factor                            | 0.8500            | 0.8500 | 0.8500              | 0.8500 | 0.8500              | 0.8500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 9                 | 9      | 15                  | 74     | 45                  | 3      |
| Total Analysis Volume [veh/h]               | 34                | 34     | 61                  | 295    | 179                 | 11     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 20         | 0          | 0          | 40         | 40         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | R     | L    | C    | C    | R    |
|---|-------|-------|------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60   | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 3     | 3     | 49   | 49   | 49   | 49   |
| g / C, Green / Cycle                    | 0.06  | 0.06  | 0.81 | 0.81 | 0.81 | 0.81 |
| (v / s)_i Volume / Saturation Flow Rate | 0.02  | 0.02  | 0.06 | 0.18 | 0.11 | 0.01 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 1084 | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 93    | 83    | 929  | 1361 | 1361 | 1156 |
| d1, Uniform Delay [s]                   | 27.19 | 27.26 | 2.05 | 1.34 | 1.23 | 1.11 |
| k, delay calibration                    | 0.11  | 0.11  | 0.50 | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 2.36  | 3.17  | 0.14 | 0.37 | 0.20 | 0.01 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |      |      |      |      |
|---------------------------------------|-------|-------|------|------|------|------|
| X, volume / capacity                  | 0.36  | 0.41  | 0.07 | 0.22 | 0.13 | 0.01 |
| d, Delay for Lane Group [s/veh]       | 29.55 | 30.43 | 2.18 | 1.70 | 1.43 | 1.13 |
| Lane Group LOS                        | C     | C     | A    | A    | A    | A    |
| Critical Lane Group                   | No    | Yes   | No   | Yes  | No   | No   |
| 50th-Percentile Queue Length [veh/ln] | 0.50  | 0.51  | 0.11 | 0.16 | 0.09 | 0.01 |
| 50th-Percentile Queue Length [ft/ln]  | 12.48 | 12.81 | 2.66 | 4.07 | 2.24 | 0.14 |
| 95th-Percentile Queue Length [veh/ln] | 0.90  | 0.92  | 0.19 | 0.29 | 0.16 | 0.01 |
| 95th-Percentile Queue Length [ft/ln]  | 22.46 | 23.06 | 4.79 | 7.33 | 4.03 | 0.25 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |      |      |      |
|---------------------------------|-------|-------|------|------|------|------|
| d_M, Delay for Movement [s/veh] | 29.55 | 30.43 | 2.18 | 1.70 | 1.43 | 1.13 |
| Movement LOS                    | C     | C     | A    | A    | A    | A    |
| d_A, Approach Delay [s/veh]     | 29.99 |       | 1.78 |      | 1.42 |      |
| Approach LOS                    | C     |       | A    |      | A    |      |
| d_I, Intersection Delay [s/veh] | 4.79  |       |      |      |      |      |
| Intersection LOS                | A     |       |      |      |      |      |
| Intersection V/C                | 0.199 |       |      |      |      |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.061 | 2.137 | 2.118 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 533   | 1200  | 1200  |
| d_b, Bicycle Delay [s]                                   | 16.14 | 4.81  | 4.81  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 2.147 | 1.873 |
| Bicycle LOS  | A     | B     | A     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 19.3  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.312 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | Meridian Rd   |        |        | Rolling Thunder Way   |        |        | Old Meridian Rd   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 1      | 2   | 0      | 1      | 1   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00  | 100.00 | 250.00 | 280.00  | 100.00 | 190.00 | 350.00  | 100.00 | 300.00 | 265.00  | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 35.00   |        |        | 30.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | No  |        |        | No  |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Base Volume Input [veh/h]                   | 56              | 186    | 8      | 24          | 295    | 19     | 26                  | 32     | 78     | 20              | 29     | 42     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   |
| Growth Factor                               | 1.1255          | 1.1255 | 1.1255 | 1.1255      | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Site-Generated Trips [veh/h]                | 22              | 0      | 0      | 0           | 0      | 11     | 32                  | 11     | 85     | 0               | 11     | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 85              | 209    | 9      | 27          | 332    | 32     | 61                  | 47     | 173    | 23              | 44     | 47     |
| Peak Hour Factor                            | 0.8700          | 0.8700 | 0.8700 | 0.8500      | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 | 0.8800          | 0.8800 | 0.8800 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 24              | 60     | 3      | 8           | 98     | 9      | 18                  | 14     | 51     | 7               | 13     | 13     |
| Total Analysis Volume [veh/h]               | 98              | 240    | 10     | 32          | 391    | 38     | 72                  | 55     | 204    | 26              | 50     | 53     |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No              |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 16      | 36      | 0       | 10      | 30      | 0       | 55       | 14      | 0       | 10      | 14      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C    | R    | L    | C    | R    |
|---|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60    | 60    | 60    | 60    | 60   | 60   | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 0.00  | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 2.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 6     | 12    | 12    | 18    | 10    | 10    | 0     | 34   | 34   | 34   | 34   | 34   |
| g / C, Green / Cycle                    | 0.10  | 0.20  | 0.20  | 0.30  | 0.17  | 0.17  | 0.00  | 0.57 | 0.57 | 0.57 | 0.57 | 0.57 |
| (v / s)_i Volume / Saturation Flow Rate | 0.07  | 0.07  | 0.01  | 0.03  | 0.12  | 0.03  | 0.05  | 0.03 | 0.14 | 0.02 | 0.02 | 0.04 |
| s, saturation flow rate [veh/h]         | 1378  | 3204  | 1431  | 1159  | 3204  | 1431  | 1327  | 1683 | 1431 | 1214 | 3204 | 1431 |
| c, Capacity [veh/h]                     | 285   | 641   | 286   | 463   | 538   | 240   | 120   | 949  | 806  | 740  | 1806 | 806  |
| d1, Uniform Delay [s]                   | 15.58 | 20.80 | 19.38 | 15.01 | 23.73 | 21.40 | 30.08 | 5.92 | 6.68 | 7.33 | 5.82 | 5.95 |
| k, delay calibration                    | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.50  | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.71  | 0.36  | 0.05  | 0.06  | 1.90  | 0.30  | 20.40 | 0.12 | 0.75 | 0.09 | 0.03 | 0.16 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, 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 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |        |       |       |       |       |      |      |       |
|---------------------------------------|-------|-------|-------|-------|--------|-------|-------|-------|-------|------|------|-------|
| X, volume / capacity                  | 0.34  | 0.37  | 0.03  | 0.07  | 0.73   | 0.16  | 0.60  | 0.06  | 0.25  | 0.04 | 0.03 | 0.07  |
| d, Delay for Lane Group [s/veh]       | 16.30 | 21.16 | 19.43 | 15.07 | 25.63  | 21.71 | 50.48 | 6.04  | 7.43  | 7.42 | 5.85 | 6.10  |
| Lane Group LOS                        | B     | C     | B     | B     | C      | C     | D     | A     | A     | A    | A    | A     |
| Critical Lane Group                   | Yes   | No    | No    | No    | Yes    | No    | No    | No    | Yes   | No   | No   | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.95  | 1.36  | 0.11  | 0.29  | 2.54   | 0.44  | 0.86  | 0.27  | 1.16  | 0.16 | 0.12 | 0.28  |
| 50th-Percentile Queue Length [ft/ln]  | 23.70 | 34.03 | 2.68  | 7.17  | 63.60  | 11.04 | 21.40 | 6.67  | 28.90 | 3.94 | 2.96 | 6.90  |
| 95th-Percentile Queue Length [veh/ln] | 1.71  | 2.45  | 0.19  | 0.52  | 4.58   | 0.79  | 1.54  | 0.48  | 2.08  | 0.28 | 0.21 | 0.50  |
| 95th-Percentile Queue Length [ft/ln]  | 42.66 | 61.26 | 4.82  | 12.91 | 114.49 | 19.87 | 38.51 | 12.00 | 52.02 | 7.09 | 5.32 | 12.42 |

**Movement, Approach, & Intersection Results**

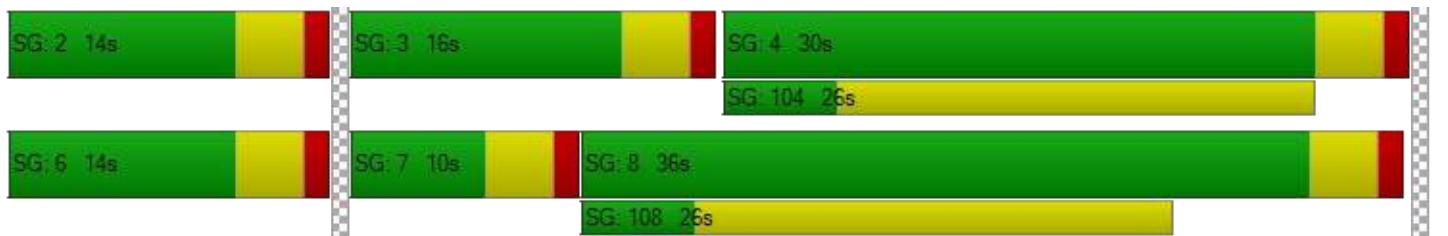
|                                 |       |       |       |       |       |       |       |      |      |      |      |      |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| d_M, Delay for Movement [s/veh] | 16.30 | 21.16 | 19.43 | 15.07 | 25.63 | 21.71 | 50.48 | 6.04 | 7.43 | 7.42 | 5.85 | 6.10 |
| Movement LOS                    | B     | C     | B     | B     | C     | C     | D     | A    | A    | A    | A    | A    |
| d_A, Approach Delay [s/veh]     | 19.74 |       |       | 24.57 |       |       | 16.56 |      |      | 6.27 |      |      |
| Approach LOS                    | B     |       |       | C     |       |       | B     |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh] | 19.30 |       |       |       |       |       |       |      |      |      |      |      |
| Intersection LOS                | B     |       |       |       |       |       |       |      |      |      |      |      |
| Intersection V/C                | 0.312 |       |       |       |       |       |       |      |      |      |      |      |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 21.72 |  |  | 21.72 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.536 |  |  | 2.335 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 1065  |  |  | 865   |  |  | 333   |  |  | 333   |  |  |
| d_b, Bicycle Delay [s]                                   | 6.56  |  |  | 9.67  |  |  | 20.87 |  |  | 20.87 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.847 |  |  | 1.940 |  |  | 2.106 |  |  | 1.666 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | B     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 35.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.685 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24     |        |        | US 24     |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound |        |        | Westbound |        |        |
| Lane Configuration           |                 |        |        |                 |        |        |           |        |        |           |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left      | Thru   | Right  | Left      | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1               | 0      | 1      | 1         | 0      | 1      | 1         | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00          | 100.00 | 343.00 | 200.00          | 100.00 | 220.00 | 350.00    | 100.00 | 350.00 | 390.00    | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0         | 0      | 0      | 0         | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00           |        |        | 55.00     |        |        | 55.00     |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00      |        |        | 0.00      |        |        |
| Curb Present                 | Yes             |        |        | Yes             |        |        | Yes       |        |        | Yes       |        |        |
| Crosswalk                    | No              |        |        | Yes             |        |        | No        |        |        | Yes       |        |        |



**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 5               | 214    | 52     | 19              | 123    | 306    | 74     | 382    | 0      | 66     | 744    | 1      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 1.1255          | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 11     | 0      | 21              | 32     | 32     | 11     | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 6               | 252    | 59     | 42              | 170    | 376    | 94     | 430    | 0      | 74     | 837    | 1      |
| Peak Hour Factor                            | 0.8500          | 0.8500 | 0.8500 | 0.9300          | 0.9300 | 0.9300 | 0.8500 | 0.8500 | 0.8500 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 2               | 74     | 17     | 11              | 46     | 101    | 28     | 126    | 0      | 21     | 241    | 0      |
| Total Analysis Volume [veh/h]               | 7               | 296    | 69     | 45              | 183    | 404    | 111    | 506    | 0      | 85     | 962    | 1      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 130                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 26      | 0       | 9       | 26      | 0       | 9       | 26      | 0       | 69      | 86      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R    | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| C, Cycle Length [s]                     | 130   | 130   | 130   | 130   | 130   | 130   | 130  | 130   | 130   | 130   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00 | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 37    | 29    | 37    | 32    | 85    | 76    | 76   | 85    | 76    | 76    |
| g / C, Green / Cycle                    | 0.28  | 0.22  | 0.28  | 0.24  | 0.65  | 0.59  | 0.59 | 0.65  | 0.59  | 0.59  |
| (v / s)_i Volume / Saturation Flow Rate | 0.01  | 0.09  | 0.05  | 0.06  | 0.07  | 0.30  | 0.00 | 0.10  | 0.57  | 0.00  |
| s, saturation flow rate [veh/h]         | 920   | 3204  | 858   | 3204  | 1498  | 1683  | 1431 | 867   | 1683  | 1431  |
| c, Capacity [veh/h]                     | 367   | 710   | 278   | 782   | 995   | 989   | 840  | 486   | 986   | 838   |
| d1, Uniform Delay [s]                   | 33.63 | 43.39 | 34.63 | 39.41 | 10.33 | 15.81 | 0.00 | 11.14 | 26.01 | 11.15 |
| k, delay calibration                    | 0.11  | 0.50  | 0.50  | 0.11  | 0.50  | 0.11  | 0.11 | 0.11  | 0.41  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.02  | 1.80  | 1.25  | 0.15  | 0.23  | 0.41  | 0.00 | 0.17  | 20.70 | 0.00  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |        |       |        |      |       |        |       |
|---------------------------------------|-------|--------|-------|--------|-------|--------|------|-------|--------|-------|
| X, volume / capacity                  | 0.02  | 0.42   | 0.16  | 0.23   | 0.11  | 0.51   | 0.00 | 0.17  | 0.98   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 33.65 | 45.19  | 35.88 | 39.56  | 10.56 | 16.23  | 0.00 | 11.31 | 46.71  | 11.15 |
| Lane Group LOS                        | C     | D      | D     | D      | B     | B      | A    | B     | D      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No     | No    | No     | No   | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.16  | 4.25   | 1.15  | 2.36   | 1.07  | 7.99   | 0.00 | 0.78  | 30.26  | 0.01  |
| 50th-Percentile Queue Length [ft/ln]  | 4.05  | 106.25 | 28.74 | 59.05  | 26.77 | 199.85 | 0.00 | 19.54 | 756.60 | 0.28  |
| 95th-Percentile Queue Length [veh/ln] | 0.29  | 7.63   | 2.07  | 4.25   | 1.93  | 12.63  | 0.00 | 1.41  | 39.29  | 0.02  |
| 95th-Percentile Queue Length [ft/ln]  | 7.29  | 190.78 | 51.73 | 106.29 | 48.19 | 315.77 | 0.00 | 35.17 | 982.16 | 0.50  |

**Movement, Approach, & Intersection Results**

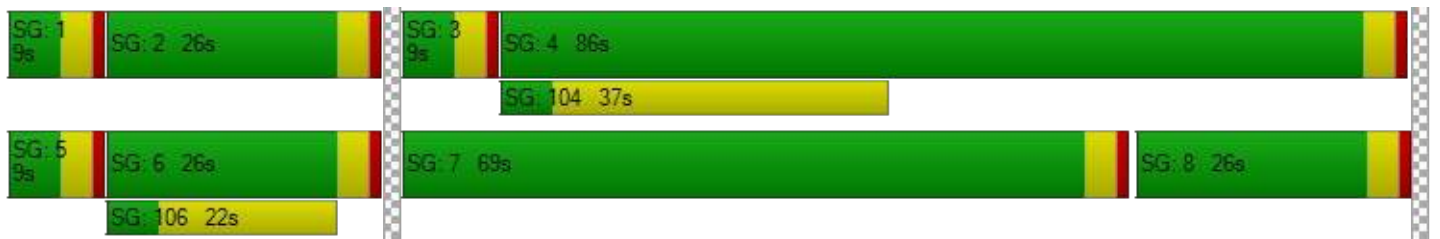
|                                 |       |       |      |       |       |      |       |       |      |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 33.65 | 45.19 | 0.00 | 35.88 | 39.56 | 0.00 | 10.56 | 16.23 | 0.00 | 11.31 | 46.71 | 11.15 |
| Movement LOS                    | C     | D     |      | D     | D     |      | B     | B     | A    | B     | D     | B     |
| d_A, Approach Delay [s/veh]     | 44.92 |       |      | 38.84 |       |      | 15.21 |       |      | 43.80 |       |       |
| Approach LOS                    | D     |       |      | D     |       |      | B     |       |      | D     |       |       |
| d_I, Intersection Delay [s/veh] | 35.41 |       |      |       |       |      |       |       |      |       |       |       |
| Intersection LOS                | D     |       |      |       |       |      |       |       |      |       |       |       |
| Intersection V/C                | 0.685 |       |      |       |       |      |       |       |      |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 9.0   |  |  | 0.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 56.31 |  |  | 0.00  |  |  | 56.31 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 2.655 |  |  | 0.000 |  |  | 2.906 |  |  |
| Crosswalk LOS  | F     |  |  | B     |  |  | F     |  |  | C     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 338   |  |  | 338   |  |  | 338   |  |  | 1262  |  |  |
| d_b, Bicycle Delay [s]                                   | 44.86 |  |  | 44.86 |  |  | 44.86 |  |  | 8.86  |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.810 |  |  | 1.748 |  |  | 2.578 |  |  | 3.289 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | B     |  |  | C     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 25.5  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.651 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           |                |        |        |                |        |        |            |        |        |            |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 150.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   |                |        |        |                |        |        |            |        |        |            |        |        |
| Base Volume Input [veh/h]                   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 1.1255         | 1.1255 | 1.1255 | 1.1255         | 1.1255 | 1.1255 | 1.1255     | 1.1255 | 1.1255 | 1.1255     | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 29             | 0      | 7      | 0              | 0      | 0      | 0          | 0      | 48     | 12         | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 122            | 44     | 22     | 72             | 11     | 116    | 101        | 1638   | 167    | 26         | 1193   | 47     |
| Peak Hour Factor                            | 0.8500         | 0.8500 | 0.8500 | 0.8500         | 0.8500 | 0.8500 | 0.9800     | 0.9800 | 0.9800 | 0.9300     | 0.9300 | 0.9300 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 36             | 13     | 6      | 21             | 3      | 34     | 26         | 418    | 43     | 7          | 321    | 13     |
| Total Analysis Volume [veh/h]               | 144            | 52     | 26     | 85             | 13     | 136    | 103        | 1671   | 170    | 28         | 1283   | 51     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 140                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 0       | 8       | 0       | 0       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       | 0       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 0       | 87      | 0       | 0       | 87      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0       | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   | 140   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 49    | 49    | 49    | 49    | 49    | 83    | 83    | 83    | 83    | 83    | 83    |
| g / C, Green / Cycle                    | 0.35  | 0.35  | 0.35  | 0.35  | 0.35  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  |
| (v / s)_i Volume / Saturation Flow Rate | 0.13  | 0.03  | 0.02  | 0.07  | 0.10  | 0.27  | 0.52  | 0.12  | 0.10  | 0.40  | 0.04  |
| s, saturation flow rate [veh/h]         | 1114  | 1683  | 1431  | 1217  | 1507  | 388   | 3204  | 1431  | 267   | 3204  | 1431  |
| c, Capacity [veh/h]                     | 353   | 592   | 503   | 440   | 530   | 166   | 1894  | 846   | 84    | 1894  | 846   |
| d1, Uniform Delay [s]                   | 42.78 | 30.33 | 29.93 | 34.80 | 32.61 | 47.41 | 24.43 | 13.27 | 60.50 | 19.50 | 12.13 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 3.48  | 0.29  | 0.19  | 0.97  | 1.32  | 3.78  | 1.50  | 0.12  | 2.33  | 0.43  | 0.03  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |       |       |        |        |        |        |        |       |        |       |
|---------------------------------------|--------|-------|-------|--------|--------|--------|--------|--------|-------|--------|-------|
| X, volume / capacity                  | 0.41   | 0.09  | 0.05  | 0.19   | 0.28   | 0.62   | 0.88   | 0.20   | 0.34  | 0.68   | 0.06  |
| d, Delay for Lane Group [s/veh]       | 46.26  | 30.62 | 30.13 | 35.78  | 33.94  | 51.19  | 25.93  | 13.39  | 62.83 | 19.93  | 12.15 |
| Lane Group LOS                        | D      | C     | C     | D      | C      | D      | C      | B      | E     | B      | B     |
| Critical Lane Group                   | Yes    | No    | No    | No     | No     | No     | Yes    | No     | No    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 4.52   | 1.23  | 0.61  | 2.27   | 3.88   | 3.46   | 21.12  | 2.32   | 1.00  | 12.82  | 0.63  |
| 50th-Percentile Queue Length [ft/ln]  | 112.93 | 30.83 | 15.30 | 56.81  | 97.10  | 86.40  | 528.10 | 57.95  | 24.95 | 320.40 | 15.87 |
| 95th-Percentile Queue Length [veh/ln] | 8.00   | 2.22  | 1.10  | 4.09   | 6.99   | 6.22   | 28.66  | 4.17   | 1.80  | 18.69  | 1.14  |
| 95th-Percentile Queue Length [ft/ln]  | 200.08 | 55.50 | 27.55 | 102.25 | 174.78 | 155.52 | 716.54 | 104.30 | 44.91 | 467.17 | 28.57 |



**Movement, Approach, & Intersection Results**

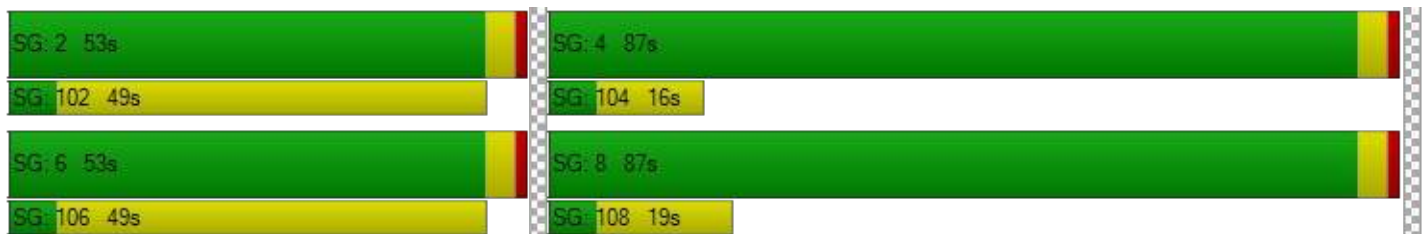
|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 46.26 | 30.62 | 30.13 | 35.78 | 33.94 | 33.94 | 51.19 | 25.93 | 13.39 | 62.83 | 19.93 | 12.15 |
| Movement LOS                    | D     | C     | C     | D     | C     | C     | D     | C     | B     | E     | B     | B     |
| d_A, Approach Delay [s/veh]     | 40.71 |       |       | 34.60 |       |       | 26.17 |       |       | 20.52 |       |       |
| Approach LOS                    | D     |       |       | C     |       |       | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 25.51 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.651 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 61.25 | 61.25 | 61.25 | 61.25 |
| l_p,int, Pedestrian LOS Score for Intersection           | 2.316 | 2.252 | 3.717 | 3.540 |
| Crosswalk LOS  | B     | B     | D     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 700   | 700   | 1186  | 1186  |
| d_b, Bicycle Delay [s]                                   | 29.54 | 29.54 | 11.58 | 11.58 |
| l_b,int, Bicycle LOS Score for Intersection              | 1.926 | 1.946 | 3.163 | 2.683 |
| Bicycle LOS  | A     | A     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 19.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.045 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 8               | 7      | 24     | 9               | 4      | 2      | 0              | 72     | 13     | 34                  | 108    | 6      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.1255          | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 | 1.1255         | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 22              | 0      | 63     | 0               | 0      | 0      | 0              | 24     | 36     | 108                 | 14     | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 31              | 8      | 90     | 10              | 5      | 2      | 0              | 105    | 51     | 146                 | 136    | 7      |
| Peak Hour Factor                        | 0.8500          | 0.8500 | 0.8500 | 0.8500          | 0.8500 | 0.8500 | 0.8500         | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 9               | 2      | 26     | 3               | 1      | 1      | 0              | 31     | 15     | 43                  | 40     | 2      |
| Total Analysis Volume [veh/h]           | 36              | 9      | 106    | 12              | 6      | 2      | 0              | 124    | 60     | 172                 | 160    | 8      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |      |      |      |      |       |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|-------|------|------|
| V/C, Movement V/C Ratio               | 0.11  | 0.03  | 0.12  | 0.04  | 0.02  | 0.00 | 0.00 | 0.00 | 0.00 | 0.12  | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 17.89 | 17.86 | 11.09 | 19.24 | 17.01 | 9.92 | 7.55 | 0.00 | 0.00 | 7.95  | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | C     | C     | A    | A    | A    | A    | A     | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 1.00  | 1.00  | 1.00  | 0.21  | 0.21  | 0.21 | 0.00 | 0.00 | 0.00 | 0.42  | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 25.11 | 25.11 | 25.11 | 5.24  | 5.24  | 5.24 | 0.00 | 0.00 | 0.00 | 10.55 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 13.12 |       |       | 17.64 |       |      | 0.00 |      |      | 4.02  |      |      |
| Approach LOS                          | B     |       |       | C     |       |      | A    |      |      | A     |      |      |
| d_I, Intersection Delay [s/veh]       | 5.33  |       |       |       |       |      |      |      |      |       |      |      |
| Intersection LOS                      | C     |       |       |       |       |      |      |      |      |       |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 19.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.061 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | ⊕                       |        |        | ⊕                       |        |        | ↔                   |        |        | ↔                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 4                       | 0      | 16     | 12                      | 0      | 2      | 2                   | 83     | 3      | 13                  | 161    | 25     |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 1.1255                  | 1.1255 | 1.1255 | 1.1255                  | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 14                      | 0      | 42     | 0                       | 0      | 0      | 0                   | 63     | 24     | 72                  | 108    | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 19                      | 0      | 60     | 14                      | 0      | 2      | 2                   | 156    | 27     | 87                  | 289    | 28     |
| Peak Hour Factor                        | 0.8800                  | 0.8800 | 0.8800 | 0.8500                  | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 | 0.8500              | 0.8500 | 0.8500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 5                       | 0      | 17     | 4                       | 0      | 1      | 1                   | 46     | 8      | 26                  | 85     | 8      |
| Total Analysis Volume [veh/h]           | 22                      | 0      | 68     | 16                      | 0      | 2      | 2                   | 184    | 32     | 102                 | 340    | 33     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.07  | 0.00  | 0.08  | 0.06  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 18.12 | 18.07 | 10.40 | 19.56 | 17.81 | 11.10 | 8.04 | 0.00 | 0.00 | 7.88 | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | C     | C     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.54  | 0.54  | 0.54  | 0.20  | 0.20  | 0.20  | 0.01 | 0.00 | 0.00 | 0.24 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 13.55 | 13.55 | 13.55 | 5.08  | 5.08  | 5.08  | 0.13 | 0.00 | 0.00 | 6.10 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 12.29 |       |       | 18.62 |       |       | 0.07 |      |      | 1.69 |      |      |
| Approach LOS                          | B     |       |       | C     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 2.82  |       |       |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | C     |       |       |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 8.0   |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | A     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.290 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔                 |        | ↕                   |        | ↕                   |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 63                | 35     | 21                  | 91     | 162                 | 27     |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 1.1255            | 1.1255 | 1.1255              | 1.1255 | 1.1255              | 1.1255 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 36     | 21                  | 84     | 144                 | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 71                | 75     | 45                  | 186    | 326                 | 30     |
| Peak Hour Factor                            | 0.8500            | 0.8500 | 0.8500              | 0.8500 | 0.8500              | 0.8500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 21                | 22     | 13                  | 55     | 96                  | 9      |
| Total Analysis Volume [veh/h]               | 84                | 88     | 53                  | 219    | 384                 | 35     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 41         | 0          | 0          | 19         | 19         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | R     | L    | C    | C    | R    |
|---|-------|-------|------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60   | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 6     | 6     | 46   | 46   | 46   | 46   |
| g / C, Green / Cycle                    | 0.09  | 0.09  | 0.77 | 0.77 | 0.77 | 0.77 |
| (v / s)_i Volume / Saturation Flow Rate | 0.05  | 0.06  | 0.06 | 0.13 | 0.23 | 0.02 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 899  | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 154   | 138   | 708  | 1297 | 1297 | 1102 |
| d1, Uniform Delay [s]                   | 25.89 | 26.14 | 3.81 | 1.82 | 2.05 | 1.62 |
| k, delay calibration                    | 0.11  | 0.11  | 0.50 | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 2.98  | 4.87  | 0.21 | 0.28 | 0.58 | 0.05 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |      |       |       |      |
|---------------------------------------|-------|-------|------|-------|-------|------|
| X, volume / capacity                  | 0.55  | 0.64  | 0.07 | 0.17  | 0.30  | 0.03 |
| d, Delay for Lane Group [s/veh]       | 28.87 | 31.02 | 4.02 | 2.10  | 2.63  | 1.67 |
| Lane Group LOS                        | C     | C     | A    | A     | A     | A    |
| Critical Lane Group                   | No    | Yes   | No   | No    | Yes   | No   |
| 50th-Percentile Queue Length [veh/ln] | 1.19  | 1.31  | 0.19 | 0.28  | 0.56  | 0.04 |
| 50th-Percentile Queue Length [ft/ln]  | 29.74 | 32.74 | 4.72 | 6.91  | 13.88 | 1.03 |
| 95th-Percentile Queue Length [veh/ln] | 2.14  | 2.36  | 0.34 | 0.50  | 1.00  | 0.07 |
| 95th-Percentile Queue Length [ft/ln]  | 53.54 | 58.94 | 8.50 | 12.43 | 24.99 | 1.86 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |      |      |      |
|---------------------------------|-------|-------|------|------|------|------|
| d_M, Delay for Movement [s/veh] | 28.87 | 31.02 | 4.02 | 2.10 | 2.63 | 1.67 |
| Movement LOS                    | C     | C     | A    | A    | A    | A    |
| d_A, Approach Delay [s/veh]     | 29.97 |       | 2.47 |      | 2.55 |      |
| Approach LOS                    | C     |       | A    |      | A    |      |
| d_I, Intersection Delay [s/veh] | 7.99  |       |      |      |      |      |
| Intersection LOS                | A     |       |      |      |      |      |
| Intersection V/C                | 0.290 |       |      |      |      |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.69 | 21.69 | 21.69 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.095 | 2.203 | 2.195 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 1233  | 500   | 500   |
| d_b, Bicycle Delay [s]                                   | 4.42  | 16.89 | 16.89 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 2.008 | 2.251 |
| Bicycle LOS  | A     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 22.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.312 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound  |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           |                 |        |        |             |        |        |                     |        |        |                     |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left        | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00       | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1           | 0      | 1      | 2                   | 0      | 1      | 1                   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00          | 100.00 | 250.00 | 280.00      | 100.00 | 190.00 | 350.00              | 100.00 | 300.00 | 265.00              | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00        | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00       |        |        | 35.00               |        |        | 30.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00        |        |        | 0.00                |        |        | 0.00                |        |        |
| Curb Present                 | Yes             |        |        | Yes         |        |        | Yes                 |        |        | Yes                 |        |        |
| Crosswalk                    | No              |        |        | No          |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]                   | 80              | 386    | 33     | 72          | 187    | 47     | 43                  | 32     | 69     | 22                  | 47     | 98     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                               | 1.1255          | 1.1255 | 1.1255 | 1.1255      | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 | 1.1255              | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]                | 72              | 0      | 0      | 0           | 0      | 36     | 21                  | 7      | 56     | 0                   | 36     | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 162             | 434    | 37     | 81          | 210    | 89     | 69                  | 43     | 134    | 25                  | 89     | 110    |
| Peak Hour Factor                            | 0.8800          | 0.8800 | 0.8800 | 0.8500      | 0.8500 | 0.8500 | 0.9000              | 0.9000 | 0.9000 | 0.9100              | 0.9100 | 0.9100 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 46              | 123    | 11     | 24          | 62     | 26     | 19                  | 12     | 37     | 7                   | 24     | 30     |
| Total Analysis Volume [veh/h]               | 184             | 493    | 42     | 95          | 247    | 105    | 77                  | 48     | 149    | 27                  | 98     | 121    |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No                  |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 70                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 16      | 37      | 0       | 9       | 30      | 0       | 10       | 15      | 0       | 9       | 14      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C    | R     | L    | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|------|-------|------|-------|-------|
| C, Cycle Length [s]                     | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70   | 70    | 70   | 70    | 70    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00  | 4.00 | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 2.00  | 2.00 | 2.00  | 0.00 | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 22    | 14    | 14    | 22    | 10    | 10    | 4     | 34   | 34    | 40   | 32    | 32    |
| g / C, Green / Cycle                    | 0.32  | 0.20  | 0.20  | 0.32  | 0.14  | 0.14  | 0.06  | 0.48 | 0.48  | 0.57 | 0.46  | 0.46  |
| (v / s)_i Volume / Saturation Flow Rate | 0.14  | 0.15  | 0.03  | 0.09  | 0.08  | 0.07  | 0.02  | 0.03 | 0.10  | 0.02 | 0.03  | 0.08  |
| s, saturation flow rate [veh/h]         | 1286  | 3204  | 1431  | 1038  | 3204  | 1431  | 3113  | 1683 | 1431  | 1261 | 3204  | 1431  |
| c, Capacity [veh/h]                     | 491   | 640   | 286   | 364   | 464   | 207   | 178   | 807  | 686   | 838  | 1452  | 648   |
| d1, Uniform Delay [s]                   | 18.60 | 26.59 | 23.18 | 18.13 | 27.84 | 27.73 | 32.01 | 9.81 | 10.63 | 6.71 | 10.84 | 11.48 |
| k, delay calibration                    | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.50 | 0.50  | 0.11 | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.47  | 2.00  | 0.23  | 0.38  | 0.95  | 1.91  | 1.65  | 0.14 | 0.73  | 0.02 | 0.09  | 0.64  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |       |       |       |       |       |      |       |       |
|---------------------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| X, volume / capacity                  | 0.37  | 0.77   | 0.15  | 0.26  | 0.53  | 0.51  | 0.43  | 0.06  | 0.22  | 0.03 | 0.07  | 0.19  |
| d, Delay for Lane Group [s/veh]       | 19.08 | 28.59  | 23.41 | 18.50 | 28.79 | 29.64 | 33.66 | 9.95  | 11.36 | 6.72 | 10.93 | 12.11 |
| Lane Group LOS                        | B     | C      | C     | B     | C     | C     | C     | A     | B     | A    | B     | B     |
| Critical Lane Group                   | No    | Yes    | No    | Yes   | No    | No    | No    | No    | Yes   | Yes  | No    | No    |
| 50th-Percentile Queue Length [veh/ln] | 2.18  | 3.82   | 0.56  | 1.07  | 1.88  | 1.65  | 0.64  | 0.38  | 1.30  | 0.16 | 0.41  | 1.14  |
| 50th-Percentile Queue Length [ft/ln]  | 54.56 | 95.44  | 13.98 | 26.68 | 46.92 | 41.19 | 16.09 | 9.43  | 32.54 | 3.88 | 10.22 | 28.40 |
| 95th-Percentile Queue Length [veh/ln] | 3.93  | 6.87   | 1.01  | 1.92  | 3.38  | 2.97  | 1.16  | 0.68  | 2.34  | 0.28 | 0.74  | 2.04  |
| 95th-Percentile Queue Length [ft/ln]  | 98.22 | 171.79 | 25.17 | 48.02 | 84.46 | 74.15 | 28.97 | 16.97 | 58.56 | 6.98 | 18.39 | 51.12 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |      |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 19.08 | 28.59 | 23.41 | 18.50 | 28.79 | 29.64 | 33.66 | 9.95 | 11.36 | 6.72  | 10.93 | 12.11 |
| Movement LOS                    | B     | C     | C     | B     | C     | C     | C     | A    | B     | A     | B     | B     |
| d_A, Approach Delay [s/veh]     | 25.85 |       |       | 26.80 |       |       | 17.38 |      |       | 11.05 |       |       |
| Approach LOS                    | C     |       |       | C     |       |       | B     |      |       | B     |       |       |
| d_I, Intersection Delay [s/veh] | 22.57 |       |       |       |       |       |       |      |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |      |       |       |       |       |
| Intersection V/C                | 0.312 |       |       |       |       |       |       |      |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   | 0.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 0.00  | 0.00  | 26.64 | 26.64 |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 | 0.000 | 2.612 | 2.404 |
| Crosswalk LOS  | F     | F     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 941   | 741   | 314   | 285   |
| d_b, Bicycle Delay [s]                                   | 9.83  | 13.88 | 24.93 | 25.78 |
| I_b,int, Bicycle LOS Score for Intersection              | 2.153 | 1.928 | 2.012 | 1.763 |
| Bicycle LOS  | B     | A     | B     | A     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 42.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.795 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24     |        |        | US 24     |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound |        |        | Westbound |        |        |
| Lane Configuration           |                 |        |        |                 |        |        |           |        |        |           |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left      | Thru   | Right  | Left      | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  | 12.00     | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1               | 0      | 1      | 1         | 0      | 1      | 1         | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00          | 100.00 | 343.00 | 200.00          | 100.00 | 220.00 | 350.00    | 100.00 | 350.00 | 390.00    | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0         | 0      | 0      | 0         | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   | 0.00      | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00           |        |        | 55.00     |        |        | 55.00     |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00      |        |        | 0.00      |        |        |
| Curb Present                 | Yes             |        |        | Yes             |        |        | Yes       |        |        | Yes       |        |        |
| Crosswalk                    | No              |        |        | Yes             |        |        | No        |        |        | Yes       |        |        |



**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 2               | 339    | 68     | 36              | 259    | 144    | 293    | 768    | 1      | 184    | 496    | 2      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 1.1255          | 1.1255 | 1.1255 | 1.1255          | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 | 1.1255 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 36     | 0      | 14              | 21     | 21     | 36     | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 2               | 418    | 77     | 55              | 313    | 183    | 366    | 864    | 1      | 207    | 558    | 2      |
| Peak Hour Factor                            | 0.9800          | 0.9800 | 0.9800 | 0.8500          | 0.8500 | 0.8500 | 0.9000 | 0.9000 | 0.9000 | 0.8800 | 0.8800 | 0.8800 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 1               | 107    | 20     | 16              | 92     | 54     | 102    | 240    | 0      | 59     | 159    | 1      |
| Total Analysis Volume [veh/h]               | 2               | 427    | 79     | 65              | 368    | 215    | 407    | 960    | 1      | 235    | 634    | 2      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 150                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 12      | 27      | 0       | 9       | 24      | 0       | 22      | 100     | 0       | 14      | 92      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 41    | 32    | 41    | 37    | 101   | 87    | 87    | 101   | 80    | 80    |
| g / C, Green / Cycle                    | 0.27  | 0.21  | 0.27  | 0.24  | 0.67  | 0.58  | 0.58  | 0.67  | 0.54  | 0.54  |
| (v / s)_i Volume / Saturation Flow Rate | 0.00  | 0.13  | 0.06  | 0.11  | 0.47  | 0.57  | 0.00  | 0.36  | 0.38  | 0.00  |
| s, saturation flow rate [veh/h]         | 962   | 3204  | 1019  | 3204  | 869   | 1683  | 1431  | 645   | 1683  | 1431  |
| c, Capacity [veh/h]                     | 197   | 523   | 194   | 621   | 504   | 1061  | 901   | 263   | 983   | 835   |
| d1, Uniform Delay [s]                   | 45.99 | 60.59 | 48.31 | 55.06 | 20.47 | 23.88 | 10.27 | 43.27 | 20.84 | 13.01 |
| k, delay calibration                    | 0.11  | 0.50  | 0.50  | 0.50  | 0.50  | 0.40  | 0.11  | 0.19  | 0.20  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.02  | 13.21 | 4.60  | 4.12  | 12.97 | 10.43 | 0.00  | 16.09 | 1.35  | 0.00  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |        |        |         |       |        |        |       |
|---------------------------------------|-------|--------|-------|--------|--------|---------|-------|--------|--------|-------|
| X, volume / capacity                  | 0.01  | 0.82   | 0.33  | 0.59   | 0.81   | 0.91    | 0.00  | 0.89   | 0.65   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 46.01 | 73.80  | 52.91 | 59.18  | 33.44  | 34.32   | 10.27 | 59.36  | 22.20  | 13.01 |
| Lane Group LOS                        | D     | E      | D     | E      | C      | C       | B     | E      | C      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No     | No     | Yes     | No    | Yes    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.06  | 8.27   | 2.09  | 6.26   | 7.04   | 33.17   | 0.01  | 3.81   | 15.95  | 0.03  |
| 50th-Percentile Queue Length [ft/ln]  | 1.39  | 206.74 | 52.23 | 156.48 | 176.07 | 829.26  | 0.34  | 95.35  | 398.68 | 0.77  |
| 95th-Percentile Queue Length [veh/ln] | 0.10  | 12.99  | 3.76  | 10.36  | 11.40  | 42.62   | 0.02  | 6.87   | 22.50  | 0.06  |
| 95th-Percentile Queue Length [ft/ln]  | 2.50  | 324.64 | 94.01 | 259.05 | 284.88 | 1065.39 | 0.61  | 171.63 | 562.40 | 1.39  |

**Movement, Approach, & Intersection Results**

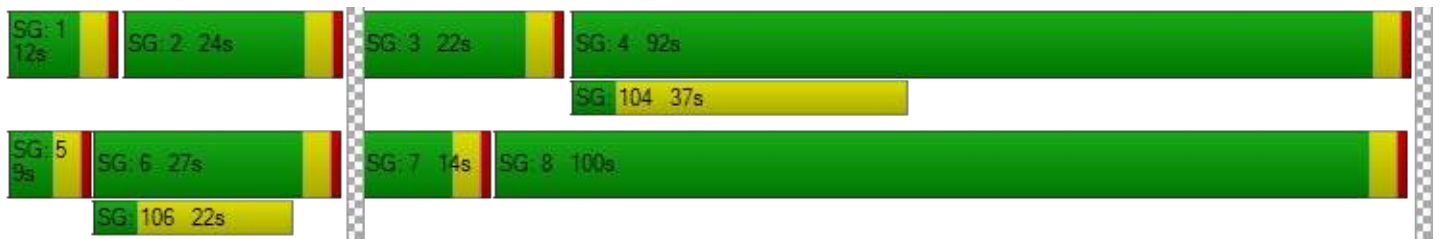
|                                 |       |       |      |       |       |      |       |       |       |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 46.01 | 73.80 | 0.00 | 52.91 | 59.18 | 0.00 | 33.44 | 34.32 | 10.27 | 59.36 | 22.20 | 13.01 |
| Movement LOS                    | D     | E     |      | D     | E     |      | C     | C     | B     | E     | C     | B     |
| d_A, Approach Delay [s/veh]     | 73.67 |       |      | 58.24 |       |      | 34.04 |       |       | 32.20 |       |       |
| Approach LOS                    | E     |       |      | E     |       |      | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 42.38 |       |      |       |       |      |       |       |       |       |       |       |
| Intersection LOS                | D     |       |      |       |       |      |       |       |       |       |       |       |
| Intersection V/C                | 0.795 |       |      |       |       |      |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 9.0   |  |  | 0.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 66.27 |  |  | 0.00  |  |  | 66.27 |  |  |
| l_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 3.037 |  |  | 0.000 |  |  | 3.024 |  |  |
| Crosswalk LOS  | F     |  |  | C     |  |  | F     |  |  | C     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 307   |  |  | 267   |  |  | 1280  |  |  | 1173  |  |  |
| d_b, Bicycle Delay [s]                                   | 53.76 |  |  | 56.33 |  |  | 9.72  |  |  | 12.81 |  |  |
| l_b,int, Bicycle LOS Score for Intersection              | 1.914 |  |  | 1.917 |  |  | 3.817 |  |  | 2.997 |  |  |
| Bicycle LOS  | A     |  |  | A     |  |  | D     |  |  | C     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Appendix E**

**Horizon (2045) LOS Reports**

**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 166.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | F     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 1.183 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           |                |        |        |                |        |        |            |        |        |            |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 150.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   |                |        |        |                |        |        |            |        |        |            |        |        |
| Base Volume Input [veh/h]                   | 127            | 21     | 4      | 37             | 17     | 111    | 42         | 728    | 53     | 13         | 1279   | 21     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 2.0328         | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 258            | 43     | 8      | 75             | 35     | 226    | 85         | 1480   | 108    | 26         | 2600   | 43     |
| Peak Hour Factor                            | 0.9500         | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 68             | 11     | 2      | 20             | 9      | 59     | 22         | 389    | 28     | 7          | 684    | 11     |
| Total Analysis Volume [veh/h]               | 272            | 45     | 8      | 79             | 37     | 238    | 89         | 1558   | 114    | 27         | 2737   | 45     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 170                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 3        | 8       | 0       | 0       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | Lead     | -       | -       | -       | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 5        | 10      | 0       | 0       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 30       | 30      | 0       | 0       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 58      | 0       | 0       | 58      | 0       | 11       | 112     | 0       | 0       | 101     | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0        | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         | No       | No      |         |         | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         | No       | No      |         |         | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         | No       | No      |         |         | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L      | C     | R     | L     | C     | L      | C     | R     | L     | C      | R     |
|---|--------|-------|-------|-------|-------|--------|-------|-------|-------|--------|-------|
| C, Cycle Length [s]                     | 170    | 170   | 170   | 170   | 170   | 170    | 170   | 170   | 170   | 170    | 170   |
| L, Total Lost Time per Cycle [s]        | 4.00   | 4.00  | 4.00  | 4.00  | 4.00  | 4.00   | 4.00  | 4.00  | 4.00  | 4.00   | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00   | 0.00  | 0.00  | 2.00  | 0.00  | 0.00   | 0.00  | 0.00  | 2.00  | 0.00   | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00   | 2.00  | 2.00  | 2.00  | 2.00  | 2.00   | 2.00  | 2.00  | 2.00  | 2.00   | 2.00  |
| g_i, Effective Green Time [s]           | 54     | 54    | 54    | 54    | 54    | 7      | 108   | 108   | 97    | 97     | 97    |
| g / C, Green / Cycle                    | 0.32   | 0.32  | 0.32  | 0.32  | 0.32  | 0.04   | 0.63  | 0.63  | 0.57  | 0.57   | 0.57  |
| (v / s)_i Volume / Saturation Flow Rate | 0.27   | 0.03  | 0.01  | 0.06  | 0.18  | 0.06   | 0.49  | 0.08  | 0.09  | 0.85   | 0.03  |
| s, saturation flow rate [veh/h]         | 994    | 1683  | 1431  | 1225  | 1518  | 1603   | 3204  | 1431  | 298   | 3204   | 1431  |
| c, Capacity [veh/h]                     | 201    | 537   | 456   | 399   | 484   | 66     | 2032  | 907   | 103   | 1825   | 815   |
| d1, Uniform Delay [s]                   | 74.27  | 40.53 | 39.67 | 45.69 | 48.17 | 81.50  | 22.14 | 12.36 | 59.17 | 36.60  | 16.27 |
| k, delay calibration                    | 0.50   | 0.50  | 0.50  | 0.50  | 0.50  | 0.11   | 0.11  | 0.11  | 0.11  | 0.29   | 0.11  |
| l, Upstream Filtering Factor            | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |
| d2, Incremental Delay [s]               | 187.37 | 0.31  | 0.07  | 1.11  | 4.77  | 177.02 | 0.63  | 0.06  | 1.33  | 226.68 | 0.03  |
| d3, Initial Queue Delay [s]             | 0.00   | 0.00  | 0.00  | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.00  | 0.00   | 0.00  |
| Rp, platoon ratio                       | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |
| PF, progression factor                  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |

**Lane Group Results**

|                                       |        |       |       |        |        |        |        |       |       |         |       |
|---------------------------------------|--------|-------|-------|--------|--------|--------|--------|-------|-------|---------|-------|
| X, volume / capacity                  | 1.35   | 0.08  | 0.02  | 0.20   | 0.57   | 1.35   | 0.77   | 0.13  | 0.26  | 1.50    | 0.06  |
| d, Delay for Lane Group [s/veh]       | 261.64 | 40.84 | 39.74 | 46.80  | 52.94  | 258.52 | 22.77  | 12.42 | 60.49 | 263.28  | 16.30 |
| Lane Group LOS                        | F      | D     | D     | D      | D      | F      | C      | B     | E     | F       | B     |
| Critical Lane Group                   | Yes    | No    | No    | No     | No     | Yes    | No     | No    | No    | Yes     | No    |
| 50th-Percentile Queue Length [veh/ln] | 19.35  | 1.39  | 0.24  | 2.71   | 10.49  | 6.09   | 20.23  | 1.65  | 1.03  | 91.96   | 0.76  |
| 50th-Percentile Queue Length [ft/ln]  | 483.70 | 34.76 | 6.07  | 67.74  | 262.13 | 152.13 | 505.82 | 41.35 | 25.84 | 2298.90 | 19.07 |
| 95th-Percentile Queue Length [veh/ln] | 31.09  | 2.50  | 0.44  | 4.88   | 15.80  | 10.85  | 27.61  | 2.98  | 1.86  | 140.30  | 1.37  |
| 95th-Percentile Queue Length [ft/ln]  | 777.20 | 62.57 | 10.93 | 121.94 | 394.89 | 271.28 | 690.24 | 74.44 | 46.51 | 3507.60 | 34.33 |

**Movement, Approach, & Intersection Results**

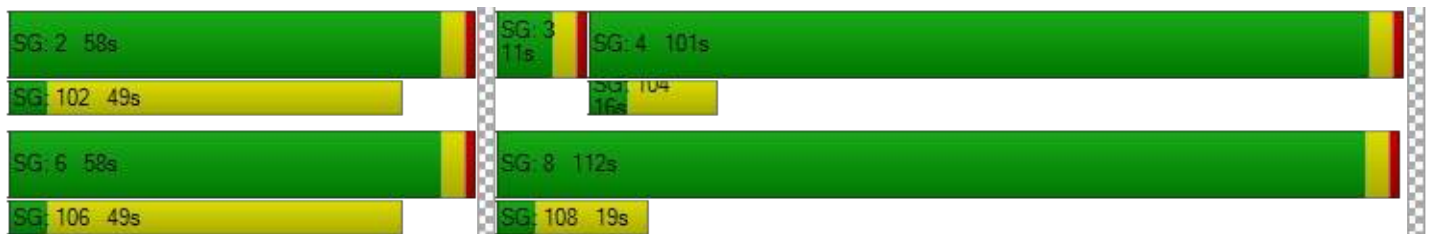
|                                 |        |       |       |       |       |       |        |       |       |        |        |       |
|---------------------------------|--------|-------|-------|-------|-------|-------|--------|-------|-------|--------|--------|-------|
| d_M, Delay for Movement [s/veh] | 261.64 | 40.84 | 39.74 | 46.80 | 52.94 | 52.94 | 258.52 | 22.77 | 12.42 | 60.49  | 263.28 | 16.30 |
| Movement LOS                    | F      | D     | D     | D     | D     | D     | F      | C     | B     | E      | F      | B     |
| d_A, Approach Delay [s/veh]     | 225.61 |       |       | 51.57 |       |       | 34.01  |       |       | 257.37 |        |       |
| Approach LOS                    | F      |       |       | D     |       |       | C      |       |       | F      |        |       |
| d_I, Intersection Delay [s/veh] | 166.59 |       |       |       |       |       |        |       |       |        |        |       |
| Intersection LOS                | F      |       |       |       |       |       |        |       |       |        |        |       |
| Intersection V/C                | 1.183  |       |       |       |       |       |        |       |       |        |        |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   |  |  | 9.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 76.24 |  |  | 76.24 |  |  | 76.24 |  |  | 76.24 |  |  |
| l_p,int, Pedestrian LOS Score for Intersection           | 2.344 |  |  | 2.145 |  |  | 4.291 |  |  | 3.875 |  |  |
| Crosswalk LOS  | B     |  |  | B     |  |  | E     |  |  | D     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 635   |  |  | 635   |  |  | 1271  |  |  | 1141  |  |  |
| d_b, Bicycle Delay [s]                                   | 39.58 |  |  | 39.58 |  |  | 11.31 |  |  | 15.67 |  |  |
| l_b,int, Bicycle LOS Score for Intersection              | 2.096 |  |  | 2.144 |  |  | 3.012 |  |  | 3.877 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | C     |  |  | D     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 13.1  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.036 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 15              | 3      | 41     | 8               | 6      | 1      | 1              | 48     | 5      | 21                  | 83     | 3      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 30              | 6      | 83     | 16              | 12     | 2      | 2              | 98     | 10     | 43                  | 169    | 6      |
| Peak Hour Factor                        | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 8               | 2      | 22     | 4               | 3      | 1      | 1              | 26     | 3      | 11                  | 44     | 2      |
| Total Analysis Volume [veh/h]           | 32              | 6      | 87     | 17              | 13     | 2      | 2              | 103    | 11     | 45                  | 178    | 6      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.06  | 0.01  | 0.09  | 0.04  | 0.02  | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 12.54 | 12.69 | 9.71  | 13.13 | 12.29 | 9.66 | 7.59 | 0.00 | 0.00 | 7.52 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A     | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.58  | 0.58  | 0.58  | 0.20  | 0.20  | 0.20 | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 14.43 | 14.43 | 14.43 | 5.03  | 5.03  | 5.03 | 0.11 | 0.00 | 0.00 | 2.36 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 10.58 |       |       | 12.57 |       |      | 0.13 |      |      | 1.48 |      |      |
| Approach LOS                          | B     |       |       | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 4.14  |       |       |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |       |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 13.3  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.090 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | +                   |        |        | +                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 5                       | 1      | 20     | 20                      | 0      | 3      | 2                   | 86     | 2      | 6                   | 101    | 7      |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328                  | 2.0328 | 2.0328 | 2.0328                  | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 10                      | 2      | 41     | 41                      | 0      | 6      | 4                   | 175    | 4      | 12                  | 205    | 14     |
| Peak Hour Factor                        | 0.9500                  | 0.9500 | 0.9500 | 0.9500                  | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 3                       | 1      | 11     | 11                      | 0      | 2      | 1                   | 46     | 1      | 3                   | 54     | 4      |
| Total Analysis Volume [veh/h]           | 11                      | 2      | 43     | 43                      | 0      | 6      | 4                   | 184    | 4      | 13                  | 216    | 15     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.02  | 0.00  | 0.05 | 0.09  | 0.00  | 0.01  | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 12.41 | 12.63 | 9.60 | 13.35 | 12.96 | 10.19 | 7.70 | 0.00 | 0.00 | 7.62 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.24  | 0.24  | 0.24 | 0.32  | 0.32  | 0.32  | 0.01 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 6.12  | 6.12  | 6.12 | 8.08  | 8.08  | 8.08  | 0.23 | 0.00 | 0.00 | 0.71 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 10.26 |       |      | 12.96 |       |       | 0.16 |      |      | 0.41 |      |      |
| Approach LOS                          | B     |       |      | B     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 2.48  |       |      |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 6.1   |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | A     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.174 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 26                | 16     | 18                  | 109    | 96                  | 8      |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 2.0328            | 2.0328 | 2.0328              | 2.0328 | 2.0328              | 2.0328 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 53                | 33     | 37                  | 222    | 195                 | 16     |
| Peak Hour Factor                            | 0.9500            | 0.9500 | 0.9500              | 0.9500 | 0.9500              | 0.9500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 14                | 9      | 10                  | 58     | 51                  | 4      |
| Total Analysis Volume [veh/h]               | 56                | 35     | 39                  | 234    | 205                 | 17     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 20         | 0          | 0          | 40         | 40         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | R     | L    | C    | C    | R    |
|---|-------|-------|------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60   | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 4     | 4     | 48   | 48   | 48   | 48   |
| g / C, Green / Cycle                    | 0.07  | 0.07  | 0.80 | 0.80 | 0.80 | 0.80 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03  | 0.02  | 0.04 | 0.14 | 0.12 | 0.01 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 1059 | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 107   | 96    | 896  | 1346 | 1346 | 1144 |
| d1, Uniform Delay [s]                   | 27.09 | 26.79 | 2.23 | 1.40 | 1.37 | 1.22 |
| k, delay calibration                    | 0.11  | 0.11  | 0.50 | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 3.91  | 2.33  | 0.09 | 0.28 | 0.24 | 0.02 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |      |      |      |      |
|---------------------------------------|-------|-------|------|------|------|------|
| X, volume / capacity                  | 0.52  | 0.37  | 0.04 | 0.17 | 0.15 | 0.01 |
| d, Delay for Lane Group [s/veh]       | 31.00 | 29.13 | 2.32 | 1.68 | 1.61 | 1.24 |
| Lane Group LOS                        | C     | C     | A    | A    | A    | A    |
| Critical Lane Group                   | Yes   | No    | No   | Yes  | No   | No   |
| 50th-Percentile Queue Length [veh/ln] | 0.84  | 0.51  | 0.08 | 0.16 | 0.14 | 0.01 |
| 50th-Percentile Queue Length [ft/ln]  | 20.98 | 12.72 | 1.92 | 4.06 | 3.47 | 0.28 |
| 95th-Percentile Queue Length [veh/ln] | 1.51  | 0.92  | 0.14 | 0.29 | 0.25 | 0.02 |
| 95th-Percentile Queue Length [ft/ln]  | 37.77 | 22.90 | 3.45 | 7.31 | 6.25 | 0.50 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |      |      |      |
|---------------------------------|-------|-------|------|------|------|------|
| d_M, Delay for Movement [s/veh] | 31.00 | 29.13 | 2.32 | 1.68 | 1.61 | 1.24 |
| Movement LOS                    | C     | C     | A    | A    | A    | A    |
| d_A, Approach Delay [s/veh]     | 30.28 |       | 1.77 |      | 1.58 |      |
| Approach LOS                    | C     |       | A    |      | A    |      |
| d_I, Intersection Delay [s/veh] | 6.12  |       |      |      |      |      |
| Intersection LOS                | A     |       |      |      |      |      |
| Intersection V/C                | 0.174 |       |      |      |      |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.032 | 2.115 | 2.115 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 533   | 1200  | 1200  |
| d_b, Bicycle Delay [s]                                   | 16.14 | 4.81  | 4.81  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 2.010 | 1.926 |
| Bicycle LOS  | A     | B     | A     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 18.1  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.366 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|------------------------------|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound  |        |        | Eastbound           |        |        | Westbound       |        |        |
| Lane Configuration           | ⇐⇐⇐             |        |        | ⇐⇐⇐         |        |        | ⇐⇐⇐                 |        |        | ⇐⇐⇐             |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left        | Thru   | Right  | Left                | Thru   | Right  | Left            | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00       | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1           | 0      | 1      | 2                   | 0      | 1      | 1               | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00          | 100.00 | 250.00 | 280.00      | 100.00 | 190.00 | 350.00              | 100.00 | 300.00 | 265.00          | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00        | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00       |        |        | 35.00               |        |        | 30.00           |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00        |        |        | 0.00                |        |        | 0.00            |        |        |
| Curb Present                 | Yes             |        |        | Yes         |        |        | Yes                 |        |        | Yes             |        |        |
| Crosswalk                    | No              |        |        | No          |        |        | Yes                 |        |        | Yes             |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Base Volume Input [veh/h]                   | 56              | 186    | 8      | 24          | 295    | 19     | 26                  | 32     | 78     | 20              | 29     | 42     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328      | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 114             | 378    | 16     | 49          | 600    | 39     | 53                  | 65     | 159    | 41              | 59     | 85     |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500      | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 30              | 99     | 4      | 13          | 158    | 10     | 14                  | 17     | 42     | 11              | 16     | 22     |
| Total Analysis Volume [veh/h]               | 120             | 398    | 17     | 52          | 632    | 41     | 56                  | 68     | 167    | 43              | 62     | 89     |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No              |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 16      | 36      | 0       | 10      | 30      | 0       | 52       | 14      | 0       | 10      | 14      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C    | R    | L     | C    | R    |
|---|-------|-------|-------|-------|-------|-------|-------|------|------|-------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60    | 60    | 60    | 60    | 60   | 60   | 60    | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 0.00  | 4.00 | 4.00 | 4.00  | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 2.00  | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00 | 2.00 | 2.00  | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 6     | 16    | 16    | 23    | 15    | 15    | 0     | 29   | 29   | 29    | 29   | 29   |
| g / C, Green / Cycle                    | 0.11  | 0.27  | 0.27  | 0.39  | 0.25  | 0.25  | 0.00  | 0.48 | 0.48 | 0.48  | 0.48 | 0.48 |
| (v / s)_i Volume / Saturation Flow Rate | 0.09  | 0.12  | 0.01  | 0.05  | 0.20  | 0.03  | 0.06  | 0.04 | 0.12 | 0.04  | 0.02 | 0.06 |
| s, saturation flow rate [veh/h]         | 1402  | 3204  | 1431  | 1041  | 3204  | 1431  | 902   | 1683 | 1431 | 1199  | 3204 | 1431 |
| c, Capacity [veh/h]                     | 307   | 874   | 390   | 490   | 796   | 355   | 120   | 803  | 683  | 622   | 1530 | 683  |
| d1, Uniform Delay [s]                   | 12.13 | 18.17 | 16.10 | 11.90 | 21.17 | 17.50 | 30.08 | 8.56 | 9.30 | 10.55 | 8.38 | 8.76 |
| k, delay calibration                    | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.50  | 0.50 | 0.50 | 0.50  | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.81  | 0.37  | 0.05  | 0.09  | 1.85  | 0.14  | 12.57 | 0.21 | 0.85 | 0.21  | 0.05 | 0.39 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 |
| Rp, 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 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |        |       |       |       |       |       |      |       |
|---------------------------------------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|------|-------|
| X, volume / capacity                  | 0.39  | 0.46  | 0.04  | 0.11  | 0.79   | 0.12  | 0.47  | 0.08  | 0.24  | 0.07  | 0.04 | 0.13  |
| d, Delay for Lane Group [s/veh]       | 12.94 | 18.54 | 16.15 | 11.99 | 23.02  | 17.64 | 42.65 | 8.77  | 10.15 | 10.76 | 8.43 | 9.16  |
| Lane Group LOS                        | B     | B     | B     | B     | C      | B     | D     | A     | B     | B     | A    | A     |
| Critical Lane Group                   | Yes   | No    | No    | No    | Yes    | No    | No    | No    | Yes   | No    | No   | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.99  | 2.10  | 0.16  | 0.39  | 3.92   | 0.41  | 0.61  | 0.44  | 1.22  | 0.34  | 0.19 | 0.63  |
| 50th-Percentile Queue Length [ft/ln]  | 24.75 | 52.46 | 4.01  | 9.86  | 98.09  | 10.32 | 15.36 | 11.06 | 30.46 | 8.51  | 4.86 | 15.67 |
| 95th-Percentile Queue Length [veh/ln] | 1.78  | 3.78  | 0.29  | 0.71  | 7.06   | 0.74  | 1.11  | 0.80  | 2.19  | 0.61  | 0.35 | 1.13  |
| 95th-Percentile Queue Length [ft/ln]  | 44.55 | 94.43 | 7.22  | 17.75 | 176.56 | 18.58 | 27.64 | 19.91 | 54.83 | 15.31 | 8.75 | 28.21 |

**Movement, Approach, & Intersection Results**

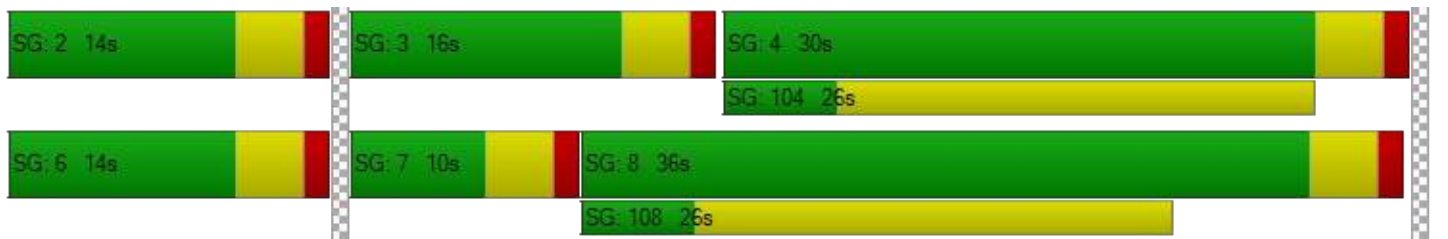
|                                 |       |       |       |       |       |       |       |      |       |       |      |      |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|------|
| d_M, Delay for Movement [s/veh] | 12.94 | 18.54 | 16.15 | 11.99 | 23.02 | 17.64 | 42.65 | 8.77 | 10.15 | 10.76 | 8.43 | 9.16 |
| Movement LOS                    | B     | B     | B     | B     | C     | B     | D     | A    | B     | B     | A    | A    |
| d_A, Approach Delay [s/veh]     | 17.21 |       |       | 21.93 |       |       | 16.08 |      |       | 9.28  |      |      |
| Approach LOS                    | B     |       |       | C     |       |       | B     |      |       | A     |      |      |
| d_I, Intersection Delay [s/veh] | 18.10 |       |       |       |       |       |       |      |       |       |      |      |
| Intersection LOS                | B     |       |       |       |       |       |       |      |       |       |      |      |
| Intersection V/C                | 0.366 |       |       |       |       |       |       |      |       |       |      |      |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 21.72 |  |  | 21.72 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.535 |  |  | 2.368 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 1065  |  |  | 865   |  |  | 333   |  |  | 333   |  |  |
| d_b, Bicycle Delay [s]                                   | 6.56  |  |  | 9.67  |  |  | 20.87 |  |  | 20.87 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 2.001 |  |  | 2.158 |  |  | 2.040 |  |  | 1.720 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | B     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |





**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 22.8  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.536 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | New Meridian Rd   |        |        | US 24   |        |        | US 24   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 2      | 2   | 0      | 1      | 2   | 0      | 1      |
| Entry Pocket Length [ft]     | 350.00  | 100.00 | 343.00 | 200.00  | 100.00 | 220.00 | 350.00  | 100.00 | 350.00 | 390.00  | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 55.00   |        |        | 55.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 5               | 214    | 52     | 19              | 123    | 306    | 74     | 382    | 0      | 66     | 744    | 1      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 10              | 435    | 106    | 39              | 250    | 622    | 150    | 777    | 0      | 134    | 1512   | 2      |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 3               | 114    | 28     | 10              | 66     | 164    | 39     | 204    | 0      | 35     | 398    | 1      |
| Total Analysis Volume [veh/h]               | 11              | 458    | 112    | 41              | 263    | 655    | 158    | 818    | 0      | 141    | 1592   | 2      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 90                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 26      | 0       | 9       | 26      | 0       | 10      | 45      | 0       | 10      | 45      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R    | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| C, Cycle Length [s]                     | 90    | 90    | 90    | 90    | 90    | 90    | 90   | 90    | 90    | 90    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00 | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 36    | 29    | 36    | 31    | 46    | 37    | 37   | 46    | 37    | 37    |
| g / C, Green / Cycle                    | 0.40  | 0.32  | 0.40  | 0.34  | 0.51  | 0.41  | 0.41 | 0.51  | 0.41  | 0.41  |
| (v / s)_i Volume / Saturation Flow Rate | 0.01  | 0.14  | 0.04  | 0.08  | 0.17  | 0.18  | 0.00 | 0.10  | 0.35  | 0.00  |
| s, saturation flow rate [veh/h]         | 1059  | 3204  | 952   | 3204  | 951   | 4584  | 1431 | 1463  | 4584  | 1431  |
| c, Capacity [veh/h]                     | 488   | 1032  | 408   | 1103  | 449   | 1873  | 584  | 730   | 1870  | 584   |
| d1, Uniform Delay [s]                   | 16.30 | 24.18 | 17.03 | 21.12 | 18.13 | 19.20 | 0.00 | 12.43 | 24.22 | 15.83 |
| k, delay calibration                    | 0.11  | 0.50  | 0.50  | 0.50  | 0.11  | 0.11  | 0.11 | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.02  | 1.38  | 0.49  | 0.51  | 0.47  | 0.16  | 0.00 | 0.13  | 1.17  | 0.00  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |       |        |      |       |        |       |
|---------------------------------------|-------|--------|-------|-------|-------|--------|------|-------|--------|-------|
| X, volume / capacity                  | 0.02  | 0.44   | 0.10  | 0.24  | 0.35  | 0.44   | 0.00 | 0.19  | 0.85   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 16.31 | 25.56  | 17.53 | 21.63 | 18.60 | 19.36  | 0.00 | 12.56 | 25.39  | 15.83 |
| Lane Group LOS                        | B     | C      | B     | C     | B     | B      | A    | B     | C      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No    | Yes   | No     | No   | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.13  | 3.90   | 0.55  | 1.98  | 0.72  | 3.60   | 0.00 | 0.63  | 8.97   | 0.02  |
| 50th-Percentile Queue Length [ft/ln]  | 3.34  | 97.43  | 13.83 | 49.54 | 17.99 | 90.03  | 0.00 | 15.63 | 224.19 | 0.55  |
| 95th-Percentile Queue Length [veh/ln] | 0.24  | 7.02   | 1.00  | 3.57  | 1.29  | 6.48   | 0.00 | 1.13  | 13.88  | 0.04  |
| 95th-Percentile Queue Length [ft/ln]  | 6.01  | 175.38 | 24.90 | 89.17 | 32.37 | 162.05 | 0.00 | 28.14 | 346.96 | 0.99  |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |      |       |       |      |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 16.31 | 25.56 | 0.00 | 17.53 | 21.63 | 0.00 | 18.60 | 19.36 | 0.00 | 12.56 | 25.39 | 15.83 |
| Movement LOS                    | B     | C     |      | B     | C     |      | B     | B     | A    | B     | C     | B     |
| d_A, Approach Delay [s/veh]     | 25.35 |       |      | 21.08 |       |      | 19.24 |       |      | 24.33 |       |       |
| Approach LOS                    | C     |       |      | C     |       |      | B     |       |      | C     |       |       |
| d_I, Intersection Delay [s/veh] | 22.76 |       |      |       |       |      |       |       |      |       |       |       |
| Intersection LOS                | C     |       |      |       |       |      |       |       |      |       |       |       |
| Intersection V/C                | 0.536 |       |      |       |       |      |       |       |      |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 36.49 | 36.49 | 36.49 | 36.49 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.706 | 2.842 | 3.435 | 3.452 |
| Crosswalk LOS  | B     | C     | C     | C     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 488   | 488   | 910   | 910   |
| d_b, Bicycle Delay [s]                                   | 25.73 | 25.73 | 13.37 | 13.37 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.947 | 1.810 | 2.096 | 2.514 |
| Bicycle LOS  | A     | A     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 205.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | F     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 1.151 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           |                |        |        |                |        |        |            |        |        |            |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 150.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Input [veh/h]                   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 2.0328         | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 169            | 79     | 26     | 130            | 20     | 209    | 183        | 2958   | 215    | 24         | 2155   | 85     |
| Peak Hour Factor                            | 0.9500         | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 44             | 21     | 7      | 34             | 5      | 55     | 48         | 778    | 57     | 6          | 567    | 22     |
| Total Analysis Volume [veh/h]               | 178            | 83     | 27     | 137            | 21     | 220    | 193        | 3114   | 226    | 25         | 2268   | 89     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 180                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 3        | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 45       | 118     | 0       | 9       | 82      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0        | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C      | R     | L     | C      | R     |
|---|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|
| C, Cycle Length [s]                     | 180   | 180   | 180   | 180   | 180   | 180   | 180    | 180   | 180   | 180    | 180   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00   | 4.00  | 4.00  | 4.00   | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.00   | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00   | 2.00  | 0.00  | 2.00   | 2.00  |
| g_i, Effective Green Time [s]           | 49    | 49    | 49    | 49    | 49    | 24    | 116    | 116   | 123   | 95     | 95    |
| g / C, Green / Cycle                    | 0.27  | 0.27  | 0.27  | 0.27  | 0.27  | 0.13  | 0.64   | 0.64  | 0.68  | 0.53   | 0.53  |
| (v / s)_i Volume / Saturation Flow Rate | 0.17  | 0.05  | 0.02  | 0.12  | 0.16  | 0.12  | 0.97   | 0.16  | 0.19  | 0.71   | 0.06  |
| s, saturation flow rate [veh/h]         | 1025  | 1683  | 1431  | 1183  | 1507  | 1603  | 3204   | 1431  | 133   | 3204   | 1431  |
| c, Capacity [veh/h]                     | 164   | 456   | 388   | 302   | 409   | 211   | 2058   | 919   | 108   | 1700   | 759   |
| d1, Uniform Delay [s]                   | 81.71 | 50.26 | 48.70 | 61.61 | 56.88 | 77.11 | 32.19  | 13.68 | 47.46 | 42.24  | 21.15 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.11  | 0.30   | 0.11  | 0.11  | 0.23   | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00   | 1.00  |
| d2, Incremental Delay [s]               | 94.25 | 0.87  | 0.35  | 4.83  | 6.12  | 14.65 | 232.50 | 0.14  | 1.07  | 152.36 | 0.07  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.00   | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00   | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00   | 1.00  |

**Lane Group Results**

|                                       |        |        |       |        |        |        |         |        |       |         |       |
|---------------------------------------|--------|--------|-------|--------|--------|--------|---------|--------|-------|---------|-------|
| X, volume / capacity                  | 1.08   | 0.18   | 0.07  | 0.45   | 0.59   | 0.91   | 1.51    | 0.25   | 0.23  | 1.33    | 0.12  |
| d, Delay for Lane Group [s/veh]       | 175.96 | 51.14  | 49.05 | 66.45  | 63.00  | 91.77  | 264.69  | 13.82  | 48.53 | 194.61  | 21.22 |
| Lane Group LOS                        | F      | D      | D     | E      | E      | F      | F       | B      | D     | F       | C     |
| Critical Lane Group                   | Yes    | No     | No    | No     | No     | No     | Yes     | No     | Yes   | No      | No    |
| 50th-Percentile Queue Length [veh/ln] | 12.00  | 3.02   | 0.95  | 5.98   | 10.31  | 9.50   | 106.37  | 3.76   | 0.33  | 71.22   | 1.86  |
| 50th-Percentile Queue Length [ft/ln]  | 300.06 | 75.46  | 23.85 | 149.59 | 257.84 | 237.50 | 2659.16 | 94.02  | 8.28  | 1780.46 | 46.57 |
| 95th-Percentile Queue Length [veh/ln] | 18.50  | 5.43   | 1.72  | 10.00  | 15.58  | 14.55  | 163.12  | 6.77   | 0.60  | 104.09  | 3.35  |
| 95th-Percentile Queue Length [ft/ln]  | 462.38 | 135.83 | 42.92 | 249.88 | 389.51 | 363.87 | 4078.05 | 169.24 | 14.91 | 2602.15 | 83.82 |

**Movement, Approach, & Intersection Results**

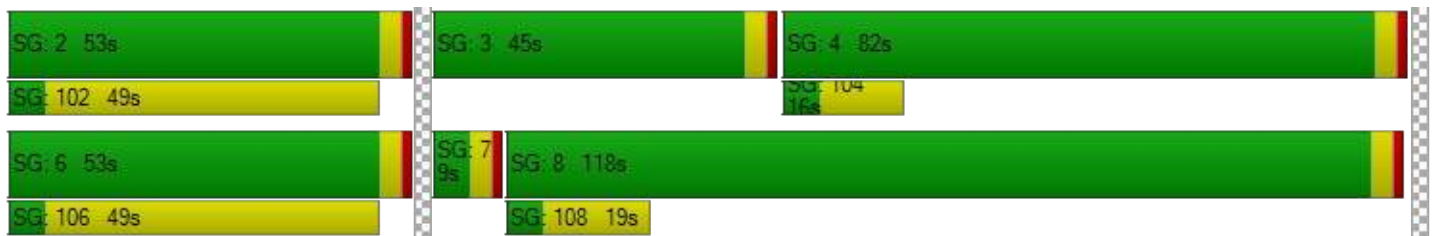
|                                 |        |       |       |       |       |       |        |        |       |        |        |       |
|---------------------------------|--------|-------|-------|-------|-------|-------|--------|--------|-------|--------|--------|-------|
| d_M, Delay for Movement [s/veh] | 175.96 | 51.14 | 49.05 | 66.45 | 63.00 | 63.00 | 91.77  | 264.69 | 13.82 | 48.53  | 194.61 | 21.22 |
| Movement LOS                    | F      | D     | D     | E     | E     | E     | F      | F      | B     | D      | F      | C     |
| d_A, Approach Delay [s/veh]     | 128.09 |       |       | 64.25 |       |       | 239.19 |        |       | 186.59 |        |       |
| Approach LOS                    | F      |       |       | E     |       |       | F      |        |       | F      |        |       |
| d_I, Intersection Delay [s/veh] | 205.25 |       |       |       |       |       |        |        |       |        |        |       |
| Intersection LOS                | F      |       |       |       |       |       |        |        |       |        |        |       |
| Intersection V/C                | 1.151  |       |       |       |       |       |        |        |       |        |        |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 81.21 | 81.21 | 81.21 | 81.21 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.347 | 2.215 | 4.464 | 4.268 |
| Crosswalk LOS  | B     | B     | E     | E     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 545   | 545   | 1267  | 867   |
| d_b, Bicycle Delay [s]                                   | 47.65 | 47.65 | 12.09 | 28.88 |
| I_b,int, Bicycle LOS Score for Intersection              | 2.035 | 2.183 | 4.474 | 3.525 |
| Bicycle LOS  | B     | B     | E     | D     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 15.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.051 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | ↵              |        |        | ↵                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 8               | 7      | 24     | 9               | 4      | 2      | 0              | 72     | 13     | 34                  | 108    | 6      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 16              | 14     | 49     | 18              | 8      | 4      | 0              | 146    | 26     | 69                  | 220    | 12     |
| Peak Hour Factor                        | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 4               | 4      | 13     | 5               | 2      | 1      | 0              | 38     | 7      | 18                  | 58     | 3      |
| Total Analysis Volume [veh/h]           | 17              | 15     | 52     | 19              | 8      | 4      | 0              | 154    | 27     | 73                  | 232    | 13     |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.04  | 0.04  | 0.06  | 0.05  | 0.02  | 0.00  | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 14.61 | 14.60 | 10.03 | 15.43 | 14.47 | 10.22 | 7.73 | 0.00 | 0.00 | 7.72 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | B     | C     | B     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.47  | 0.47  | 0.47  | 0.24  | 0.24  | 0.24  | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 11.77 | 11.77 | 11.77 | 6.11  | 6.11  | 6.11  | 0.00 | 0.00 | 0.00 | 4.14 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 11.77 |       |       | 14.51 |       |       | 0.00 |      |      | 1.77 |      |      |
| Approach LOS                          | B     |       |       | B     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 3.26  |       |       |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | C     |       |       |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 15.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.067 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | +                   |        |        | +                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 4                       | 0      | 16     | 12                      | 0      | 2      | 2                   | 83     | 3      | 13                  | 161    | 25     |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328                  | 2.0328 | 2.0328 | 2.0328                  | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 8                       | 0      | 33     | 24                      | 0      | 4      | 4                   | 169    | 6      | 26                  | 327    | 51     |
| Peak Hour Factor                        | 0.9500                  | 0.9500 | 0.9500 | 0.9500                  | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 2                       | 0      | 9      | 6                       | 0      | 1      | 1                   | 44     | 2      | 7                   | 86     | 13     |
| Total Analysis Volume [veh/h]           | 8                       | 0      | 35     | 25                      | 0      | 4      | 4                   | 178    | 6      | 27                  | 344    | 54     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.02  | 0.00  | 0.04 | 0.07  | 0.00  | 0.01  | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 14.48 | 14.71 | 9.51 | 15.43 | 14.80 | 11.05 | 8.11 | 0.00 | 0.00 | 7.64 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | C     | B     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.19  | 0.19  | 0.19 | 0.24  | 0.24  | 0.24  | 0.01 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 4.86  | 4.86  | 4.86 | 5.91  | 5.91  | 5.91  | 0.26 | 0.00 | 0.00 | 1.48 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 10.43 |       |      | 14.83 |       |       | 0.17 |      |      | 0.49 |      |      |
| Approach LOS                          | B     |       |      | B     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 1.63  |       |      |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | C     |       |      |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 11.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.290 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 63                | 35     | 21                  | 91     | 162                 | 27     |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 2.0328            | 2.0328 | 2.0328              | 2.0328 | 2.0328              | 2.0328 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 128               | 71     | 43                  | 185    | 329                 | 55     |
| Peak Hour Factor                            | 0.9500            | 0.9500 | 0.9500              | 0.9500 | 0.9500              | 0.9500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 34                | 19     | 11                  | 49     | 87                  | 14     |
| Total Analysis Volume [veh/h]               | 135               | 75     | 45                  | 195    | 346                 | 58     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 26         | 0          | 0          | 34         | 34         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | R     | L     | C    | C    | R    |
|---|-------|-------|-------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00  | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 22    | 22    | 30    | 30   | 30   | 30   |
| g / C, Green / Cycle                    | 0.37  | 0.37  | 0.50  | 0.50 | 0.50 | 0.50 |
| (v / s)_i Volume / Saturation Flow Rate | 0.08  | 0.05  | 0.05  | 0.12 | 0.21 | 0.04 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 931   | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 588   | 525   | 434   | 841  | 841  | 715  |
| d1, Uniform Delay [s]                   | 13.14 | 12.70 | 13.85 | 8.48 | 9.44 | 7.82 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.91  | 0.57  | 0.48  | 0.64 | 1.49 | 0.22 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |        |       |
|---------------------------------------|-------|-------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.23  | 0.14  | 0.10  | 0.23  | 0.41   | 0.08  |
| d, Delay for Lane Group [s/veh]       | 14.05 | 13.27 | 14.32 | 9.13  | 10.93  | 8.04  |
| Lane Group LOS                        | B     | B     | B     | A     | B      | A     |
| Critical Lane Group                   | Yes   | No    | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 1.25  | 0.67  | 0.43  | 1.30  | 2.62   | 0.36  |
| 50th-Percentile Queue Length [ft/ln]  | 31.15 | 16.81 | 10.82 | 32.56 | 65.55  | 9.00  |
| 95th-Percentile Queue Length [veh/ln] | 2.24  | 1.21  | 0.78  | 2.34  | 4.72   | 0.65  |
| 95th-Percentile Queue Length [ft/ln]  | 56.08 | 30.26 | 19.48 | 58.61 | 117.98 | 16.19 |

**Movement, Approach, & Intersection Results**

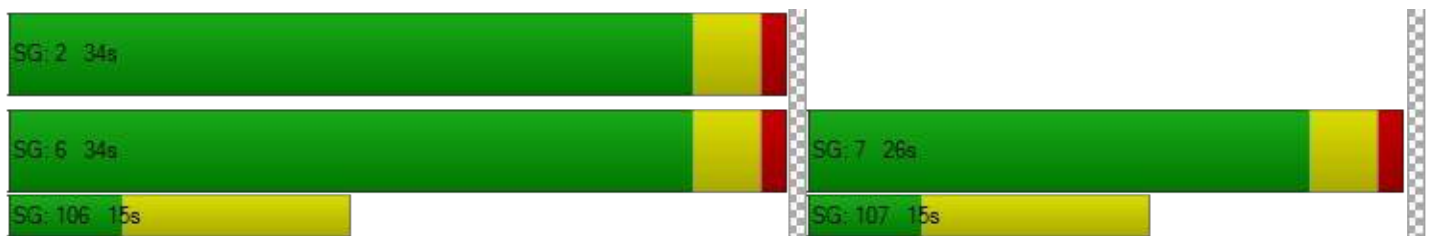
|                                 |       |       |       |      |       |      |
|---------------------------------|-------|-------|-------|------|-------|------|
| d_M, Delay for Movement [s/veh] | 14.05 | 13.27 | 14.32 | 9.13 | 10.93 | 8.04 |
| Movement LOS                    | B     | B     | B     | A    | B     | A    |
| d_A, Approach Delay [s/veh]     | 13.77 |       | 10.10 |      | 10.51 |      |
| Approach LOS                    | B     |       | B     |      | B     |      |
| d_I, Intersection Delay [s/veh] | 11.20 |       |       |      |       |      |
| Intersection LOS                | B     |       |       |      |       |      |
| Intersection V/C                | 0.290 |       |       |      |       |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.104 | 2.171 | 2.199 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 733   | 1000  | 1000  |
| d_b, Bicycle Delay [s]                                   | 12.03 | 7.50  | 7.50  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 1.956 | 2.226 |
| Bicycle LOS  | A     | A     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 20.7  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.491 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound  |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           |                 |        |        |             |        |        |                     |        |        |                     |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left        | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00       | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1           | 0      | 1      | 2                   | 0      | 1      | 1                   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00          | 100.00 | 250.00 | 280.00      | 100.00 | 190.00 | 350.00              | 100.00 | 300.00 | 265.00              | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00        | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00       |        |        | 35.00               |        |        | 30.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00        |        |        | 0.00                |        |        | 0.00                |        |        |
| Curb Present                 | Yes             |        |        | Yes         |        |        | Yes                 |        |        | Yes                 |        |        |
| Crosswalk                    | No              |        |        | No          |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]                   | 80              | 386    | 33     | 72          | 187    | 47     | 43                  | 32     | 69     | 22                  | 47     | 98     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328      | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 163             | 785    | 67     | 146         | 380    | 96     | 87                  | 65     | 140    | 45                  | 96     | 199    |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500      | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 43              | 207    | 18     | 38          | 100    | 25     | 23                  | 17     | 37     | 12                  | 25     | 52     |
| Total Analysis Volume [veh/h]               | 172             | 826    | 71     | 154         | 400    | 101    | 92                  | 68     | 147    | 47                  | 101    | 209    |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No                  |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 70                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 9       | 30      | 0       | 11       | 22      | 0       | 9       | 20      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 35    | 26    | 26    | 35    | 26    | 26    | 7     | 18    | 18    | 27    | 16    | 16    |
| g / C, Green / Cycle                    | 0.50  | 0.37  | 0.37  | 0.50  | 0.37  | 0.37  | 0.10  | 0.26  | 0.26  | 0.39  | 0.23  | 0.23  |
| (v / s)_i Volume / Saturation Flow Rate | 0.17  | 0.26  | 0.05  | 0.19  | 0.12  | 0.07  | 0.03  | 0.04  | 0.10  | 0.04  | 0.03  | 0.15  |
| s, saturation flow rate [veh/h]         | 1029  | 3204  | 1431  | 798   | 3204  | 1431  | 3113  | 1683  | 1431  | 1304  | 3204  | 1431  |
| c, Capacity [veh/h]                     | 584   | 1190  | 531   | 417   | 1190  | 531   | 311   | 433   | 368   | 614   | 732   | 327   |
| d1, Uniform Delay [s]                   | 10.15 | 18.63 | 14.55 | 11.93 | 15.80 | 14.88 | 29.21 | 20.13 | 21.53 | 13.64 | 21.51 | 24.39 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 1.28  | 3.35  | 0.52  | 2.50  | 0.76  | 0.79  | 2.41  | 0.77  | 3.22  | 0.24  | 0.39  | 9.23  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |       |       |       |       |       |       |       |        |
|---------------------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| X, volume / capacity                  | 0.29  | 0.69   | 0.13  | 0.37  | 0.34  | 0.19  | 0.30  | 0.16  | 0.40  | 0.08  | 0.14  | 0.64   |
| d, Delay for Lane Group [s/veh]       | 11.43 | 21.98  | 15.07 | 14.43 | 16.56 | 15.67 | 31.62 | 20.90 | 24.74 | 13.88 | 21.90 | 33.62  |
| Lane Group LOS                        | B     | C      | B     | B     | B     | B     | C     | C     | C     | B     | C     | C      |
| Critical Lane Group                   | No    | Yes    | No    | Yes   | No    | No    | Yes   | No    | No    | No    | No    | Yes    |
| 50th-Percentile Queue Length [veh/ln] | 1.48  | 5.62   | 0.76  | 1.42  | 2.21  | 1.11  | 0.79  | 0.90  | 2.19  | 0.48  | 0.67  | 3.80   |
| 50th-Percentile Queue Length [ft/ln]  | 37.05 | 140.59 | 18.94 | 35.40 | 55.21 | 27.68 | 19.65 | 22.40 | 54.64 | 12.00 | 16.79 | 95.09  |
| 95th-Percentile Queue Length [veh/ln] | 2.67  | 9.51   | 1.36  | 2.55  | 3.98  | 1.99  | 1.42  | 1.61  | 3.93  | 0.86  | 1.21  | 6.85   |
| 95th-Percentile Queue Length [ft/ln]  | 66.68 | 237.81 | 34.10 | 63.73 | 99.38 | 49.83 | 35.38 | 40.33 | 98.36 | 21.60 | 30.23 | 171.16 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 11.43 | 21.98 | 15.07 | 14.43 | 16.56 | 15.67 | 31.62 | 20.90 | 24.74 | 13.88 | 21.90 | 33.62 |
| Movement LOS                    | B     | C     | B     | B     | B     | B     | C     | C     | C     | B     | C     | C     |
| d_A, Approach Delay [s/veh]     | 19.82 |       |       | 15.92 |       |       | 25.95 |       |       | 27.71 |       |       |
| Approach LOS                    | B     |       |       | B     |       |       | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 20.72 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.491 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 26.58 |  |  | 26.58 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.669 |  |  | 2.503 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 743   |  |  | 743   |  |  | 514   |  |  | 457   |  |  |
| d_b, Bicycle Delay [s]                                   | 13.83 |  |  | 13.83 |  |  | 19.31 |  |  | 20.83 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 2.442 |  |  | 2.100 |  |  | 2.066 |  |  | 1.854 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | B     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |





**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 30.0  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.685 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | New Meridian Rd   |        |        | US 24   |        |        | US 24   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 2      | 2   | 0      | 1      | 2   | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00  | 100.00 | 343.00 | 200.00  | 100.00 | 220.00 | 350.00  | 100.00 | 350.00 | 390.00  | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 55.00   |        |        | 55.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 2               | 339    | 68     | 36              | 259    | 144    | 293    | 768    | 1      | 184    | 496    | 2      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 4               | 689    | 138    | 73              | 526    | 293    | 596    | 1561   | 2      | 374    | 1008   | 4      |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 1               | 181    | 36     | 19              | 138    | 77     | 157    | 411    | 1      | 98     | 265    | 1      |
| Total Analysis Volume [veh/h]               | 4               | 725    | 145    | 77              | 554    | 308    | 627    | 1643   | 2      | 394    | 1061   | 4      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 90                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 14      | 27      | 0       | 9       | 22      | 0       | 13      | 45      | 0       | 9       | 41      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 90    | 90    | 90    | 90    | 90    | 90    | 90    | 90    | 90    | 90    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 32    | 23    | 32    | 18    | 50    | 41    | 41    | 50    | 37    | 37    |
| g / C, Green / Cycle                    | 0.36  | 0.26  | 0.36  | 0.20  | 0.56  | 0.46  | 0.46  | 0.56  | 0.41  | 0.41  |
| (v / s)_i Volume / Saturation Flow Rate | 0.00  | 0.23  | 0.09  | 0.17  | 0.44  | 0.36  | 0.00  | 0.44  | 0.23  | 0.00  |
| s, saturation flow rate [veh/h]         | 1082  | 3204  | 863   | 3204  | 1410  | 4584  | 1431  | 894   | 4584  | 1431  |
| c, Capacity [veh/h]                     | 372   | 819   | 280   | 641   | 768   | 2088  | 652   | 484   | 1885  | 588   |
| d1, Uniform Delay [s]                   | 20.00 | 32.23 | 22.05 | 34.82 | 15.21 | 20.79 | 13.36 | 18.61 | 20.30 | 15.65 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.05  | 13.46 | 2.43  | 14.48 | 9.39  | 3.08  | 0.01  | 13.99 | 1.22  | 0.02  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |        |        |        |       |        |        |       |
|---------------------------------------|-------|--------|-------|--------|--------|--------|-------|--------|--------|-------|
| X, volume / capacity                  | 0.01  | 0.89   | 0.28  | 0.86   | 0.82   | 0.79   | 0.00  | 0.81   | 0.56   | 0.01  |
| d, Delay for Lane Group [s/veh]       | 20.05 | 45.69  | 24.47 | 49.29  | 24.60  | 23.87  | 13.37 | 32.60  | 21.53  | 15.67 |
| Lane Group LOS                        | C     | D      | C     | D      | C      | C      | B     | C      | C      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No     | No     | Yes    | No    | Yes    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.06  | 8.79   | 1.24  | 6.94   | 3.78   | 8.78   | 0.02  | 2.54   | 5.14   | 0.05  |
| 50th-Percentile Queue Length [ft/ln]  | 1.44  | 219.82 | 31.00 | 173.62 | 94.62  | 219.54 | 0.52  | 63.47  | 128.44 | 1.16  |
| 95th-Percentile Queue Length [veh/ln] | 0.10  | 13.66  | 2.23  | 11.27  | 6.81   | 13.64  | 0.04  | 4.57   | 8.86   | 0.08  |
| 95th-Percentile Queue Length [ft/ln]  | 2.59  | 341.40 | 55.80 | 281.66 | 170.32 | 341.04 | 0.93  | 114.25 | 221.38 | 2.09  |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |      |       |       |       |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 20.05 | 45.69 | 0.00 | 24.47 | 49.29 | 0.00 | 24.60 | 23.87 | 13.37 | 32.60 | 21.53 | 15.67 |
| Movement LOS                    | C     | D     |      | C     | D     |      | C     | C     | B     | C     | C     | B     |
| d_A, Approach Delay [s/veh]     | 45.55 |       |      | 46.27 |       |      | 24.06 |       |       | 24.50 |       |       |
| Approach LOS                    | D     |       |      | D     |       |      | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 30.02 |       |      |       |       |      |       |       |       |       |       |       |
| Intersection LOS                | C     |       |      |       |       |      |       |       |       |       |       |       |
| Intersection V/C                | 0.685 |       |      |       |       |      |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 36.45 | 36.45 | 36.45 | 36.45 |
| I_p,int, Pedestrian LOS Score for Intersection           | 3.040 | 3.305 | 3.515 | 3.567 |
| Crosswalk LOS  | C     | C     | D     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 511   | 400   | 911   | 822   |
| d_b, Bicycle Delay [s]                                   | 24.94 | 28.80 | 13.34 | 15.61 |
| I_b,int, Bicycle LOS Score for Intersection              | 2.161 | 2.080 | 2.809 | 2.362 |
| Bicycle LOS  | B     | B     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 180.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | F     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 1.229 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           |                |        |        |                |        |        |            |        |        |            |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 450.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   |                |        |        |                |        |        |            |        |        |            |        |        |
| Base Volume Input [veh/h]                   | 127            | 21     | 4      | 37             | 17     | 111    | 42         | 728    | 53     | 13         | 1279   | 21     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 2.0328         | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 43             | 0      | 11     | 0              | 0      | 0      | 0          | 0      | 14     | 4          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 301            | 43     | 19     | 75             | 35     | 226    | 85         | 1480   | 122    | 30         | 2600   | 43     |
| Peak Hour Factor                            | 0.9500         | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 79             | 11     | 5      | 20             | 9      | 59     | 22         | 389    | 32     | 8          | 684    | 11     |
| Total Analysis Volume [veh/h]               | 317            | 45     | 20     | 79             | 37     | 238    | 89         | 1558   | 128    | 32         | 2737   | 45     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| Bicycle Volume [bicycles/h]                 |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 160                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 3        | 8       | 0       | 0       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | Lead     | -       | -       | -       | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 5        | 10      | 0       | 0       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 30       | 30      | 0       | 0       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 57      | 0       | 0       | 57      | 0       | 11       | 103     | 0       | 0       | 92      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0        | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         | No       | No      |         |         | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         | No       | No      |         |         | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         | No       | No      |         |         | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L      | C     | R     | L     | C     | L      | C     | R     | L     | C      | R     |
|---|--------|-------|-------|-------|-------|--------|-------|-------|-------|--------|-------|
| C, Cycle Length [s]                     | 160    | 160   | 160   | 160   | 160   | 160    | 160   | 160   | 160   | 160    | 160   |
| L, Total Lost Time per Cycle [s]        | 4.00   | 4.00  | 4.00  | 4.00  | 4.00  | 4.00   | 4.00  | 4.00  | 4.00  | 4.00   | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00   | 0.00  | 0.00  | 2.00  | 0.00  | 0.00   | 0.00  | 0.00  | 2.00  | 0.00   | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00   | 2.00  | 2.00  | 2.00  | 2.00  | 2.00   | 2.00  | 2.00  | 2.00  | 2.00   | 2.00  |
| g_i, Effective Green Time [s]           | 53     | 53    | 53    | 53    | 53    | 7      | 99    | 99    | 88    | 88     | 88    |
| g / C, Green / Cycle                    | 0.33   | 0.33  | 0.33  | 0.33  | 0.33  | 0.04   | 0.62  | 0.62  | 0.55  | 0.55   | 0.55  |
| (v / s)_i Volume / Saturation Flow Rate | 0.32   | 0.03  | 0.01  | 0.06  | 0.18  | 0.06   | 0.49  | 0.09  | 0.11  | 0.85   | 0.03  |
| s, saturation flow rate [veh/h]         | 994    | 1683  | 1431  | 1225  | 1518  | 1603   | 3204  | 1431  | 298   | 3204   | 1431  |
| c, Capacity [veh/h]                     | 220    | 559   | 476   | 418   | 505   | 70     | 1979  | 883   | 95    | 1759   | 785   |
| d1, Uniform Delay [s]                   | 68.80  | 36.63 | 36.16 | 41.39 | 43.54 | 76.50  | 22.77 | 12.85 | 62.19 | 36.09  | 16.81 |
| k, delay calibration                    | 0.50   | 0.50  | 0.50  | 0.50  | 0.50  | 0.11   | 0.11  | 0.11  | 0.11  | 0.31   | 0.11  |
| l, Upstream Filtering Factor            | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |
| d2, Incremental Delay [s]               | 222.76 | 0.28  | 0.17  | 1.00  | 4.18  | 143.24 | 0.72  | 0.07  | 2.08  | 252.11 | 0.03  |
| d3, Initial Queue Delay [s]             | 0.00   | 0.00  | 0.00  | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.00  | 0.00   | 0.00  |
| Rp, platoon ratio                       | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |
| PF, progression factor                  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  |

**Lane Group Results**

|                                       |        |       |       |        |        |        |        |       |       |         |       |
|---------------------------------------|--------|-------|-------|--------|--------|--------|--------|-------|-------|---------|-------|
| X, volume / capacity                  | 1.44   | 0.08  | 0.04  | 0.19   | 0.54   | 1.27   | 0.79   | 0.14  | 0.34  | 1.56    | 0.06  |
| d, Delay for Lane Group [s/veh]       | 291.57 | 36.91 | 36.32 | 42.40  | 47.72  | 219.74 | 23.49  | 12.92 | 64.27 | 288.20  | 16.84 |
| Lane Group LOS                        | F      | D     | D     | D      | D      | F      | C      | B     | E     | F       | B     |
| Critical Lane Group                   | Yes    | No    | No    | No     | No     | Yes    | No     | No    | No    | Yes     | No    |
| 50th-Percentile Queue Length [veh/ln] | 22.69  | 1.27  | 0.56  | 2.49   | 9.59   | 5.61   | 19.83  | 1.84  | 1.24  | 92.77   | 0.75  |
| 50th-Percentile Queue Length [ft/ln]  | 567.23 | 31.82 | 14.03 | 62.15  | 239.76 | 140.30 | 495.82 | 45.97 | 30.92 | 2319.33 | 18.76 |
| 95th-Percentile Queue Length [veh/ln] | 36.75  | 2.29  | 1.01  | 4.48   | 14.67  | 10.06  | 27.14  | 3.31  | 2.23  | 143.10  | 1.35  |
| 95th-Percentile Queue Length [ft/ln]  | 918.81 | 57.28 | 25.25 | 111.88 | 366.73 | 251.48 | 678.41 | 82.74 | 55.66 | 3577.54 | 33.76 |

**Movement, Approach, & Intersection Results**

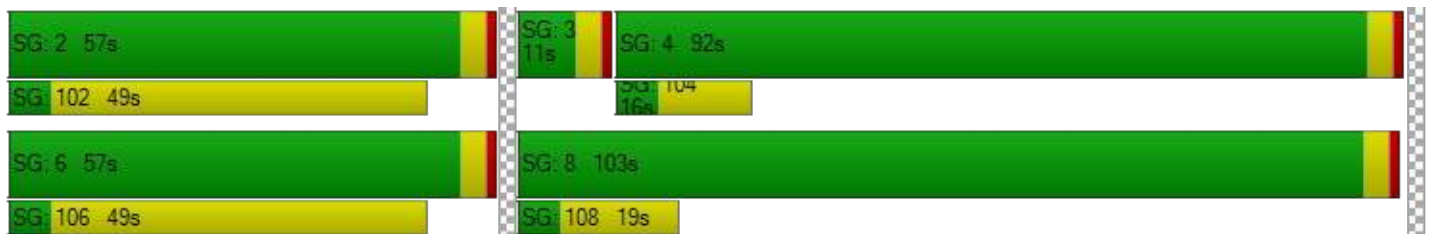
|                                 |        |       |       |       |       |       |        |       |       |        |        |       |
|---------------------------------|--------|-------|-------|-------|-------|-------|--------|-------|-------|--------|--------|-------|
| d_M, Delay for Movement [s/veh] | 291.57 | 36.91 | 36.32 | 42.40 | 47.72 | 47.72 | 219.74 | 23.49 | 12.92 | 64.27  | 288.20 | 16.84 |
| Movement LOS                    | F      | D     | D     | D     | D     | D     | F      | C     | B     | E      | F      | B     |
| d_A, Approach Delay [s/veh]     | 248.20 |       |       | 46.53 |       |       | 32.57  |       |       | 281.32 |        |       |
| Approach LOS                    | F      |       |       | D     |       |       | C      |       |       | F      |        |       |
| d_I, Intersection Delay [s/veh] | 180.42 |       |       |       |       |       |        |       |       |        |        |       |
| Intersection LOS                | F      |       |       |       |       |       |        |       |       |        |        |       |
| Intersection V/C                | 1.229  |       |       |       |       |       |        |       |       |        |        |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   |  |  | 9.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 71.25 |  |  | 71.25 |  |  | 71.25 |  |  | 71.25 |  |  |
| l_p,int, Pedestrian LOS Score for Intersection           | 2.370 |  |  | 2.142 |  |  | 4.367 |  |  | 3.876 |  |  |
| Crosswalk LOS  | B     |  |  | B     |  |  | E     |  |  | D     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 663   |  |  | 663   |  |  | 1238  |  |  | 1100  |  |  |
| d_b, Bicycle Delay [s]                                   | 35.78 |  |  | 35.78 |  |  | 11.63 |  |  | 16.20 |  |  |
| l_b,int, Bicycle LOS Score for Intersection              | 2.190 |  |  | 2.144 |  |  | 3.024 |  |  | 3.881 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | C     |  |  | D     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 17.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.054 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 15              | 3      | 41     | 8               | 6      | 1      | 1              | 48     | 5      | 21                  | 83     | 3      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 32              | 0      | 104    | 0               | 0      | 0      | 0              | 7      | 11     | 33                  | 22     | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 62              | 6      | 187    | 16              | 12     | 2      | 2              | 105    | 21     | 76                  | 191    | 6      |
| Peak Hour Factor                        | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 16              | 2      | 49     | 4               | 3      | 1      | 1              | 28     | 6      | 20                  | 50     | 2      |
| Total Analysis Volume [veh/h]           | 65              | 6      | 197    | 17              | 13     | 2      | 2              | 111    | 22     | 80                  | 201    | 6      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.14  | 0.01  | 0.21  | 0.05  | 0.03  | 0.00  | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 15.86 | 15.88 | 11.75 | 17.44 | 13.99 | 10.21 | 7.64 | 0.00 | 0.00 | 7.62 | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | C     | B     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 1.71  | 1.71  | 1.71  | 0.28  | 0.28  | 0.28  | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 42.68 | 42.68 | 42.68 | 7.01  | 7.01  | 7.01  | 0.11 | 0.00 | 0.00 | 4.37 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 12.84 |       |       | 15.59 |       |       | 0.11 |      |      | 2.13 |      |      |
| Approach LOS                          | B     |       |       | C     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 6.32  |       |       |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | C     |       |       |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 18.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.143 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | ↔                   |        |        | ↔                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 5                       | 1      | 20     | 20                      | 0      | 3      | 2                   | 86     | 2      | 6                   | 101    | 7      |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328                  | 2.0328 | 2.0328 | 2.0328                  | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 22                      | 0      | 56     | 0                       | 0      | 0      | 0                   | 104    | 7      | 22                  | 33     | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 32                      | 2      | 97     | 41                      | 0      | 6      | 4                   | 279    | 11     | 34                  | 238    | 14     |
| Peak Hour Factor                        | 0.9500                  | 0.9500 | 0.9500 | 0.9500                  | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 8                       | 1      | 26     | 11                      | 0      | 2      | 1                   | 73     | 3      | 9                   | 63     | 4      |
| Total Analysis Volume [veh/h]           | 34                      | 2      | 102    | 43                      | 0      | 6      | 4                   | 294    | 12     | 36                  | 251    | 15     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.09  | 0.01  | 0.14  | 0.14  | 0.00  | 0.01  | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 16.45 | 16.38 | 11.72 | 18.92 | 16.46 | 11.57 | 7.78 | 0.00 | 0.00 | 7.95 | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | C     | C     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.90  | 0.90  | 0.90  | 0.52  | 0.52  | 0.52  | 0.01 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 22.54 | 22.54 | 22.54 | 13.10 | 13.10 | 13.10 | 0.23 | 0.00 | 0.00 | 2.21 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 12.95 |       |       | 18.02 |       |       | 0.10 |      |      | 0.95 |      |      |
| Approach LOS                          | B     |       |       | C     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 3.74  |       |       |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | C     |       |       |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 11.1  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.254 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 26                | 16     | 18                  | 109    | 96                  | 8      |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 2.0328            | 2.0328 | 2.0328              | 2.0328 | 2.0328              | 2.0328 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 11     | 32                  | 128    | 44                  | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 53                | 44     | 69                  | 350    | 239                 | 16     |
| Peak Hour Factor                            | 0.9500            | 0.9500 | 0.9500              | 0.9500 | 0.9500              | 0.9500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 14                | 12     | 18                  | 92     | 63                  | 4      |
| Total Analysis Volume [veh/h]               | 56                | 46     | 73                  | 368    | 252                 | 17     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 26         | 0          | 0          | 34         | 34         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | R     | L     | C    | C    | R    |
|---|-------|-------|-------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00  | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 22    | 22    | 30    | 30   | 30   | 30   |
| g / C, Green / Cycle                    | 0.37  | 0.37  | 0.50  | 0.50 | 0.50 | 0.50 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03  | 0.03  | 0.07  | 0.22 | 0.15 | 0.01 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 1015  | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 588   | 525   | 504   | 841  | 841  | 715  |
| d1, Uniform Delay [s]                   | 12.47 | 12.43 | 12.48 | 9.60 | 8.82 | 7.59 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.32  | 0.33  | 0.60  | 1.65 | 0.91 | 0.06 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |        |       |      |
|---------------------------------------|-------|-------|-------|--------|-------|------|
| X, volume / capacity                  | 0.10  | 0.09  | 0.14  | 0.44   | 0.30  | 0.02 |
| d, Delay for Lane Group [s/veh]       | 12.79 | 12.76 | 13.09 | 11.25  | 9.73  | 7.65 |
| Lane Group LOS                        | B     | B     | B     | B      | A     | A    |
| Critical Lane Group                   | Yes   | No    | No    | Yes    | No    | No   |
| 50th-Percentile Queue Length [veh/ln] | 0.48  | 0.40  | 0.65  | 2.85   | 1.76  | 0.10 |
| 50th-Percentile Queue Length [ft/ln]  | 12.12 | 10.05 | 16.36 | 71.15  | 44.02 | 2.55 |
| 95th-Percentile Queue Length [veh/ln] | 0.87  | 0.72  | 1.18  | 5.12   | 3.17  | 0.18 |
| 95th-Percentile Queue Length [ft/ln]  | 21.81 | 18.08 | 29.45 | 128.06 | 79.24 | 4.59 |

**Movement, Approach, & Intersection Results**

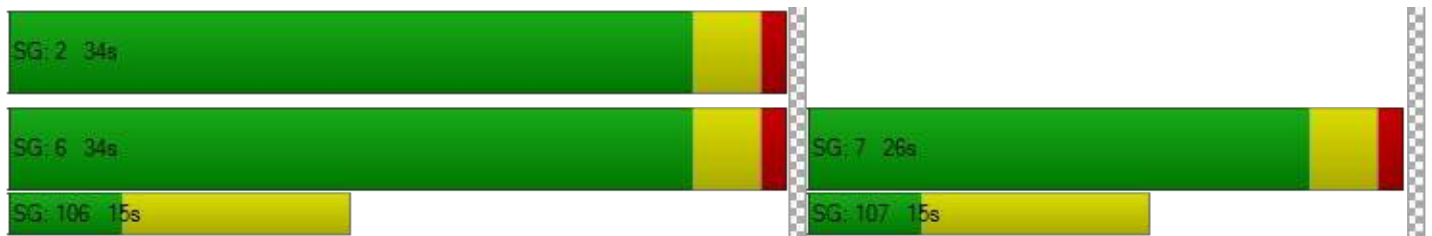
|                                 |       |       |       |       |      |      |
|---------------------------------|-------|-------|-------|-------|------|------|
| d_M, Delay for Movement [s/veh] | 12.79 | 12.76 | 13.09 | 11.25 | 9.73 | 7.65 |
| Movement LOS                    | B     | B     | B     | B     | A    | A    |
| d_A, Approach Delay [s/veh]     | 12.78 |       | 11.55 |       | 9.60 |      |
| Approach LOS                    | B     |       | B     |       | A    |      |
| d_I, Intersection Delay [s/veh] | 11.06 |       |       |       |      |      |
| Intersection LOS                | B     |       |       |       |      |      |
| Intersection V/C                | 0.254 |       |       |       |      |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.098 | 2.201 | 2.184 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 733   | 1000  | 1000  |
| d_b, Bicycle Delay [s]                                   | 12.03 | 7.50  | 7.50  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 2.287 | 2.003 |
| Bicycle LOS  | A     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 16.7  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.424 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | Meridian Rd   |        |        | Rolling Thunder Way   |        |        | Old Meridian Rd   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 1      | 2   | 0      | 1      | 1   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00  | 100.00 | 250.00 | 280.00  | 100.00 | 190.00 | 350.00  | 100.00 | 300.00 | 265.00  | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 35.00   |        |        | 30.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | No  |        |        | No  |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Base Volume Input [veh/h]                   | 56              | 186    | 8      | 24          | 295    | 19     | 26                  | 32     | 78     | 20              | 29     | 42     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328      | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Site-Generated Trips [veh/h]                | 22              | 0      | 0      | 0           | 0      | 11     | 32                  | 11     | 85     | 0               | 11     | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 136             | 378    | 16     | 49          | 600    | 50     | 85                  | 76     | 244    | 41              | 70     | 85     |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500      | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 36              | 99     | 4      | 13          | 158    | 13     | 22                  | 20     | 64     | 11              | 18     | 22     |
| Total Analysis Volume [veh/h]               | 143             | 398    | 17     | 52          | 632    | 53     | 89                  | 80     | 257    | 43              | 74     | 89     |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No              |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 9       | 30      | 0       | 54       | 21      | 0       | 11      | 21      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L    | C     | R    | L    | C     | R     | L     | C     | R     | L     | C     | R     |
|---|------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 60   | 60    | 60   | 60   | 60    | 60    | 60    | 60    | 60    | 60    | 60    | 60    |
| L, Total Lost Time per Cycle [s]        | 4.00 | 4.00  | 4.00 | 4.00 | 4.00  | 4.00  | 0.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00 | 0.00  | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00 | 2.00  | 2.00 | 0.00 | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 35   | 26    | 26   | 35   | 26    | 26    | 0     | 17    | 17    | 17    | 17    | 17    |
| g / C, Green / Cycle                    | 0.58 | 0.43  | 0.43 | 0.58 | 0.43  | 0.43  | 0.00  | 0.28  | 0.28  | 0.28  | 0.28  | 0.28  |
| (v / s)_i Volume / Saturation Flow Rate | 0.16 | 0.12  | 0.01 | 0.05 | 0.20  | 0.04  | 0.10  | 0.05  | 0.18  | 0.04  | 0.02  | 0.06  |
| s, saturation flow rate [veh/h]         | 893  | 3204  | 1431 | 1031 | 3204  | 1431  | 892   | 1683  | 1431  | 1186  | 3204  | 1431  |
| c, Capacity [veh/h]                     | 595  | 1389  | 620  | 703  | 1389  | 620   | 120   | 477   | 405   | 374   | 908   | 405   |
| d1, Uniform Delay [s]                   | 6.45 | 11.00 | 9.75 | 5.59 | 12.00 | 10.00 | 30.00 | 16.18 | 18.78 | 19.22 | 15.77 | 16.43 |
| k, delay calibration                    | 0.50 | 0.50  | 0.50 | 0.50 | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.96 | 0.52  | 0.08 | 0.20 | 1.08  | 0.27  | 33.44 | 0.76  | 7.37  | 0.62  | 0.18  | 1.25  |
| d3, Initial Queue Delay [s]             | 0.00 | 0.00  | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |       |      |       |        |       |       |       |        |       |       |       |
|---------------------------------------|-------|-------|------|-------|--------|-------|-------|-------|--------|-------|-------|-------|
| X, volume / capacity                  | 0.24  | 0.29  | 0.03 | 0.07  | 0.46   | 0.09  | 0.74  | 0.17  | 0.63   | 0.11  | 0.08  | 0.22  |
| d, Delay for Lane Group [s/veh]       | 7.40  | 11.52 | 9.83 | 5.79  | 13.08  | 10.28 | 63.44 | 16.94 | 26.15  | 19.84 | 15.95 | 17.68 |
| Lane Group LOS                        | A     | B     | A    | A     | B      | B     | E     | B     | C      | B     | B     | B     |
| Critical Lane Group                   | Yes   | No    | No   | No    | Yes    | No    | No    | No    | Yes    | No    | No    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.76  | 1.54  | 0.12 | 0.25  | 2.70   | 0.40  | 1.23  | 0.84  | 3.60   | 0.52  | 0.37  | 1.00  |
| 50th-Percentile Queue Length [ft/ln]  | 19.00 | 38.49 | 3.08 | 6.15  | 67.53  | 9.88  | 30.69 | 21.06 | 89.92  | 13.01 | 9.13  | 25.00 |
| 95th-Percentile Queue Length [veh/ln] | 1.37  | 2.77  | 0.22 | 0.44  | 4.86   | 0.71  | 2.21  | 1.52  | 6.47   | 0.94  | 0.66  | 1.80  |
| 95th-Percentile Queue Length [ft/ln]  | 34.19 | 69.27 | 5.54 | 11.07 | 121.55 | 17.79 | 55.24 | 37.92 | 161.85 | 23.42 | 16.44 | 45.00 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 7.40  | 11.52 | 9.83 | 5.79  | 13.08 | 10.28 | 63.44 | 16.94 | 26.15 | 19.84 | 15.95 | 17.68 |
| Movement LOS                    | A     | B     | A    | A     | B     | B     | E     | B     | C     | B     | B     | B     |
| d_A, Approach Delay [s/veh]     | 10.41 |       |      | 12.36 |       |       | 32.21 |       |       | 17.51 |       |       |
| Approach LOS                    | B     |       |      | B     |       |       | C     |       |       | B     |       |       |
| d_I, Intersection Delay [s/veh] | 16.74 |       |      |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | B     |       |      |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.424 |       |      |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 21.68 |  |  | 21.68 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.660 |  |  | 2.384 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 867   |  |  | 867   |  |  | 567   |  |  | 567   |  |  |
| d_b, Bicycle Delay [s]                                   | 9.63  |  |  | 9.63  |  |  | 15.41 |  |  | 15.41 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 2.020 |  |  | 2.168 |  |  | 2.263 |  |  | 1.730 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | B     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |





**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 24.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.551 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | New Meridian Rd   |        |        | US 24   |        |        | US 24   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 2      | 2   | 0      | 1      | 2   | 0      | 1      |
| Entry Pocket Length [ft]     | 350.00  | 100.00 | 343.00 | 200.00  | 100.00 | 220.00 | 350.00  | 100.00 | 350.00 | 390.00  | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 55.00   |        |        | 55.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 5               | 214    | 52     | 19              | 123    | 306    | 74     | 382    | 0      | 66     | 744    | 1      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 11     | 0      | 21              | 32     | 32     | 11     | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 10              | 446    | 106    | 60              | 282    | 654    | 161    | 777    | 0      | 134    | 1512   | 2      |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 3               | 117    | 28     | 16              | 74     | 172    | 42     | 204    | 0      | 35     | 398    | 1      |
| Total Analysis Volume [veh/h]               | 11              | 469    | 112    | 63              | 297    | 688    | 169    | 818    | 0      | 141    | 1592   | 2      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 90                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 9       | 30      | 0       | 9       | 42      | 0       | 9       | 42      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R    | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| C, Cycle Length [s]                     | 90    | 90    | 90    | 90    | 90    | 90    | 90   | 90    | 90    | 90    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00 | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 35    | 26    | 35    | 26    | 47    | 38    | 38   | 47    | 38    | 38    |
| g / C, Green / Cycle                    | 0.39  | 0.29  | 0.39  | 0.29  | 0.52  | 0.42  | 0.42 | 0.52  | 0.42  | 0.42  |
| (v / s)_i Volume / Saturation Flow Rate | 0.01  | 0.15  | 0.06  | 0.09  | 0.18  | 0.18  | 0.00 | 0.10  | 0.35  | 0.00  |
| s, saturation flow rate [veh/h]         | 1100  | 3204  | 986   | 3204  | 940   | 4584  | 1431 | 1458  | 4584  | 1431  |
| c, Capacity [veh/h]                     | 473   | 926   | 398   | 926   | 468   | 1936  | 604  | 764   | 1936  | 604   |
| d1, Uniform Delay [s]                   | 17.16 | 26.66 | 18.22 | 25.08 | 16.95 | 18.28 | 0.00 | 11.57 | 23.01 | 15.04 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50 | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.09  | 1.98  | 0.85  | 0.92  | 2.16  | 0.68  | 0.00 | 0.53  | 4.10  | 0.01  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |        |       |        |      |       |        |       |
|---------------------------------------|-------|--------|-------|--------|-------|--------|------|-------|--------|-------|
| X, volume / capacity                  | 0.02  | 0.51   | 0.16  | 0.32   | 0.36  | 0.42   | 0.00 | 0.18  | 0.82   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 17.25 | 28.64  | 19.07 | 26.00  | 19.11 | 18.96  | 0.00 | 12.10 | 27.11  | 15.05 |
| Lane Group LOS                        | B     | C      | B     | C      | B     | B      | A    | B     | C      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No     | Yes   | No     | No   | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.15  | 4.28   | 0.89  | 2.52   | 0.85  | 3.58   | 0.00 | 0.64  | 9.21   | 0.02  |
| 50th-Percentile Queue Length [ft/ln]  | 3.67  | 107.09 | 22.30 | 62.96  | 21.21 | 89.53  | 0.00 | 16.04 | 230.22 | 0.56  |
| 95th-Percentile Queue Length [veh/ln] | 0.26  | 7.68   | 1.61  | 4.53   | 1.53  | 6.45   | 0.00 | 1.15  | 14.19  | 0.04  |
| 95th-Percentile Queue Length [ft/ln]  | 6.60  | 191.95 | 40.13 | 113.32 | 38.17 | 161.15 | 0.00 | 28.87 | 354.64 | 1.01  |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |      |       |       |      |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 17.25 | 28.64 | 0.00 | 19.07 | 26.00 | 0.00 | 19.11 | 18.96 | 0.00 | 12.10 | 27.11 | 15.05 |
| Movement LOS                    | B     | C     |      | B     | C     |      | B     | B     | A    | B     | C     | B     |
| d_A, Approach Delay [s/veh]     | 28.38 |       |      | 24.78 |       |      | 18.99 |       |      | 25.88 |       |       |
| Approach LOS                    | C     |       |      | C     |       |      | B     |       |      | C     |       |       |
| d_I, Intersection Delay [s/veh] | 24.19 |       |      |       |       |      |       |       |      |       |       |       |
| Intersection LOS                | C     |       |      |       |       |      |       |       |      |       |       |       |
| Intersection V/C                | 0.551 |       |      |       |       |      |       |       |      |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 36.45 | 36.45 | 36.45 | 36.45 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.718 | 2.865 | 3.436 | 3.463 |
| Crosswalk LOS  | B     | C     | C     | C     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 578   | 578   | 844   | 844   |
| d_b, Bicycle Delay [s]                                   | 22.76 | 22.76 | 15.02 | 15.02 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.956 | 1.857 | 2.102 | 2.514 |
| Bicycle LOS  | A     | A     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 189.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | F     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 1.175 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           |                |        |        |                |        |        |            |        |        |            |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 1              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 150.00         | 100.00 | 200.00 | 120.00         | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 1      | 0          | 0      | 1      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 980.00 | 0.00       | 0.00   | 950.00 |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   |                |        |        |                |        |        |            |        |        |            |        |        |
| Base Volume Input [veh/h]                   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 2.0328         | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 29             | 0      | 7      | 0              | 0      | 0      | 0          | 0      | 48     | 12         | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 198            | 79     | 33     | 130            | 20     | 209    | 183        | 2958   | 263    | 36         | 2155   | 85     |
| Peak Hour Factor                            | 0.9500         | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 52             | 21     | 9      | 34             | 5      | 55     | 48         | 778    | 69     | 9          | 567    | 22     |
| Total Analysis Volume [veh/h]               | 208            | 83     | 35     | 137            | 21     | 220    | 193        | 3114   | 277    | 38         | 2268   | 89     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| Bicycle Volume [bicycles/h]                 |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 180                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 3        | 8       | 0       | 0       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | Lead     | -       | -       | -       | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 5        | 10      | 0       | 0       | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 30       | 30      | 0       | 0       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     |
| Split [s]                    | 0       | 54      | 0       | 0       | 54      | 0       | 33       | 126     | 0       | 0       | 93      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0        | 14      | 0       | 0       | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         | No       | No      |         |         | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         | No       | No      |         |         | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         | No       | No      |         |         | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L      | C     | R     | L     | C     | L     | C      | R     | L      | C      | R     |
|---|--------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|
| C, Cycle Length [s]                     | 180    | 180   | 180   | 180   | 180   | 180   | 180    | 180   | 180    | 180    | 180   |
| L, Total Lost Time per Cycle [s]        | 4.00   | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00   | 4.00  | 4.00   | 4.00   | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00   | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  | 0.00   | 0.00  | 2.00   | 0.00   | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00   | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00   | 2.00  | 2.00   | 2.00   | 2.00  |
| g_i, Effective Green Time [s]           | 50     | 50    | 50    | 50    | 50    | 24    | 122    | 122   | 95     | 95     | 95    |
| g / C, Green / Cycle                    | 0.28   | 0.28  | 0.28  | 0.28  | 0.28  | 0.13  | 0.68   | 0.68  | 0.53   | 0.53   | 0.53  |
| (v / s)_i Volume / Saturation Flow Rate | 0.20   | 0.05  | 0.02  | 0.12  | 0.16  | 0.12  | 0.97   | 0.19  | 0.60   | 0.71   | 0.06  |
| s, saturation flow rate [veh/h]         | 1025   | 1683  | 1431  | 1183  | 1507  | 1603  | 3204   | 1431  | 64     | 3204   | 1431  |
| c, Capacity [veh/h]                     | 171    | 466   | 396   | 309   | 417   | 210   | 2175   | 971   | 40     | 1684   | 752   |
| d1, Uniform Delay [s]                   | 81.16  | 49.50 | 48.24 | 60.70 | 56.01 | 77.26 | 28.90  | 11.51 | 89.96  | 42.67  | 21.58 |
| k, delay calibration                    | 0.50   | 0.50  | 0.50  | 0.50  | 0.50  | 0.25  | 0.27   | 0.11  | 0.50   | 0.23   | 0.11  |
| l, Upstream Filtering Factor            | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00   | 1.00   | 1.00  |
| d2, Incremental Delay [s]               | 138.93 | 0.84  | 0.44  | 4.54  | 5.73  | 27.61 | 195.73 | 0.16  | 127.76 | 157.80 | 0.07  |
| d3, Initial Queue Delay [s]             | 0.00   | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  |
| Rp, platoon ratio                       | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00   | 1.00   | 1.00  |
| PF, progression factor                  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00   | 1.00   | 1.00  |

**Lane Group Results**

|                                       |        |        |       |        |        |        |         |        |        |         |       |
|---------------------------------------|--------|--------|-------|--------|--------|--------|---------|--------|--------|---------|-------|
| X, volume / capacity                  | 1.22   | 0.18   | 0.09  | 0.44   | 0.58   | 0.92   | 1.43    | 0.29   | 0.95   | 1.35    | 0.12  |
| d, Delay for Lane Group [s/veh]       | 220.09 | 50.33  | 48.68 | 65.25  | 61.74  | 104.87 | 224.62  | 11.67  | 217.73 | 200.47  | 21.65 |
| Lane Group LOS                        | F      | D      | D     | E      | E      | F      | F       | B      | F      | F       | C     |
| Critical Lane Group                   | Yes    | No     | No    | No     | No     | No     | Yes     | No     | No     | No      | No    |
| 50th-Percentile Queue Length [veh/ln] | 14.61  | 2.99   | 1.23  | 5.92   | 10.20  | 10.26  | 99.94   | 4.18   | 3.17   | 71.92   | 1.89  |
| 50th-Percentile Queue Length [ft/ln]  | 365.33 | 74.79  | 30.83 | 148.08 | 255.06 | 256.46 | 2498.48 | 104.61 | 79.18  | 1798.07 | 47.14 |
| 95th-Percentile Queue Length [veh/ln] | 23.15  | 5.38   | 2.22  | 9.91   | 15.44  | 15.51  | 150.69  | 7.53   | 5.70   | 105.47  | 3.39  |
| 95th-Percentile Queue Length [ft/ln]  | 578.87 | 134.61 | 55.50 | 247.87 | 386.02 | 387.77 | 3767.20 | 188.29 | 142.52 | 2636.75 | 84.84 |

**Movement, Approach, & Intersection Results**

|                                 |        |       |       |       |       |       |        |        |       |        |        |       |
|---------------------------------|--------|-------|-------|-------|-------|-------|--------|--------|-------|--------|--------|-------|
| d_M, Delay for Movement [s/veh] | 220.09 | 50.33 | 48.68 | 65.25 | 61.74 | 61.74 | 104.87 | 224.62 | 11.67 | 217.73 | 200.47 | 21.65 |
| Movement LOS                    | F      | D     | D     | E     | E     | E     | F      | F      | B     | F      | F      | C     |
| d_A, Approach Delay [s/veh]     | 158.46 |       |       | 63.01 |       |       | 201.72 |        |       | 194.10 |        |       |
| Approach LOS                    | F      |       |       | E     |       |       | F      |        |       | F      |        |       |
| d_I, Intersection Delay [s/veh] | 189.03 |       |       |       |       |       |        |        |       |        |        |       |
| Intersection LOS                | F      |       |       |       |       |       |        |        |       |        |        |       |
| Intersection V/C                | 1.175  |       |       |       |       |       |        |        |       |        |        |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 81.21 | 81.21 | 81.21 | 81.21 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.407 | 2.215 | 4.527 | 4.273 |
| Crosswalk LOS  | B     | B     | E     | E     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 556   | 556   | 1356  | 989   |
| d_b, Bicycle Delay [s]                                   | 46.93 | 46.93 | 9.33  | 22.99 |
| I_b,int, Bicycle LOS Score for Intersection              | 2.098 | 2.183 | 4.516 | 3.535 |
| Bicycle LOS  | B     | B     | E     | D     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 26.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.100 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 8               | 7      | 24     | 9               | 4      | 2      | 0              | 72     | 13     | 34                  | 108    | 6      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 22              | 0      | 63     | 0               | 0      | 0      | 0              | 24     | 36     | 108                 | 14     | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 38              | 14     | 112    | 18              | 8      | 4      | 0              | 170    | 62     | 177                 | 234    | 12     |
| Peak Hour Factor                        | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 10              | 4      | 29     | 5               | 2      | 1      | 0              | 45     | 16     | 47                  | 62     | 3      |
| Total Analysis Volume [veh/h]           | 40              | 15     | 118    | 19              | 8      | 4      | 0              | 179    | 65     | 186                 | 246    | 13     |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |       |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|-------|------|------|
| V/C, Movement V/C Ratio               | 0.16  | 0.06  | 0.14  | 0.10  | 0.03  | 0.01  | 0.00 | 0.00 | 0.00 | 0.14  | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 23.88 | 23.18 | 13.59 | 26.57 | 21.97 | 12.11 | 7.76 | 0.00 | 0.00 | 8.17  | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | D     | C     | B     | A    | A    | A    | A     | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 1.64  | 1.64  | 1.64  | 0.47  | 0.47  | 0.47  | 0.00 | 0.00 | 0.00 | 0.49  | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 40.98 | 40.98 | 40.98 | 11.74 | 11.74 | 11.74 | 0.00 | 0.00 | 0.00 | 12.24 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 16.80 |       |       | 23.51 |       |       | 0.00 |      |      | 3.41  |      |      |
| Approach LOS                          | C     |       |       | C     |       |       | A    |      |      | A     |      |      |
| d_I, Intersection Delay [s/veh]       | 5.77  |       |       |       |       |       |      |      |      |       |      |      |
| Intersection LOS                      | D     |       |       |       |       |       |      |      |      |       |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 27.1  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.134 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | ←↑                  |        |        | ←↑                  |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 4                       | 0      | 16     | 12                      | 0      | 2      | 2                   | 83     | 3      | 13                  | 161    | 25     |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328                  | 2.0328 | 2.0328 | 2.0328                  | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 14                      | 0      | 42     | 0                       | 0      | 0      | 0                   | 63     | 24     | 72                  | 108    | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 22                      | 0      | 75     | 24                      | 0      | 4      | 4                   | 232    | 30     | 98                  | 435    | 51     |
| Peak Hour Factor                        | 0.9500                  | 0.9500 | 0.9500 | 0.9500                  | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 6                       | 0      | 20     | 6                       | 0      | 1      | 1                   | 61     | 8      | 26                  | 114    | 13     |
| Total Analysis Volume [veh/h]           | 23                      | 0      | 79     | 25                      | 0      | 4      | 4                   | 244    | 32     | 103                 | 458    | 54     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.10  | 0.00  | 0.10  | 0.13  | 0.00  | 0.01  | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 23.30 | 22.74 | 11.51 | 27.08 | 23.45 | 14.02 | 8.43 | 0.00 | 0.00 | 8.04 | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | D     | C     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.77  | 0.77  | 0.77  | 0.48  | 0.48  | 0.48  | 0.01 | 0.00 | 0.00 | 0.26 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 19.20 | 19.20 | 19.20 | 12.00 | 12.00 | 12.00 | 0.29 | 0.00 | 0.00 | 6.51 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 14.17 |       |       | 25.27 |       |       | 0.12 |      |      | 1.35 |      |      |
| Approach LOS                          | B     |       |       | D     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 2.96  |       |       |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | D     |       |       |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 11.5  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.380 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 63                | 35     | 21                  | 91     | 162                 | 27     |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 2.0328            | 2.0328 | 2.0328              | 2.0328 | 2.0328              | 2.0328 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 36     | 21                  | 84     | 144                 | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 128               | 107    | 64                  | 269    | 473                 | 55     |
| Peak Hour Factor                            | 0.9500            | 0.9500 | 0.9500              | 0.9500 | 0.9500              | 0.9500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 34                | 28     | 17                  | 71     | 124                 | 14     |
| Total Analysis Volume [veh/h]               | 135               | 113    | 67                  | 283    | 498                 | 58     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 23         | 0          | 0          | 37         | 37         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | R     | L     | C    | C    | R    |
|---|-------|-------|-------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00  | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 19    | 19    | 33    | 33   | 33   | 33   |
| g / C, Green / Cycle                    | 0.32  | 0.32  | 0.55  | 0.55 | 0.55 | 0.55 |
| (v / s)_i Volume / Saturation Flow Rate | 0.08  | 0.08  | 0.08  | 0.17 | 0.30 | 0.04 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 810   | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 508   | 453   | 385   | 926  | 926  | 787  |
| d1, Uniform Delay [s]                   | 15.30 | 15.21 | 14.79 | 7.30 | 8.63 | 6.33 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 1.28  | 1.32  | 0.98  | 0.85 | 2.24 | 0.18 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |        |       |
|---------------------------------------|-------|-------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.27  | 0.25  | 0.17  | 0.31  | 0.54   | 0.07  |
| d, Delay for Lane Group [s/veh]       | 16.58 | 16.53 | 15.77 | 8.16  | 10.87  | 6.51  |
| Lane Group LOS                        | B     | B     | B     | A     | B      | A     |
| Critical Lane Group                   | Yes   | No    | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 1.40  | 1.18  | 0.70  | 1.71  | 3.68   | 0.31  |
| 50th-Percentile Queue Length [ft/ln]  | 35.02 | 29.53 | 17.41 | 42.82 | 92.01  | 7.63  |
| 95th-Percentile Queue Length [veh/ln] | 2.52  | 2.13  | 1.25  | 3.08  | 6.62   | 0.55  |
| 95th-Percentile Queue Length [ft/ln]  | 63.04 | 53.15 | 31.34 | 77.08 | 165.62 | 13.73 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |      |       |      |
|---------------------------------|-------|-------|-------|------|-------|------|
| d_M, Delay for Movement [s/veh] | 16.58 | 16.53 | 15.77 | 8.16 | 10.87 | 6.51 |
| Movement LOS                    | B     | B     | B     | A    | B     | A    |
| d_A, Approach Delay [s/veh]     | 16.55 |       | 9.61  |      | 10.41 |      |
| Approach LOS                    | B     |       | A     |      | B     |      |
| d_I, Intersection Delay [s/veh] | 11.49 |       |       |      |       |      |
| Intersection LOS                | B     |       |       |      |       |      |
| Intersection V/C                | 0.380 |       |       |      |       |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.158 | 2.285 | 2.290 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 633   | 1100  | 1100  |
| d_b, Bicycle Delay [s]                                   | 14.01 | 6.08  | 6.08  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 2.137 | 2.477 |
| Bicycle LOS  | A     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 21.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.498 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | Meridian Rd   |        |        | Rolling Thunder Way   |        |        | Rolling Thunder Way   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 1      | 2   | 0      | 1      | 1   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00  | 100.00 | 250.00 | 280.00  | 100.00 | 190.00 | 350.00  | 100.00 | 300.00 | 265.00  | 100.00 | 120.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 35.00   |        |        | 30.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | No  |        |        | No  |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]                   | 80              | 386    | 33     | 72          | 187    | 47     | 43                  | 32     | 69     | 22                  | 47     | 98     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328      | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]                | 72              | 0      | 0      | 0           | 0      | 36     | 21                  | 7      | 56     | 0                   | 36     | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 235             | 785    | 67     | 146         | 380    | 132    | 108                 | 72     | 196    | 45                  | 132    | 199    |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500      | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 62              | 207    | 18     | 38          | 100    | 35     | 28                  | 19     | 52     | 12                  | 35     | 52     |
| Total Analysis Volume [veh/h]               | 247             | 826    | 71     | 154         | 400    | 139    | 114                 | 76     | 206    | 47                  | 139    | 209    |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No                  |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 70                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 9       | 30      | 0       | 11       | 22      | 0       | 9       | 20      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 35    | 26    | 26    | 35    | 26    | 26    | 7     | 18    | 18    | 27    | 16    | 16    |
| g / C, Green / Cycle                    | 0.50  | 0.37  | 0.37  | 0.50  | 0.37  | 0.37  | 0.10  | 0.26  | 0.26  | 0.39  | 0.23  | 0.23  |
| (v / s)_i Volume / Saturation Flow Rate | 0.24  | 0.26  | 0.05  | 0.19  | 0.12  | 0.10  | 0.04  | 0.05  | 0.14  | 0.04  | 0.04  | 0.15  |
| s, saturation flow rate [veh/h]         | 1029  | 3204  | 1431  | 798   | 3204  | 1431  | 3113  | 1683  | 1431  | 1298  | 3204  | 1431  |
| c, Capacity [veh/h]                     | 584   | 1190  | 531   | 417   | 1190  | 531   | 311   | 433   | 368   | 607   | 732   | 327   |
| d1, Uniform Delay [s]                   | 10.73 | 18.63 | 14.55 | 11.93 | 15.80 | 15.32 | 29.43 | 20.23 | 22.56 | 13.65 | 21.77 | 24.39 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 2.24  | 3.35  | 0.52  | 2.50  | 0.76  | 1.20  | 3.30  | 0.88  | 6.04  | 0.25  | 0.57  | 9.23  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |        |       |       |       |       |       |       |        |       |       |        |
|---------------------------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|
| X, volume / capacity                  | 0.42   | 0.69   | 0.13  | 0.37  | 0.34  | 0.26  | 0.37  | 0.18  | 0.56   | 0.08  | 0.19  | 0.64   |
| d, Delay for Lane Group [s/veh]       | 12.97  | 21.98  | 15.07 | 14.43 | 16.56 | 16.51 | 32.73 | 21.11 | 28.61  | 13.90 | 22.35 | 33.62  |
| Lane Group LOS                        | B      | C      | B     | B     | B     | B     | C     | C     | C      | B     | C     | C      |
| Critical Lane Group                   | No     | Yes    | No    | Yes   | No    | No    | Yes   | No    | No     | No    | No    | Yes    |
| 50th-Percentile Queue Length [veh/ln] | 2.29   | 5.62   | 0.76  | 1.42  | 2.21  | 1.58  | 0.99  | 1.01  | 3.35   | 0.48  | 0.94  | 3.80   |
| 50th-Percentile Queue Length [ft/ln]  | 57.35  | 140.59 | 18.94 | 35.40 | 55.21 | 39.48 | 24.85 | 25.21 | 83.63  | 12.02 | 23.47 | 95.09  |
| 95th-Percentile Queue Length [veh/ln] | 4.13   | 9.51   | 1.36  | 2.55  | 3.98  | 2.84  | 1.79  | 1.82  | 6.02   | 0.87  | 1.69  | 6.85   |
| 95th-Percentile Queue Length [ft/ln]  | 103.23 | 237.81 | 34.10 | 63.73 | 99.38 | 71.07 | 44.74 | 45.38 | 150.53 | 21.63 | 42.24 | 171.16 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 12.97 | 21.98 | 15.07 | 14.43 | 16.56 | 16.51 | 32.73 | 21.11 | 28.61 | 13.90 | 22.35 | 33.62 |
| Movement LOS                    | B     | C     | B     | B     | B     | B     | C     | C     | C     | B     | C     | C     |
| d_A, Approach Delay [s/veh]     | 19.61 |       |       | 16.08 |       |       | 28.36 |       |       | 27.31 |       |       |
| Approach LOS                    | B     |       |       | B     |       |       | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 21.15 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.498 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 26.58 |  |  | 26.58 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.757 |  |  | 2.512 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | C     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 743   |  |  | 743   |  |  | 514   |  |  | 457   |  |  |
| d_b, Bicycle Delay [s]                                   | 13.83 |  |  | 13.83 |  |  | 19.31 |  |  | 20.83 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 2.503 |  |  | 2.131 |  |  | 2.213 |  |  | 1.885 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | B     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |





**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 33.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.708 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | New Meridian Rd   |        |        | US 24   |        |        | US 24   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 2      | 2   | 0      | 1      | 2   | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00  | 100.00 | 343.00 | 200.00  | 100.00 | 220.00 | 350.00  | 100.00 | 350.00 | 390.00  | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 55.00   |        |        | 55.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 2               | 339    | 68     | 36              | 259    | 144    | 293    | 768    | 1      | 184    | 496    | 2      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 36     | 0      | 14              | 21     | 21     | 36     | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 4               | 725    | 138    | 87              | 547    | 314    | 632    | 1561   | 2      | 374    | 1008   | 4      |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 1               | 191    | 36     | 23              | 144    | 83     | 166    | 411    | 1      | 98     | 265    | 1      |
| Total Analysis Volume [veh/h]               | 4               | 763    | 145    | 92              | 576    | 331    | 665    | 1643   | 2      | 394    | 1061   | 4      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 100                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 35      | 0       | 9       | 35      | 0       | 15      | 44      | 0       | 12      | 41      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 100   | 100   | 100   | 100   | 100   | 100   | 100   | 100   | 100   | 100   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 40    | 31    | 40    | 31    | 52    | 40    | 40    | 52    | 37    | 37    |
| g / C, Green / Cycle                    | 0.40  | 0.31  | 0.40  | 0.31  | 0.52  | 0.40  | 0.40  | 0.52  | 0.37  | 0.37  |
| (v / s)_i Volume / Saturation Flow Rate | 0.00  | 0.24  | 0.11  | 0.18  | 0.45  | 0.36  | 0.00  | 0.38  | 0.23  | 0.00  |
| s, saturation flow rate [veh/h]         | 902   | 3204  | 803   | 3204  | 1475  | 4584  | 1431  | 1029  | 4584  | 1431  |
| c, Capacity [veh/h]                     | 351   | 993   | 289   | 993   | 725   | 1834  | 572   | 491   | 1696  | 529   |
| d1, Uniform Delay [s]                   | 19.19 | 31.24 | 21.82 | 29.02 | 19.51 | 28.05 | 18.03 | 21.52 | 25.82 | 19.90 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.06  | 5.69  | 2.89  | 2.47  | 18.41 | 7.31  | 0.01  | 13.03 | 1.75  | 0.03  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |        |        |        |       |        |        |       |
|---------------------------------------|-------|--------|-------|--------|--------|--------|-------|--------|--------|-------|
| X, volume / capacity                  | 0.01  | 0.77   | 0.32  | 0.58   | 0.92   | 0.90   | 0.00  | 0.80   | 0.63   | 0.01  |
| d, Delay for Lane Group [s/veh]       | 19.25 | 36.94  | 24.71 | 31.49  | 37.92  | 35.37  | 18.04 | 34.55  | 27.57  | 19.93 |
| Lane Group LOS                        | B     | D      | C     | C      | D      | D      | B     | C      | C      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No     | No     | Yes    | No    | Yes    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.06  | 8.82   | 1.55  | 5.98   | 5.79   | 12.04  | 0.03  | 2.99   | 6.48   | 0.06  |
| 50th-Percentile Queue Length [ft/ln]  | 1.50  | 220.62 | 38.87 | 149.45 | 144.78 | 300.89 | 0.68  | 74.71  | 161.95 | 1.45  |
| 95th-Percentile Queue Length [veh/ln] | 0.11  | 13.70  | 2.80  | 9.99   | 9.74   | 17.73  | 0.05  | 5.38   | 10.65  | 0.10  |
| 95th-Percentile Queue Length [ft/ln]  | 2.71  | 342.42 | 69.97 | 249.70 | 243.44 | 443.13 | 1.22  | 134.48 | 266.31 | 2.60  |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |      |       |       |       |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 19.25 | 36.94 | 0.00 | 24.71 | 31.49 | 0.00 | 37.92 | 35.37 | 18.04 | 34.55 | 27.57 | 19.93 |
| Movement LOS                    | B     | D     |      | C     | C     |      | D     | D     | B     | C     | C     | B     |
| d_A, Approach Delay [s/veh]     | 36.84 |       |      | 30.56 |       |      | 36.08 |       |       | 29.44 |       |       |
| Approach LOS                    | D     |       |      | C     |       |      | D     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 33.62 |       |      |       |       |      |       |       |       |       |       |       |
| Intersection LOS                | C     |       |      |       |       |      |       |       |       |       |       |       |
| Intersection V/C                | 0.708 |       |      |       |       |      |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 41.41 | 41.41 | 41.41 | 41.41 |
| I_p,int, Pedestrian LOS Score for Intersection           | 3.025 | 3.311 | 3.578 | 3.587 |
| Crosswalk LOS  | C     | C     | D     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 620   | 620   | 800   | 740   |
| d_b, Bicycle Delay [s]                                   | 23.81 | 23.81 | 18.00 | 19.85 |
| I_b,int, Bicycle LOS Score for Intersection              | 2.192 | 2.111 | 2.830 | 2.362 |
| Bicycle LOS  | B     | B     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 36.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.777 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           | ↵↵↵            |        |        | ↵↵↵            |        |        | ↵↵↵↵↵      |        |        | ↵↵↵↵↵      |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 2              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 380.00         | 100.00 | 200.00 | 95.00          | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 0.00   | 0.00       | 0.00   | 0.00   |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   |                |        |        |                |        |        |            |        |        |            |        |        |
| Base Volume Input [veh/h]                   | 127            | 21     | 4      | 37             | 17     | 111    | 42         | 728    | 53     | 13         | 1279   | 21     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 2.0328         | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 258            | 43     | 8      | 75             | 35     | 226    | 85         | 1480   | 108    | 26         | 2600   | 43     |
| Peak Hour Factor                            | 0.9500         | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 68             | 11     | 2      | 20             | 9      | 59     | 22         | 389    | 28     | 7          | 684    | 11     |
| Total Analysis Volume [veh/h]               | 272            | 45     | 8      | 79             | 37     | 238    | 89         | 1558   | 114    | 27         | 2737   | 45     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 130                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|----------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 3        | 8       | 0       | 7        | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |          |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | Lead     | -       | -       | Lead     | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 5        | 10      | 0       | 5        | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 30       | 30      | 0       | 30       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 12       | 68      | 0       | 9        | 65      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0        | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0        | 14      | 0       | 0        | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |          | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 51    | 51    | 51    | 51    | 51    | 8     | 64    | 64    | 3     | 59    | 59    |
| g / C, Green / Cycle                    | 0.39  | 0.39  | 0.39  | 0.39  | 0.39  | 0.06  | 0.49  | 0.49  | 0.02  | 0.46  | 0.46  |
| (v / s)_i Volume / Saturation Flow Rate | 0.27  | 0.03  | 0.01  | 0.03  | 0.18  | 0.06  | 0.25  | 0.08  | 0.02  | 0.45  | 0.03  |
| s, saturation flow rate [veh/h]         | 994   | 1683  | 1431  | 2378  | 1518  | 1603  | 6113  | 1431  | 1603  | 6113  | 1431  |
| c, Capacity [veh/h]                     | 304   | 657   | 559   | 924   | 593   | 99    | 3015  | 706   | 38    | 2785  | 652   |
| d1, Uniform Delay [s]                   | 50.17 | 24.81 | 24.28 | 27.08 | 29.49 | 60.61 | 22.40 | 18.14 | 62.98 | 34.88 | 19.88 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 30.73 | 0.20  | 0.05  | 0.18  | 2.60  | 23.67 | 0.14  | 0.11  | 20.77 | 4.87  | 0.04  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |       |       |       |        |        |        |       |       |        |       |
|---------------------------------------|--------|-------|-------|-------|--------|--------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.90   | 0.07  | 0.01  | 0.09  | 0.46   | 0.90   | 0.52   | 0.16  | 0.70  | 0.98   | 0.07  |
| d, Delay for Lane Group [s/veh]       | 80.90  | 25.01 | 24.33 | 27.26 | 32.09  | 84.28  | 22.54  | 18.24 | 83.76 | 39.75  | 19.93 |
| Lane Group LOS                        | F      | C     | C     | C     | C      | F      | C      | B     | F     | D      | B     |
| Critical Lane Group                   | Yes    | No    | No    | No    | No     | Yes    | No     | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 11.57  | 0.91  | 0.16  | 0.84  | 6.86   | 3.46   | 7.48   | 1.79  | 1.08  | 20.29  | 0.73  |
| 50th-Percentile Queue Length [ft/ln]  | 289.22 | 22.79 | 3.99  | 21.06 | 171.43 | 86.58  | 187.07 | 44.68 | 26.98 | 507.29 | 18.34 |
| 95th-Percentile Queue Length [veh/ln] | 17.15  | 1.64  | 0.29  | 1.52  | 11.15  | 6.23   | 11.97  | 3.22  | 1.94  | 27.68  | 1.32  |
| 95th-Percentile Queue Length [ft/ln]  | 428.67 | 41.02 | 7.18  | 37.92 | 278.80 | 155.84 | 299.22 | 80.42 | 48.56 | 691.98 | 33.01 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 80.90 | 25.01 | 24.33 | 27.26 | 32.09 | 32.09 | 84.28 | 22.54 | 18.24 | 83.76 | 39.75 | 19.93 |
| Movement LOS                    | F     | C     | C     | C     | C     | C     | F     | C     | B     | F     | D     | B     |
| d_A, Approach Delay [s/veh]     | 71.77 |       |       | 31.01 |       |       | 25.38 |       |       | 39.85 |       |       |
| Approach LOS                    | E     |       |       | C     |       |       | C     |       |       | D     |       |       |
| d_I, Intersection Delay [s/veh] | 36.38 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | D     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.777 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 56.31 | 56.31 | 56.31 | 56.31 |
| l_p,int, Pedestrian LOS Score for Intersection           | 2.293 | 2.280 | 4.298 | 3.933 |
| Crosswalk LOS  | B     | B     | E     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 754   | 754   | 985   | 938   |
| d_b, Bicycle Delay [s]                                   | 25.23 | 25.23 | 16.75 | 18.31 |
| l_b,int, Bicycle LOS Score for Intersection              | 2.096 | 2.144 | 2.286 | 2.718 |
| Bicycle LOS  | B     | B     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 13.1  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.036 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 150.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 15              | 3      | 41     | 8               | 6      | 1      | 1              | 48     | 5      | 21                  | 83     | 3      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 30              | 6      | 83     | 16              | 12     | 2      | 2              | 98     | 10     | 43                  | 169    | 6      |
| Peak Hour Factor                        | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 8               | 2      | 22     | 4               | 3      | 1      | 1              | 26     | 3      | 11                  | 44     | 2      |
| Total Analysis Volume [veh/h]           | 32              | 6      | 87     | 17              | 13     | 2      | 2              | 103    | 11     | 45                  | 178    | 6      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.06  | 0.01  | 0.09  | 0.04  | 0.02  | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 12.54 | 12.69 | 9.71  | 13.13 | 12.29 | 9.66 | 7.59 | 0.00 | 0.00 | 7.52 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A     | B     | B     | A    | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.58  | 0.58  | 0.58  | 0.20  | 0.20  | 0.20 | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 14.43 | 14.43 | 14.43 | 5.03  | 5.03  | 5.03 | 0.11 | 0.00 | 0.00 | 2.36 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 10.58 |       |       | 12.57 |       |      | 0.13 |      |      | 1.48 |      |      |
| Approach LOS                          | B     |       |       | B     |       |      | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 4.14  |       |       |       |       |      |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |       |       |       |      |      |      |      |      |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 13.3  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.090 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | +                   |        |        | +                   |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 5                       | 1      | 20     | 20                      | 0      | 3      | 2                   | 86     | 2      | 6                   | 101    | 7      |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328                  | 2.0328 | 2.0328 | 2.0328                  | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 10                      | 2      | 41     | 41                      | 0      | 6      | 4                   | 175    | 4      | 12                  | 205    | 14     |
| Peak Hour Factor                        | 0.9500                  | 0.9500 | 0.9500 | 0.9500                  | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 3                       | 1      | 11     | 11                      | 0      | 2      | 1                   | 46     | 1      | 3                   | 54     | 4      |
| Total Analysis Volume [veh/h]           | 11                      | 2      | 43     | 43                      | 0      | 6      | 4                   | 184    | 4      | 13                  | 216    | 15     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.02  | 0.00  | 0.05 | 0.09  | 0.00  | 0.01  | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 12.41 | 12.63 | 9.60 | 13.35 | 12.96 | 10.19 | 7.70 | 0.00 | 0.00 | 7.62 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | B     | B     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.24  | 0.24  | 0.24 | 0.32  | 0.32  | 0.32  | 0.01 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 6.12  | 6.12  | 6.12 | 8.08  | 8.08  | 8.08  | 0.23 | 0.00 | 0.00 | 0.71 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 10.26 |       |      | 12.96 |       |       | 0.16 |      |      | 0.41 |      |      |
| Approach LOS                          | B     |       |      | B     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 2.48  |       |      |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | B     |       |      |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 6.1   |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | A     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.174 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔                 |        | ↕                   |        | ↕                   |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 26                | 16     | 18                  | 109    | 96                  | 8      |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 2.0328            | 2.0328 | 2.0328              | 2.0328 | 2.0328              | 2.0328 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 53                | 33     | 37                  | 222    | 195                 | 16     |
| Peak Hour Factor                            | 0.9500            | 0.9500 | 0.9500              | 0.9500 | 0.9500              | 0.9500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 14                | 9      | 10                  | 58     | 51                  | 4      |
| Total Analysis Volume [veh/h]               | 56                | 35     | 39                  | 234    | 205                 | 17     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 20         | 0          | 0          | 40         | 40         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | R     | L    | C    | C    | R    |
|---|-------|-------|------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60   | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 4     | 4     | 48   | 48   | 48   | 48   |
| g / C, Green / Cycle                    | 0.07  | 0.07  | 0.80 | 0.80 | 0.80 | 0.80 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03  | 0.02  | 0.04 | 0.14 | 0.12 | 0.01 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 1059 | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 107   | 96    | 896  | 1346 | 1346 | 1144 |
| d1, Uniform Delay [s]                   | 27.09 | 26.79 | 2.23 | 1.40 | 1.37 | 1.22 |
| k, delay calibration                    | 0.11  | 0.11  | 0.50 | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 3.91  | 2.33  | 0.09 | 0.28 | 0.24 | 0.02 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |      |      |      |      |
|---------------------------------------|-------|-------|------|------|------|------|
| X, volume / capacity                  | 0.52  | 0.37  | 0.04 | 0.17 | 0.15 | 0.01 |
| d, Delay for Lane Group [s/veh]       | 31.00 | 29.13 | 2.32 | 1.68 | 1.61 | 1.24 |
| Lane Group LOS                        | C     | C     | A    | A    | A    | A    |
| Critical Lane Group                   | Yes   | No    | No   | Yes  | No   | No   |
| 50th-Percentile Queue Length [veh/ln] | 0.84  | 0.51  | 0.08 | 0.16 | 0.14 | 0.01 |
| 50th-Percentile Queue Length [ft/ln]  | 20.98 | 12.72 | 1.92 | 4.06 | 3.47 | 0.28 |
| 95th-Percentile Queue Length [veh/ln] | 1.51  | 0.92  | 0.14 | 0.29 | 0.25 | 0.02 |
| 95th-Percentile Queue Length [ft/ln]  | 37.77 | 22.90 | 3.45 | 7.31 | 6.25 | 0.50 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |      |      |      |
|---------------------------------|-------|-------|------|------|------|------|
| d_M, Delay for Movement [s/veh] | 31.00 | 29.13 | 2.32 | 1.68 | 1.61 | 1.24 |
| Movement LOS                    | C     | C     | A    | A    | A    | A    |
| d_A, Approach Delay [s/veh]     | 30.28 |       | 1.77 |      | 1.58 |      |
| Approach LOS                    | C     |       | A    |      | A    |      |
| d_I, Intersection Delay [s/veh] | 6.12  |       |      |      |      |      |
| Intersection LOS                | A     |       |      |      |      |      |
| Intersection V/C                | 0.174 |       |      |      |      |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.032 | 2.115 | 2.115 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 533   | 1200  | 1200  |
| d_b, Bicycle Delay [s]                                   | 16.14 | 4.81  | 4.81  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 2.010 | 1.926 |
| Bicycle LOS  | A     | B     | A     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 18.1  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.366 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|------------------------------|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound  |        |        | Eastbound           |        |        | Westbound       |        |        |
| Lane Configuration           |                 |        |        |             |        |        |                     |        |        |                 |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left        | Thru   | Right  | Left                | Thru   | Right  | Left            | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00       | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1           | 0      | 1      | 2                   | 0      | 1      | 1               | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00          | 100.00 | 250.00 | 280.00      | 100.00 | 190.00 | 350.00              | 100.00 | 300.00 | 265.00          | 100.00 | 130.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00        | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00       |        |        | 35.00               |        |        | 30.00           |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00        |        |        | 0.00                |        |        | 0.00            |        |        |
| Curb Present                 | Yes             |        |        | Yes         |        |        | Yes                 |        |        | Yes             |        |        |
| Crosswalk                    | No              |        |        | No          |        |        | Yes                 |        |        | Yes             |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Base Volume Input [veh/h]                   | 56              | 186    | 8      | 24          | 295    | 19     | 26                  | 32     | 78     | 20              | 29     | 42     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328      | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 114             | 378    | 16     | 49          | 600    | 39     | 53                  | 65     | 159    | 41              | 59     | 85     |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500      | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 30              | 99     | 4      | 13          | 158    | 10     | 14                  | 17     | 42     | 11              | 16     | 22     |
| Total Analysis Volume [veh/h]               | 120             | 398    | 17     | 52          | 632    | 41     | 56                  | 68     | 167    | 43              | 62     | 89     |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No              |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 16      | 36      | 0       | 10      | 30      | 0       | 52       | 14      | 0       | 10      | 14      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C    | R    | L     | C    | R    |
|---|-------|-------|-------|-------|-------|-------|-------|------|------|-------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60    | 60    | 60    | 60    | 60   | 60   | 60    | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 0.00  | 4.00 | 4.00 | 4.00  | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 2.00  | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00 | 2.00 | 2.00  | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 6     | 16    | 16    | 23    | 15    | 15    | 0     | 29   | 29   | 29    | 29   | 29   |
| g / C, Green / Cycle                    | 0.11  | 0.27  | 0.27  | 0.39  | 0.25  | 0.25  | 0.00  | 0.48 | 0.48 | 0.48  | 0.48 | 0.48 |
| (v / s)_i Volume / Saturation Flow Rate | 0.09  | 0.12  | 0.01  | 0.05  | 0.20  | 0.03  | 0.06  | 0.04 | 0.12 | 0.04  | 0.02 | 0.06 |
| s, saturation flow rate [veh/h]         | 1402  | 3204  | 1431  | 1041  | 3204  | 1431  | 902   | 1683 | 1431 | 1199  | 3204 | 1431 |
| c, Capacity [veh/h]                     | 307   | 874   | 390   | 490   | 796   | 355   | 120   | 803  | 683  | 622   | 1530 | 683  |
| d1, Uniform Delay [s]                   | 12.13 | 18.17 | 16.10 | 11.90 | 21.17 | 17.50 | 30.08 | 8.56 | 9.30 | 10.55 | 8.38 | 8.76 |
| k, delay calibration                    | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.50  | 0.50 | 0.50 | 0.50  | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.81  | 0.37  | 0.05  | 0.09  | 1.85  | 0.14  | 12.57 | 0.21 | 0.85 | 0.21  | 0.05 | 0.39 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 |
| Rp, 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 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |        |       |       |       |       |       |      |       |
|---------------------------------------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|------|-------|
| X, volume / capacity                  | 0.39  | 0.46  | 0.04  | 0.11  | 0.79   | 0.12  | 0.47  | 0.08  | 0.24  | 0.07  | 0.04 | 0.13  |
| d, Delay for Lane Group [s/veh]       | 12.94 | 18.54 | 16.15 | 11.99 | 23.02  | 17.64 | 42.65 | 8.77  | 10.15 | 10.76 | 8.43 | 9.16  |
| Lane Group LOS                        | B     | B     | B     | B     | C      | B     | D     | A     | B     | B     | A    | A     |
| Critical Lane Group                   | Yes   | No    | No    | No    | Yes    | No    | No    | No    | Yes   | No    | No   | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.99  | 2.10  | 0.16  | 0.39  | 3.92   | 0.41  | 0.61  | 0.44  | 1.22  | 0.34  | 0.19 | 0.63  |
| 50th-Percentile Queue Length [ft/ln]  | 24.75 | 52.46 | 4.01  | 9.86  | 98.09  | 10.32 | 15.36 | 11.06 | 30.46 | 8.51  | 4.86 | 15.67 |
| 95th-Percentile Queue Length [veh/ln] | 1.78  | 3.78  | 0.29  | 0.71  | 7.06   | 0.74  | 1.11  | 0.80  | 2.19  | 0.61  | 0.35 | 1.13  |
| 95th-Percentile Queue Length [ft/ln]  | 44.55 | 94.43 | 7.22  | 17.75 | 176.56 | 18.58 | 27.64 | 19.91 | 54.83 | 15.31 | 8.75 | 28.21 |

**Movement, Approach, & Intersection Results**

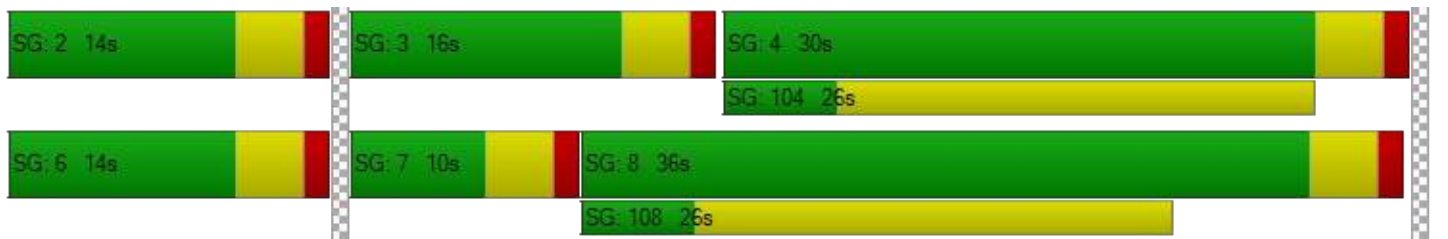
|                                 |       |       |       |       |       |       |       |      |       |       |      |      |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|------|
| d_M, Delay for Movement [s/veh] | 12.94 | 18.54 | 16.15 | 11.99 | 23.02 | 17.64 | 42.65 | 8.77 | 10.15 | 10.76 | 8.43 | 9.16 |
| Movement LOS                    | B     | B     | B     | B     | C     | B     | D     | A    | B     | B     | A    | A    |
| d_A, Approach Delay [s/veh]     | 17.21 |       |       | 21.93 |       |       | 16.08 |      |       | 9.28  |      |      |
| Approach LOS                    | B     |       |       | C     |       |       | B     |      |       | A     |      |      |
| d_I, Intersection Delay [s/veh] | 18.10 |       |       |       |       |       |       |      |       |       |      |      |
| Intersection LOS                | B     |       |       |       |       |       |       |      |       |       |      |      |
| Intersection V/C                | 0.366 |       |       |       |       |       |       |      |       |       |      |      |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 21.72 |  |  | 21.72 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.535 |  |  | 2.368 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 1065  |  |  | 865   |  |  | 333   |  |  | 333   |  |  |
| d_b, Bicycle Delay [s]                                   | 6.56  |  |  | 9.67  |  |  | 20.87 |  |  | 20.87 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 2.001 |  |  | 2.158 |  |  | 2.040 |  |  | 1.720 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | B     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |





**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 22.8  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.536 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | New Meridian Rd   |        |        | US 24   |        |        | US 24   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 2      | 2   | 0      | 1      | 2   | 0      | 1      |
| Entry Pocket Length [ft]     | 350.00  | 100.00 | 343.00 | 200.00  | 100.00 | 220.00 | 350.00  | 100.00 | 350.00 | 390.00  | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 55.00   |        |        | 55.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 5               | 214    | 52     | 19              | 123    | 306    | 74     | 382    | 0      | 66     | 744    | 1      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 10              | 435    | 106    | 39              | 250    | 622    | 150    | 777    | 0      | 134    | 1512   | 2      |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 3               | 114    | 28     | 10              | 66     | 164    | 39     | 204    | 0      | 35     | 398    | 1      |
| Total Analysis Volume [veh/h]               | 11              | 458    | 112    | 41              | 263    | 655    | 158    | 818    | 0      | 141    | 1592   | 2      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 90                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 26      | 0       | 9       | 26      | 0       | 10      | 45      | 0       | 10      | 45      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R    | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| C, Cycle Length [s]                     | 90    | 90    | 90    | 90    | 90    | 90    | 90   | 90    | 90    | 90    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00 | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 36    | 29    | 36    | 31    | 46    | 37    | 37   | 46    | 37    | 37    |
| g / C, Green / Cycle                    | 0.40  | 0.32  | 0.40  | 0.34  | 0.51  | 0.41  | 0.41 | 0.51  | 0.41  | 0.41  |
| (v / s)_i Volume / Saturation Flow Rate | 0.01  | 0.14  | 0.04  | 0.08  | 0.17  | 0.18  | 0.00 | 0.10  | 0.35  | 0.00  |
| s, saturation flow rate [veh/h]         | 1059  | 3204  | 952   | 3204  | 951   | 4584  | 1431 | 1463  | 4584  | 1431  |
| c, Capacity [veh/h]                     | 488   | 1032  | 408   | 1103  | 449   | 1873  | 584  | 730   | 1870  | 584   |
| d1, Uniform Delay [s]                   | 16.30 | 24.18 | 17.03 | 21.12 | 18.13 | 19.20 | 0.00 | 12.43 | 24.22 | 15.83 |
| k, delay calibration                    | 0.11  | 0.50  | 0.50  | 0.50  | 0.11  | 0.11  | 0.11 | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.02  | 1.38  | 0.49  | 0.51  | 0.47  | 0.16  | 0.00 | 0.13  | 1.17  | 0.00  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |       |        |      |       |        |       |
|---------------------------------------|-------|--------|-------|-------|-------|--------|------|-------|--------|-------|
| X, volume / capacity                  | 0.02  | 0.44   | 0.10  | 0.24  | 0.35  | 0.44   | 0.00 | 0.19  | 0.85   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 16.31 | 25.56  | 17.53 | 21.63 | 18.60 | 19.36  | 0.00 | 12.56 | 25.39  | 15.83 |
| Lane Group LOS                        | B     | C      | B     | C     | B     | B      | A    | B     | C      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No    | Yes   | No     | No   | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.13  | 3.90   | 0.55  | 1.98  | 0.72  | 3.60   | 0.00 | 0.63  | 8.97   | 0.02  |
| 50th-Percentile Queue Length [ft/ln]  | 3.34  | 97.43  | 13.83 | 49.54 | 17.99 | 90.03  | 0.00 | 15.63 | 224.19 | 0.55  |
| 95th-Percentile Queue Length [veh/ln] | 0.24  | 7.02   | 1.00  | 3.57  | 1.29  | 6.48   | 0.00 | 1.13  | 13.88  | 0.04  |
| 95th-Percentile Queue Length [ft/ln]  | 6.01  | 175.38 | 24.90 | 89.17 | 32.37 | 162.05 | 0.00 | 28.14 | 346.96 | 0.99  |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |      |       |       |      |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 16.31 | 25.56 | 0.00 | 17.53 | 21.63 | 0.00 | 18.60 | 19.36 | 0.00 | 12.56 | 25.39 | 15.83 |
| Movement LOS                    | B     | C     |      | B     | C     |      | B     | B     | A    | B     | C     | B     |
| d_A, Approach Delay [s/veh]     | 25.35 |       |      | 21.08 |       |      | 19.24 |       |      | 24.33 |       |       |
| Approach LOS                    | C     |       |      | C     |       |      | B     |       |      | C     |       |       |
| d_I, Intersection Delay [s/veh] | 22.76 |       |      |       |       |      |       |       |      |       |       |       |
| Intersection LOS                | C     |       |      |       |       |      |       |       |      |       |       |       |
| Intersection V/C                | 0.536 |       |      |       |       |      |       |       |      |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 36.49 | 36.49 | 36.49 | 36.49 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.706 | 2.842 | 3.435 | 3.452 |
| Crosswalk LOS  | B     | C     | C     | C     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 488   | 488   | 910   | 910   |
| d_b, Bicycle Delay [s]                                   | 25.73 | 25.73 | 13.37 | 13.37 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.947 | 1.810 | 2.096 | 2.514 |
| Bicycle LOS  | A     | A     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 34.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.699 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           | ↵↵↵            |        |        | ↵↵↵            |        |        | ↵↵↵↵↵      |        |        | ↵↵↵↵↵      |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 2              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 380.00         | 100.00 | 200.00 | 95.00          | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 0.00   | 0.00       | 0.00   | 0.00   |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Input [veh/h]                   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 2.0328         | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 169            | 79     | 26     | 130            | 20     | 209    | 183        | 2958   | 215    | 24         | 2155   | 85     |
| Peak Hour Factor                            | 0.9500         | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 44             | 21     | 7      | 34             | 5      | 55     | 48         | 778    | 57     | 6          | 567    | 22     |
| Total Analysis Volume [veh/h]               | 178            | 83     | 27     | 137            | 21     | 220    | 193        | 3114   | 226    | 25         | 2268   | 89     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 160                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|----------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 3        | 8       | 0       | 7        | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |          |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | Lead     | -       | -       | Lead     | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 5        | 10      | 0       | 5        | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 30       | 30      | 0       | 30       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 35       | 97      | 0       | 10       | 72      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0        | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0        | 14      | 0       | 0        | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |          | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 160   | 160   | 160   | 160   | 160   | 160   | 160   | 160   | 160   | 160   | 160   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 49    | 49    | 49    | 49    | 49    | 21    | 96    | 96    | 3     | 78    | 78    |
| g / C, Green / Cycle                    | 0.31  | 0.31  | 0.31  | 0.31  | 0.31  | 0.13  | 0.60  | 0.60  | 0.02  | 0.49  | 0.49  |
| (v / s)_i Volume / Saturation Flow Rate | 0.17  | 0.05  | 0.02  | 0.06  | 0.16  | 0.12  | 0.51  | 0.16  | 0.02  | 0.37  | 0.06  |
| s, saturation flow rate [veh/h]         | 1025  | 1683  | 1431  | 2298  | 1507  | 1603  | 6113  | 1431  | 1603  | 6113  | 1431  |
| c, Capacity [veh/h]                     | 212   | 514   | 437   | 637   | 460   | 212   | 3657  | 856   | 35    | 2980  | 697   |
| d1, Uniform Delay [s]                   | 67.71 | 40.57 | 39.31 | 46.83 | 45.91 | 68.39 | 26.29 | 15.32 | 77.70 | 33.37 | 22.38 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.17  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 31.17 | 0.67  | 0.27  | 0.77  | 4.22  | 19.97 | 0.61  | 0.16  | 24.72 | 0.41  | 0.08  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |        |       |        |        |        |        |        |        |        |       |
|---------------------------------------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|-------|
| X, volume / capacity                  | 0.84   | 0.16   | 0.06  | 0.22   | 0.52   | 0.91   | 0.85   | 0.26   | 0.72   | 0.76   | 0.13  |
| d, Delay for Lane Group [s/veh]       | 98.87  | 41.24  | 39.58 | 47.60  | 50.13  | 88.36  | 26.90  | 15.48  | 102.41 | 33.78  | 22.46 |
| Lane Group LOS                        | F      | D      | D     | D      | D      | F      | C      | B      | F      | C      | C     |
| Critical Lane Group                   | Yes    | No     | No    | No     | No     | No     | Yes    | No     | Yes    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 9.17   | 2.52   | 0.80  | 2.26   | 8.56   | 8.75   | 22.08  | 3.75   | 1.24   | 17.00  | 1.80  |
| 50th-Percentile Queue Length [ft/ln]  | 229.29 | 62.95  | 19.91 | 56.49  | 214.05 | 218.68 | 552.05 | 93.69  | 30.97  | 424.97 | 44.91 |
| 95th-Percentile Queue Length [veh/ln] | 14.14  | 4.53   | 1.43  | 4.07   | 13.36  | 13.60  | 29.79  | 6.75   | 2.23   | 23.76  | 3.23  |
| 95th-Percentile Queue Length [ft/ln]  | 353.45 | 113.31 | 35.84 | 101.68 | 334.02 | 339.95 | 744.71 | 168.64 | 55.74  | 594.01 | 80.84 |

**Movement, Approach, & Intersection Results**

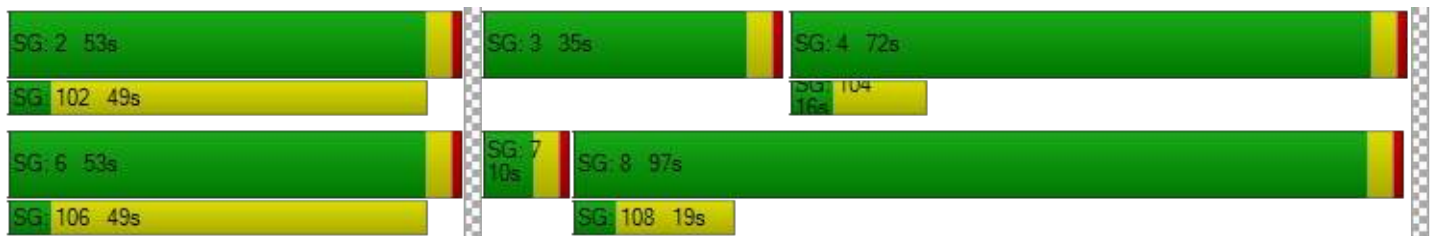
|                                 |       |       |       |       |       |       |       |       |       |        |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| d_M, Delay for Movement [s/veh] | 98.87 | 41.24 | 39.58 | 47.60 | 50.13 | 50.13 | 88.36 | 26.90 | 15.48 | 102.41 | 33.78 | 22.46 |
| Movement LOS                    | F     | D     | D     | D     | D     | D     | F     | C     | B     | F      | C     | C     |
| d_A, Approach Delay [s/veh]     | 76.71 |       |       | 49.21 |       |       | 29.52 |       |       | 34.08  |       |       |
| Approach LOS                    | E     |       |       | D     |       |       | C     |       |       | C      |       |       |
| d_I, Intersection Delay [s/veh] | 34.37 |       |       |       |       |       |       |       |       |        |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |        |       |       |
| Intersection V/C                | 0.699 |       |       |       |       |       |       |       |       |        |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 71.20 | 71.20 | 71.20 | 71.20 |
| l_p,int, Pedestrian LOS Score for Intersection           | 2.319 | 2.341 | 4.367 | 4.221 |
| Crosswalk LOS  | B     | B     | E     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 613   | 613   | 1163  | 851   |
| d_b, Bicycle Delay [s]                                   | 38.45 | 38.45 | 13.99 | 26.40 |
| l_b,int, Bicycle LOS Score for Intersection              | 2.035 | 2.183 | 3.017 | 2.542 |
| Bicycle LOS  | B     | B     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 15.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.051 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 150.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 8               | 7      | 24     | 9               | 4      | 2      | 0              | 72     | 13     | 34                  | 108    | 6      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 16              | 14     | 49     | 18              | 8      | 4      | 0              | 146    | 26     | 69                  | 220    | 12     |
| Peak Hour Factor                        | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 4               | 4      | 13     | 5               | 2      | 1      | 0              | 38     | 7      | 18                  | 58     | 3      |
| Total Analysis Volume [veh/h]           | 17              | 15     | 52     | 19              | 8      | 4      | 0              | 154    | 27     | 73                  | 232    | 13     |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.04  | 0.04  | 0.06  | 0.05  | 0.02  | 0.00  | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 14.61 | 14.60 | 10.03 | 15.43 | 14.47 | 10.22 | 7.73 | 0.00 | 0.00 | 7.72 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | B     | C     | B     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.47  | 0.47  | 0.47  | 0.24  | 0.24  | 0.24  | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 11.77 | 11.77 | 11.77 | 6.11  | 6.11  | 6.11  | 0.00 | 0.00 | 0.00 | 4.14 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 11.77 |       |       | 14.51 |       |       | 0.00 |      |      | 1.77 |      |      |
| Approach LOS                          | B     |       |       | B     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 3.26  |       |       |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | C     |       |       |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report****Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 15.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.067 |

**Intersection Setup**

| Name                         | Antelope Meadows Circle |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | ←↑                  |        |        | ←↑                  |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelope Meadows Circle |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 4                       | 0      | 16     | 12                      | 0      | 2      | 2                   | 83     | 3      | 13                  | 161    | 25     |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328                  | 2.0328 | 2.0328 | 2.0328                  | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 8                       | 0      | 33     | 24                      | 0      | 4      | 4                   | 169    | 6      | 26                  | 327    | 51     |
| Peak Hour Factor                        | 0.9500                  | 0.9500 | 0.9500 | 0.9500                  | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 2                       | 0      | 9      | 6                       | 0      | 1      | 1                   | 44     | 2      | 7                   | 86     | 13     |
| Total Analysis Volume [veh/h]           | 8                       | 0      | 35     | 25                      | 0      | 4      | 4                   | 178    | 6      | 27                  | 344    | 54     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |      |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.02  | 0.00  | 0.04 | 0.07  | 0.00  | 0.01  | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 14.48 | 14.71 | 9.51 | 15.43 | 14.80 | 11.05 | 8.11 | 0.00 | 0.00 | 7.64 | 0.00 | 0.00 |
| Movement LOS                          | B     | B     | A    | C     | B     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.19  | 0.19  | 0.19 | 0.24  | 0.24  | 0.24  | 0.01 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 4.86  | 4.86  | 4.86 | 5.91  | 5.91  | 5.91  | 0.26 | 0.00 | 0.00 | 1.48 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 10.43 |       |      | 14.83 |       |       | 0.17 |      |      | 0.49 |      |      |
| Approach LOS                          | B     |       |      | B     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 1.63  |       |      |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | C     |       |      |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 11.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.290 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 63                | 35     | 21                  | 91     | 162                 | 27     |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 2.0328            | 2.0328 | 2.0328              | 2.0328 | 2.0328              | 2.0328 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 128               | 71     | 43                  | 185    | 329                 | 55     |
| Peak Hour Factor                            | 0.9500            | 0.9500 | 0.9500              | 0.9500 | 0.9500              | 0.9500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 34                | 19     | 11                  | 49     | 87                  | 14     |
| Total Analysis Volume [veh/h]               | 135               | 75     | 45                  | 195    | 346                 | 58     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 26         | 0          | 0          | 34         | 34         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | R     | L     | C    | C    | R    |
|---|-------|-------|-------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00  | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 22    | 22    | 30    | 30   | 30   | 30   |
| g / C, Green / Cycle                    | 0.37  | 0.37  | 0.50  | 0.50 | 0.50 | 0.50 |
| (v / s)_i Volume / Saturation Flow Rate | 0.08  | 0.05  | 0.05  | 0.12 | 0.21 | 0.04 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 931   | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 588   | 525   | 434   | 841  | 841  | 715  |
| d1, Uniform Delay [s]                   | 13.14 | 12.70 | 13.85 | 8.48 | 9.44 | 7.82 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.91  | 0.57  | 0.48  | 0.64 | 1.49 | 0.22 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |        |       |
|---------------------------------------|-------|-------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.23  | 0.14  | 0.10  | 0.23  | 0.41   | 0.08  |
| d, Delay for Lane Group [s/veh]       | 14.05 | 13.27 | 14.32 | 9.13  | 10.93  | 8.04  |
| Lane Group LOS                        | B     | B     | B     | A     | B      | A     |
| Critical Lane Group                   | Yes   | No    | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 1.25  | 0.67  | 0.43  | 1.30  | 2.62   | 0.36  |
| 50th-Percentile Queue Length [ft/ln]  | 31.15 | 16.81 | 10.82 | 32.56 | 65.55  | 9.00  |
| 95th-Percentile Queue Length [veh/ln] | 2.24  | 1.21  | 0.78  | 2.34  | 4.72   | 0.65  |
| 95th-Percentile Queue Length [ft/ln]  | 56.08 | 30.26 | 19.48 | 58.61 | 117.98 | 16.19 |

**Movement, Approach, & Intersection Results**

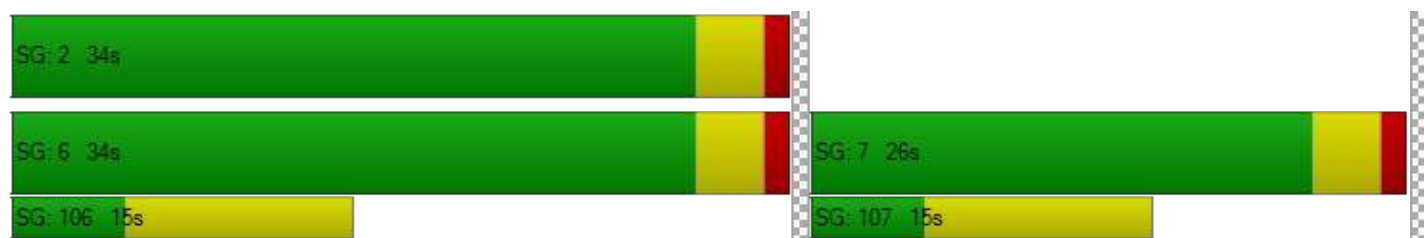
|                                 |       |       |       |      |       |      |
|---------------------------------|-------|-------|-------|------|-------|------|
| d_M, Delay for Movement [s/veh] | 14.05 | 13.27 | 14.32 | 9.13 | 10.93 | 8.04 |
| Movement LOS                    | B     | B     | B     | A    | B     | A    |
| d_A, Approach Delay [s/veh]     | 13.77 |       | 10.10 |      | 10.51 |      |
| Approach LOS                    | B     |       | B     |      | B     |      |
| d_I, Intersection Delay [s/veh] | 11.20 |       |       |      |       |      |
| Intersection LOS                | B     |       |       |      |       |      |
| Intersection V/C                | 0.290 |       |       |      |       |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.104 | 2.171 | 2.199 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 733   | 1000  | 1000  |
| d_b, Bicycle Delay [s]                                   | 12.03 | 7.50  | 7.50  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 1.956 | 2.226 |
| Bicycle LOS  | A     | A     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 20.7  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.491 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound  |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           |                 |        |        |             |        |        |                     |        |        |                     |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left        | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00       | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1           | 0      | 1      | 2                   | 0      | 1      | 1                   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00          | 100.00 | 250.00 | 280.00      | 100.00 | 190.00 | 350.00              | 100.00 | 300.00 | 265.00              | 100.00 | 130.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00        | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00       |        |        | 35.00               |        |        | 30.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00        |        |        | 0.00                |        |        | 0.00                |        |        |
| Curb Present                 | Yes             |        |        | Yes         |        |        | Yes                 |        |        | Yes                 |        |        |
| Crosswalk                    | No              |        |        | No          |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]                   | 80              | 386    | 33     | 72          | 187    | 47     | 43                  | 32     | 69     | 22                  | 47     | 98     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328      | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 163             | 785    | 67     | 146         | 380    | 96     | 87                  | 65     | 140    | 45                  | 96     | 199    |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500      | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 43              | 207    | 18     | 38          | 100    | 25     | 23                  | 17     | 37     | 12                  | 25     | 52     |
| Total Analysis Volume [veh/h]               | 172             | 826    | 71     | 154         | 400    | 101    | 92                  | 68     | 147    | 47                  | 101    | 209    |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No                  |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 70                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 9       | 30      | 0       | 11       | 22      | 0       | 9       | 20      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 35    | 26    | 26    | 35    | 26    | 26    | 7     | 18    | 18    | 27    | 16    | 16    |
| g / C, Green / Cycle                    | 0.50  | 0.37  | 0.37  | 0.50  | 0.37  | 0.37  | 0.10  | 0.26  | 0.26  | 0.39  | 0.23  | 0.23  |
| (v / s)_i Volume / Saturation Flow Rate | 0.17  | 0.26  | 0.05  | 0.19  | 0.12  | 0.07  | 0.03  | 0.04  | 0.10  | 0.04  | 0.03  | 0.15  |
| s, saturation flow rate [veh/h]         | 1029  | 3204  | 1431  | 798   | 3204  | 1431  | 3113  | 1683  | 1431  | 1304  | 3204  | 1431  |
| c, Capacity [veh/h]                     | 584   | 1190  | 531   | 417   | 1190  | 531   | 311   | 433   | 368   | 614   | 732   | 327   |
| d1, Uniform Delay [s]                   | 10.15 | 18.63 | 14.55 | 11.93 | 15.80 | 14.88 | 29.21 | 20.13 | 21.53 | 13.64 | 21.51 | 24.39 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 1.28  | 3.35  | 0.52  | 2.50  | 0.76  | 0.79  | 2.41  | 0.77  | 3.22  | 0.24  | 0.39  | 9.23  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |       |       |       |       |       |       |       |       |        |
|---------------------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| X, volume / capacity                  | 0.29  | 0.69   | 0.13  | 0.37  | 0.34  | 0.19  | 0.30  | 0.16  | 0.40  | 0.08  | 0.14  | 0.64   |
| d, Delay for Lane Group [s/veh]       | 11.43 | 21.98  | 15.07 | 14.43 | 16.56 | 15.67 | 31.62 | 20.90 | 24.74 | 13.88 | 21.90 | 33.62  |
| Lane Group LOS                        | B     | C      | B     | B     | B     | B     | C     | C     | C     | B     | C     | C      |
| Critical Lane Group                   | No    | Yes    | No    | Yes   | No    | No    | Yes   | No    | No    | No    | No    | Yes    |
| 50th-Percentile Queue Length [veh/ln] | 1.48  | 5.62   | 0.76  | 1.42  | 2.21  | 1.11  | 0.79  | 0.90  | 2.19  | 0.48  | 0.67  | 3.80   |
| 50th-Percentile Queue Length [ft/ln]  | 37.05 | 140.59 | 18.94 | 35.40 | 55.21 | 27.68 | 19.65 | 22.40 | 54.64 | 12.00 | 16.79 | 95.09  |
| 95th-Percentile Queue Length [veh/ln] | 2.67  | 9.51   | 1.36  | 2.55  | 3.98  | 1.99  | 1.42  | 1.61  | 3.93  | 0.86  | 1.21  | 6.85   |
| 95th-Percentile Queue Length [ft/ln]  | 66.68 | 237.81 | 34.10 | 63.73 | 99.38 | 49.83 | 35.38 | 40.33 | 98.36 | 21.60 | 30.23 | 171.16 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 11.43 | 21.98 | 15.07 | 14.43 | 16.56 | 15.67 | 31.62 | 20.90 | 24.74 | 13.88 | 21.90 | 33.62 |
| Movement LOS                    | B     | C     | B     | B     | B     | B     | C     | C     | C     | B     | C     | C     |
| d_A, Approach Delay [s/veh]     | 19.82 |       |       | 15.92 |       |       | 25.95 |       |       | 27.71 |       |       |
| Approach LOS                    | B     |       |       | B     |       |       | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 20.72 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.491 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 26.58 |  |  | 26.58 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.669 |  |  | 2.503 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 743   |  |  | 743   |  |  | 514   |  |  | 457   |  |  |
| d_b, Bicycle Delay [s]                                   | 13.83 |  |  | 13.83 |  |  | 19.31 |  |  | 20.83 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 2.442 |  |  | 2.100 |  |  | 2.066 |  |  | 1.854 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | B     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |





**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 30.0  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.685 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | New Meridian Rd   |        |        | US 24   |        |        | US 24   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 2      | 2   | 0      | 1      | 2   | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00  | 100.00 | 343.00 | 200.00  | 100.00 | 220.00 | 350.00  | 100.00 | 350.00 | 390.00  | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 55.00   |        |        | 55.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 2               | 339    | 68     | 36              | 259    | 144    | 293    | 768    | 1      | 184    | 496    | 2      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 4               | 689    | 138    | 73              | 526    | 293    | 596    | 1561   | 2      | 374    | 1008   | 4      |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 1               | 181    | 36     | 19              | 138    | 77     | 157    | 411    | 1      | 98     | 265    | 1      |
| Total Analysis Volume [veh/h]               | 4               | 725    | 145    | 77              | 554    | 308    | 627    | 1643   | 2      | 394    | 1061   | 4      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 90                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 14      | 27      | 0       | 9       | 22      | 0       | 13      | 45      | 0       | 9       | 41      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 90    | 90    | 90    | 90    | 90    | 90    | 90    | 90    | 90    | 90    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 32    | 23    | 32    | 18    | 50    | 41    | 41    | 50    | 37    | 37    |
| g / C, Green / Cycle                    | 0.36  | 0.26  | 0.36  | 0.20  | 0.56  | 0.46  | 0.46  | 0.56  | 0.41  | 0.41  |
| (v / s)_i Volume / Saturation Flow Rate | 0.00  | 0.23  | 0.09  | 0.17  | 0.44  | 0.36  | 0.00  | 0.44  | 0.23  | 0.00  |
| s, saturation flow rate [veh/h]         | 1082  | 3204  | 863   | 3204  | 1410  | 4584  | 1431  | 894   | 4584  | 1431  |
| c, Capacity [veh/h]                     | 372   | 819   | 280   | 641   | 768   | 2088  | 652   | 484   | 1885  | 588   |
| d1, Uniform Delay [s]                   | 20.00 | 32.23 | 22.05 | 34.82 | 15.21 | 20.79 | 13.36 | 18.61 | 20.30 | 15.65 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.05  | 13.46 | 2.43  | 14.48 | 9.39  | 3.08  | 0.01  | 13.99 | 1.22  | 0.02  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |        |        |        |       |        |        |       |
|---------------------------------------|-------|--------|-------|--------|--------|--------|-------|--------|--------|-------|
| X, volume / capacity                  | 0.01  | 0.89   | 0.28  | 0.86   | 0.82   | 0.79   | 0.00  | 0.81   | 0.56   | 0.01  |
| d, Delay for Lane Group [s/veh]       | 20.05 | 45.69  | 24.47 | 49.29  | 24.60  | 23.87  | 13.37 | 32.60  | 21.53  | 15.67 |
| Lane Group LOS                        | C     | D      | C     | D      | C      | C      | B     | C      | C      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No     | No     | Yes    | No    | Yes    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.06  | 8.79   | 1.24  | 6.94   | 3.78   | 8.78   | 0.02  | 2.54   | 5.14   | 0.05  |
| 50th-Percentile Queue Length [ft/ln]  | 1.44  | 219.82 | 31.00 | 173.62 | 94.62  | 219.54 | 0.52  | 63.47  | 128.44 | 1.16  |
| 95th-Percentile Queue Length [veh/ln] | 0.10  | 13.66  | 2.23  | 11.27  | 6.81   | 13.64  | 0.04  | 4.57   | 8.86   | 0.08  |
| 95th-Percentile Queue Length [ft/ln]  | 2.59  | 341.40 | 55.80 | 281.66 | 170.32 | 341.04 | 0.93  | 114.25 | 221.38 | 2.09  |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |      |       |       |       |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 20.05 | 45.69 | 0.00 | 24.47 | 49.29 | 0.00 | 24.60 | 23.87 | 13.37 | 32.60 | 21.53 | 15.67 |
| Movement LOS                    | C     | D     |      | C     | D     |      | C     | C     | B     | C     | C     | B     |
| d_A, Approach Delay [s/veh]     | 45.55 |       |      | 46.27 |       |      | 24.06 |       |       | 24.50 |       |       |
| Approach LOS                    | D     |       |      | D     |       |      | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 30.02 |       |      |       |       |      |       |       |       |       |       |       |
| Intersection LOS                | C     |       |      |       |       |      |       |       |       |       |       |       |
| Intersection V/C                | 0.685 |       |      |       |       |      |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 36.45 | 36.45 | 36.45 | 36.45 |
| I_p,int, Pedestrian LOS Score for Intersection           | 3.040 | 3.305 | 3.515 | 3.567 |
| Crosswalk LOS  | C     | C     | D     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 511   | 400   | 911   | 822   |
| d_b, Bicycle Delay [s]                                   | 24.94 | 28.80 | 13.34 | 15.61 |
| I_b,int, Bicycle LOS Score for Intersection              | 2.161 | 2.080 | 2.809 | 2.362 |
| Bicycle LOS  | B     | B     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 44.5  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.822 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           | ↔↔↔            |        |        | ↔↔↔            |        |        | ↔↔↔↔↔      |        |        | ↔↔↔↔↔      |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 2              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 380.00         | 100.00 | 200.00 | 95.00          | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 0.00   | 0.00       | 0.00   | 0.00   |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   |                |        |        |                |        |        |            |        |        |            |        |        |
| Base Volume Input [veh/h]                   | 127            | 21     | 4      | 37             | 17     | 111    | 42         | 728    | 53     | 13         | 1279   | 21     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 2.0328         | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 43             | 0      | 11     | 0              | 0      | 0      | 0          | 0      | 14     | 4          | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 301            | 43     | 19     | 75             | 35     | 226    | 85         | 1480   | 122    | 30         | 2600   | 43     |
| Peak Hour Factor                            | 0.9500         | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 79             | 11     | 5      | 20             | 9      | 59     | 22         | 389    | 32     | 8          | 684    | 11     |
| Total Analysis Volume [veh/h]               | 317            | 45     | 20     | 79             | 37     | 238    | 89         | 1558   | 128    | 32         | 2737   | 45     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |
| Bicycle Volume [bicycles/h]                 | 0              |        |        | 0              |        |        | 0          |        |        | 0          |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 130                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|----------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 3        | 8       | 0       | 7        | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |          |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | Lead     | -       | -       | Lead     | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 5        | 10      | 0       | 5        | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 30       | 30      | 0       | 30       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     |
| Split [s]                    | 0       | 57      | 0       | 0       | 57      | 0       | 12       | 64      | 0       | 9        | 61      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0        | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0        | 14      | 0       | 0        | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |          | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   | 130   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 53    | 53    | 53    | 53    | 53    | 8     | 61    | 61    | 3     | 57    | 57    |
| g / C, Green / Cycle                    | 0.41  | 0.41  | 0.41  | 0.41  | 0.41  | 0.06  | 0.47  | 0.47  | 0.03  | 0.44  | 0.44  |
| (v / s)_i Volume / Saturation Flow Rate | 0.32  | 0.03  | 0.01  | 0.03  | 0.18  | 0.06  | 0.25  | 0.09  | 0.02  | 0.45  | 0.03  |
| s, saturation flow rate [veh/h]         | 994   | 1683  | 1431  | 2378  | 1518  | 1603  | 6113  | 1431  | 1603  | 6113  | 1431  |
| c, Capacity [veh/h]                     | 321   | 688   | 585   | 961   | 621   | 99    | 2887  | 676   | 42    | 2672  | 625   |
| d1, Uniform Delay [s]                   | 50.43 | 23.32 | 23.02 | 25.79 | 27.72 | 60.61 | 24.30 | 19.88 | 62.87 | 36.59 | 21.27 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 47.11 | 0.18  | 0.11  | 0.17  | 2.28  | 23.67 | 0.16  | 0.13  | 23.66 | 15.38 | 0.05  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |       |       |       |        |        |        |       |       |        |       |
|---------------------------------------|--------|-------|-------|-------|--------|--------|--------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.99   | 0.07  | 0.03  | 0.08  | 0.44   | 0.90   | 0.54   | 0.19  | 0.76  | 1.02   | 0.07  |
| d, Delay for Lane Group [s/veh]       | 97.54  | 23.50 | 23.13 | 25.95 | 30.00  | 84.28  | 24.45  | 20.02 | 86.53 | 51.97  | 21.32 |
| Lane Group LOS                        | F      | C     | C     | C     | C      | F      | C      | C     | F     | F      | C     |
| Critical Lane Group                   | Yes    | No    | No    | No    | No     | Yes    | No     | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 14.66  | 0.88  | 0.39  | 0.82  | 6.60   | 3.46   | 7.88   | 2.14  | 1.29  | 22.17  | 0.76  |
| 50th-Percentile Queue Length [ft/ln]  | 366.58 | 21.97 | 9.70  | 20.48 | 164.99 | 86.58  | 196.97 | 53.39 | 32.36 | 554.30 | 19.12 |
| 95th-Percentile Queue Length [veh/ln] | 20.94  | 1.58  | 0.70  | 1.47  | 10.81  | 6.23   | 12.48  | 3.84  | 2.33  | 30.44  | 1.38  |
| 95th-Percentile Queue Length [ft/ln]  | 523.58 | 39.55 | 17.46 | 36.87 | 270.31 | 155.84 | 312.05 | 96.10 | 58.24 | 760.98 | 34.42 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 97.54 | 23.50 | 23.13 | 25.95 | 30.00 | 30.00 | 84.28 | 24.45 | 20.02 | 86.53 | 51.97 | 21.32 |
| Movement LOS                    | F     | C     | C     | C     | C     | C     | F     | C     | C     | F     | F     | C     |
| d_A, Approach Delay [s/veh]     | 84.92 |       |       | 29.09 |       |       | 27.13 |       |       | 51.88 |       |       |
| Approach LOS                    | F     |       |       | C     |       |       | C     |       |       | D     |       |       |
| d_I, Intersection Delay [s/veh] | 44.48 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | D     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.822 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 56.31 | 56.31 | 56.31 | 56.31 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.315 | 2.280 | 4.371 | 3.936 |
| Crosswalk LOS  | B     | B     | E     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 815   | 815   | 923   | 877   |
| d_b, Bicycle Delay [s]                                   | 22.80 | 22.80 | 18.85 | 20.50 |
| I_b,int, Bicycle LOS Score for Intersection              | 2.190 | 2.144 | 2.292 | 2.720 |
| Bicycle LOS  | B     | B     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 17.4  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.054 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 150.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 15              | 3      | 41     | 8               | 6      | 1      | 1              | 48     | 5      | 21                  | 83     | 3      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 32              | 0      | 104    | 0               | 0      | 0      | 0              | 7      | 11     | 33                  | 22     | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 62              | 6      | 187    | 16              | 12     | 2      | 2              | 105    | 21     | 76                  | 191    | 6      |
| Peak Hour Factor                        | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 16              | 2      | 49     | 4               | 3      | 1      | 1              | 28     | 6      | 20                  | 50     | 2      |
| Total Analysis Volume [veh/h]           | 65              | 6      | 197    | 17              | 13     | 2      | 2              | 111    | 22     | 80                  | 201    | 6      |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.14  | 0.01  | 0.21  | 0.05  | 0.03  | 0.00  | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 15.86 | 15.88 | 11.75 | 17.44 | 13.99 | 10.21 | 7.64 | 0.00 | 0.00 | 7.62 | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | C     | B     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 1.71  | 1.71  | 1.71  | 0.28  | 0.28  | 0.28  | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 42.68 | 42.68 | 42.68 | 7.01  | 7.01  | 7.01  | 0.11 | 0.00 | 0.00 | 4.37 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 12.84 |       |       | 15.59 |       |       | 0.11 |      |      | 2.13 |      |      |
| Approach LOS                          | B     |       |       | C     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 6.32  |       |       |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | C     |       |       |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 18.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.143 |

**Intersection Setup**

| Name                         | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | ←↑                  |        |        | ←↑                  |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelop Meadows Cirlice |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 5                       | 1      | 20     | 20                      | 0      | 3      | 2                   | 86     | 2      | 6                   | 101    | 7      |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328                  | 2.0328 | 2.0328 | 2.0328                  | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 22                      | 0      | 56     | 0                       | 0      | 0      | 0                   | 104    | 7      | 22                  | 33     | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 32                      | 2      | 97     | 41                      | 0      | 6      | 4                   | 279    | 11     | 34                  | 238    | 14     |
| Peak Hour Factor                        | 0.9500                  | 0.9500 | 0.9500 | 0.9500                  | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 8                       | 1      | 26     | 11                      | 0      | 2      | 1                   | 73     | 3      | 9                   | 63     | 4      |
| Total Analysis Volume [veh/h]           | 34                      | 2      | 102    | 43                      | 0      | 6      | 4                   | 294    | 12     | 36                  | 251    | 15     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.09  | 0.01  | 0.14  | 0.14  | 0.00  | 0.01  | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 16.45 | 16.38 | 11.72 | 18.92 | 16.46 | 11.57 | 7.78 | 0.00 | 0.00 | 7.95 | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | C     | C     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.90  | 0.90  | 0.90  | 0.52  | 0.52  | 0.52  | 0.01 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 22.54 | 22.54 | 22.54 | 13.10 | 13.10 | 13.10 | 0.23 | 0.00 | 0.00 | 2.21 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 12.95 |       |       | 18.02 |       |       | 0.10 |      |      | 0.95 |      |      |
| Approach LOS                          | B     |       |       | C     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 3.74  |       |       |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | C     |       |       |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 11.1  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.254 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 26                | 16     | 18                  | 109    | 96                  | 8      |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 2.0328            | 2.0328 | 2.0328              | 2.0328 | 2.0328              | 2.0328 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 11     | 32                  | 128    | 44                  | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 53                | 44     | 69                  | 350    | 239                 | 16     |
| Peak Hour Factor                            | 0.9500            | 0.9500 | 0.9500              | 0.9500 | 0.9500              | 0.9500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 14                | 12     | 18                  | 92     | 63                  | 4      |
| Total Analysis Volume [veh/h]               | 56                | 46     | 73                  | 368    | 252                 | 17     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 26         | 0          | 0          | 34         | 34         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | R     | L     | C    | C    | R    |
|---|-------|-------|-------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00  | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 22    | 22    | 30    | 30   | 30   | 30   |
| g / C, Green / Cycle                    | 0.37  | 0.37  | 0.50  | 0.50 | 0.50 | 0.50 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03  | 0.03  | 0.07  | 0.22 | 0.15 | 0.01 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 1015  | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 588   | 525   | 504   | 841  | 841  | 715  |
| d1, Uniform Delay [s]                   | 12.47 | 12.43 | 12.48 | 9.60 | 8.82 | 7.59 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 0.32  | 0.33  | 0.60  | 1.65 | 0.91 | 0.06 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |        |       |      |
|---------------------------------------|-------|-------|-------|--------|-------|------|
| X, volume / capacity                  | 0.10  | 0.09  | 0.14  | 0.44   | 0.30  | 0.02 |
| d, Delay for Lane Group [s/veh]       | 12.79 | 12.76 | 13.09 | 11.25  | 9.73  | 7.65 |
| Lane Group LOS                        | B     | B     | B     | B      | A     | A    |
| Critical Lane Group                   | Yes   | No    | No    | Yes    | No    | No   |
| 50th-Percentile Queue Length [veh/ln] | 0.48  | 0.40  | 0.65  | 2.85   | 1.76  | 0.10 |
| 50th-Percentile Queue Length [ft/ln]  | 12.12 | 10.05 | 16.36 | 71.15  | 44.02 | 2.55 |
| 95th-Percentile Queue Length [veh/ln] | 0.87  | 0.72  | 1.18  | 5.12   | 3.17  | 0.18 |
| 95th-Percentile Queue Length [ft/ln]  | 21.81 | 18.08 | 29.45 | 128.06 | 79.24 | 4.59 |

**Movement, Approach, & Intersection Results**

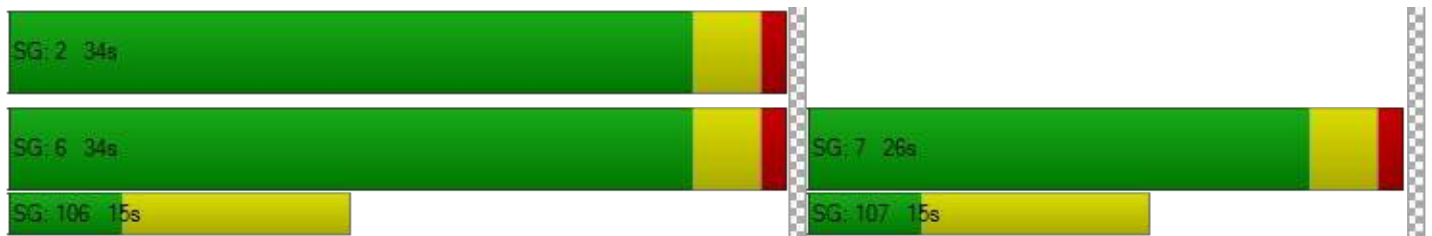
|                                 |       |       |       |       |      |      |
|---------------------------------|-------|-------|-------|-------|------|------|
| d_M, Delay for Movement [s/veh] | 12.79 | 12.76 | 13.09 | 11.25 | 9.73 | 7.65 |
| Movement LOS                    | B     | B     | B     | B     | A    | A    |
| d_A, Approach Delay [s/veh]     | 12.78 |       | 11.55 |       | 9.60 |      |
| Approach LOS                    | B     |       | B     |       | A    |      |
| d_I, Intersection Delay [s/veh] | 11.06 |       |       |       |      |      |
| Intersection LOS                | B     |       |       |       |      |      |
| Intersection V/C                | 0.254 |       |       |       |      |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.098 | 2.201 | 2.184 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 733   | 1000  | 1000  |
| d_b, Bicycle Delay [s]                                   | 12.03 | 7.50  | 7.50  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 2.287 | 2.003 |
| Bicycle LOS  | A     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 16.7  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.424 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|------------------------------|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound  |        |        | Eastbound           |        |        | Westbound       |        |        |
| Lane Configuration           | ⇐⇐⇐             |        |        | ⇐⇐⇐         |        |        | ⇐⇐⇐                 |        |        | ⇐⇐⇐             |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left        | Thru   | Right  | Left                | Thru   | Right  | Left            | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00       | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  | 12.00           | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1           | 0      | 1      | 2                   | 0      | 1      | 1               | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00          | 100.00 | 250.00 | 280.00      | 100.00 | 190.00 | 350.00              | 100.00 | 300.00 | 265.00          | 100.00 | 130.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00        | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00       |        |        | 35.00               |        |        | 30.00           |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00        |        |        | 0.00                |        |        | 0.00            |        |        |
| Curb Present                 | Yes             |        |        | Yes         |        |        | Yes                 |        |        | Yes             |        |        |
| Crosswalk                    | No              |        |        | No          |        |        | Yes                 |        |        | Yes             |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Old Meridian Rd |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|-----------------|--------|--------|
| Base Volume Input [veh/h]                   | 56              | 186    | 8      | 24          | 295    | 19     | 26                  | 32     | 78     | 20              | 29     | 42     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328      | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Site-Generated Trips [veh/h]                | 22              | 0      | 0      | 0           | 0      | 11     | 32                  | 11     | 85     | 0               | 11     | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 136             | 378    | 16     | 49          | 600    | 50     | 85                  | 76     | 244    | 41              | 70     | 85     |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500      | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 36              | 99     | 4      | 13          | 158    | 13     | 22                  | 20     | 64     | 11              | 18     | 22     |
| Total Analysis Volume [veh/h]               | 143             | 398    | 17     | 52          | 632    | 53     | 89                  | 80     | 257    | 43              | 74     | 89     |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No              |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0               | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0               |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 9       | 30      | 0       | 54       | 21      | 0       | 11      | 21      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L    | C     | R    | L    | C     | R     | L     | C     | R     | L     | C     | R     |
|---|------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 60   | 60    | 60   | 60   | 60    | 60    | 60    | 60    | 60    | 60    | 60    | 60    |
| L, Total Lost Time per Cycle [s]        | 4.00 | 4.00  | 4.00 | 4.00 | 4.00  | 4.00  | 0.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00 | 0.00  | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00 | 2.00  | 2.00 | 0.00 | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 35   | 26    | 26   | 35   | 26    | 26    | 0     | 17    | 17    | 17    | 17    | 17    |
| g / C, Green / Cycle                    | 0.58 | 0.43  | 0.43 | 0.58 | 0.43  | 0.43  | 0.00  | 0.28  | 0.28  | 0.28  | 0.28  | 0.28  |
| (v / s)_i Volume / Saturation Flow Rate | 0.16 | 0.12  | 0.01 | 0.05 | 0.20  | 0.04  | 0.10  | 0.05  | 0.18  | 0.04  | 0.02  | 0.06  |
| s, saturation flow rate [veh/h]         | 893  | 3204  | 1431 | 1031 | 3204  | 1431  | 892   | 1683  | 1431  | 1186  | 3204  | 1431  |
| c, Capacity [veh/h]                     | 595  | 1389  | 620  | 703  | 1389  | 620   | 120   | 477   | 405   | 374   | 908   | 405   |
| d1, Uniform Delay [s]                   | 6.45 | 11.00 | 9.75 | 5.59 | 12.00 | 10.00 | 30.00 | 16.18 | 18.78 | 19.22 | 15.77 | 16.43 |
| k, delay calibration                    | 0.50 | 0.50  | 0.50 | 0.50 | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.96 | 0.52  | 0.08 | 0.20 | 1.08  | 0.27  | 33.44 | 0.76  | 7.37  | 0.62  | 0.18  | 1.25  |
| d3, Initial Queue Delay [s]             | 0.00 | 0.00  | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |       |      |       |        |       |       |       |        |       |       |       |
|---------------------------------------|-------|-------|------|-------|--------|-------|-------|-------|--------|-------|-------|-------|
| X, volume / capacity                  | 0.24  | 0.29  | 0.03 | 0.07  | 0.46   | 0.09  | 0.74  | 0.17  | 0.63   | 0.11  | 0.08  | 0.22  |
| d, Delay for Lane Group [s/veh]       | 7.40  | 11.52 | 9.83 | 5.79  | 13.08  | 10.28 | 63.44 | 16.94 | 26.15  | 19.84 | 15.95 | 17.68 |
| Lane Group LOS                        | A     | B     | A    | A     | B      | B     | E     | B     | C      | B     | B     | B     |
| Critical Lane Group                   | Yes   | No    | No   | No    | Yes    | No    | No    | No    | Yes    | No    | No    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.76  | 1.54  | 0.12 | 0.25  | 2.70   | 0.40  | 1.23  | 0.84  | 3.60   | 0.52  | 0.37  | 1.00  |
| 50th-Percentile Queue Length [ft/ln]  | 19.00 | 38.49 | 3.08 | 6.15  | 67.53  | 9.88  | 30.69 | 21.06 | 89.92  | 13.01 | 9.13  | 25.00 |
| 95th-Percentile Queue Length [veh/ln] | 1.37  | 2.77  | 0.22 | 0.44  | 4.86   | 0.71  | 2.21  | 1.52  | 6.47   | 0.94  | 0.66  | 1.80  |
| 95th-Percentile Queue Length [ft/ln]  | 34.19 | 69.27 | 5.54 | 11.07 | 121.55 | 17.79 | 55.24 | 37.92 | 161.85 | 23.42 | 16.44 | 45.00 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 7.40  | 11.52 | 9.83 | 5.79  | 13.08 | 10.28 | 63.44 | 16.94 | 26.15 | 19.84 | 15.95 | 17.68 |
| Movement LOS                    | A     | B     | A    | A     | B     | B     | E     | B     | C     | B     | B     | B     |
| d_A, Approach Delay [s/veh]     | 10.41 |       |      | 12.36 |       |       | 32.21 |       |       | 17.51 |       |       |
| Approach LOS                    | B     |       |      | B     |       |       | C     |       |       | B     |       |       |
| d_I, Intersection Delay [s/veh] | 16.74 |       |      |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | B     |       |      |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.424 |       |      |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 21.68 |  |  | 21.68 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.660 |  |  | 2.384 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | B     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 867   |  |  | 867   |  |  | 567   |  |  | 567   |  |  |
| d_b, Bicycle Delay [s]                                   | 9.63  |  |  | 9.63  |  |  | 15.41 |  |  | 15.41 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 2.020 |  |  | 2.168 |  |  | 2.263 |  |  | 1.730 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | B     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |





**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 24.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.551 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | New Meridian Rd   |        |        | US 24   |        |        | US 24   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 2      | 2   | 0      | 1      | 2   | 0      | 1      |
| Entry Pocket Length [ft]     | 350.00  | 100.00 | 343.00 | 200.00  | 100.00 | 220.00 | 350.00  | 100.00 | 350.00 | 390.00  | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 55.00   |        |        | 55.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 5               | 214    | 52     | 19              | 123    | 306    | 74     | 382    | 0      | 66     | 744    | 1      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 11     | 0      | 21              | 32     | 32     | 11     | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 10              | 446    | 106    | 60              | 282    | 654    | 161    | 777    | 0      | 134    | 1512   | 2      |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 3               | 117    | 28     | 16              | 74     | 172    | 42     | 204    | 0      | 35     | 398    | 1      |
| Total Analysis Volume [veh/h]               | 11              | 469    | 112    | 63              | 297    | 688    | 169    | 818    | 0      | 141    | 1592   | 2      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0               |        |        | 0      |        |        | 0      |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 90                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 9       | 30      | 0       | 9       | 42      | 0       | 9       | 42      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R    | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| C, Cycle Length [s]                     | 90    | 90    | 90    | 90    | 90    | 90    | 90   | 90    | 90    | 90    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00 | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00 | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 35    | 26    | 35    | 26    | 47    | 38    | 38   | 47    | 38    | 38    |
| g / C, Green / Cycle                    | 0.39  | 0.29  | 0.39  | 0.29  | 0.52  | 0.42  | 0.42 | 0.52  | 0.42  | 0.42  |
| (v / s)_i Volume / Saturation Flow Rate | 0.01  | 0.15  | 0.06  | 0.09  | 0.18  | 0.18  | 0.00 | 0.10  | 0.35  | 0.00  |
| s, saturation flow rate [veh/h]         | 1100  | 3204  | 986   | 3204  | 940   | 4584  | 1431 | 1458  | 4584  | 1431  |
| c, Capacity [veh/h]                     | 473   | 926   | 398   | 926   | 468   | 1936  | 604  | 764   | 1936  | 604   |
| d1, Uniform Delay [s]                   | 17.16 | 26.66 | 18.22 | 25.08 | 16.95 | 18.28 | 0.00 | 11.57 | 23.01 | 15.04 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50 | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.09  | 1.98  | 0.85  | 0.92  | 2.16  | 0.68  | 0.00 | 0.53  | 4.10  | 0.01  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |        |       |        |      |       |        |       |
|---------------------------------------|-------|--------|-------|--------|-------|--------|------|-------|--------|-------|
| X, volume / capacity                  | 0.02  | 0.51   | 0.16  | 0.32   | 0.36  | 0.42   | 0.00 | 0.18  | 0.82   | 0.00  |
| d, Delay for Lane Group [s/veh]       | 17.25 | 28.64  | 19.07 | 26.00  | 19.11 | 18.96  | 0.00 | 12.10 | 27.11  | 15.05 |
| Lane Group LOS                        | B     | C      | B     | C      | B     | B      | A    | B     | C      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No     | Yes   | No     | No   | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.15  | 4.28   | 0.89  | 2.52   | 0.85  | 3.58   | 0.00 | 0.64  | 9.21   | 0.02  |
| 50th-Percentile Queue Length [ft/ln]  | 3.67  | 107.09 | 22.30 | 62.96  | 21.21 | 89.53  | 0.00 | 16.04 | 230.22 | 0.56  |
| 95th-Percentile Queue Length [veh/ln] | 0.26  | 7.68   | 1.61  | 4.53   | 1.53  | 6.45   | 0.00 | 1.15  | 14.19  | 0.04  |
| 95th-Percentile Queue Length [ft/ln]  | 6.60  | 191.95 | 40.13 | 113.32 | 38.17 | 161.15 | 0.00 | 28.87 | 354.64 | 1.01  |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |      |       |       |      |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 17.25 | 28.64 | 0.00 | 19.07 | 26.00 | 0.00 | 19.11 | 18.96 | 0.00 | 12.10 | 27.11 | 15.05 |
| Movement LOS                    | B     | C     |      | B     | C     |      | B     | B     | A    | B     | C     | B     |
| d_A, Approach Delay [s/veh]     | 28.38 |       |      | 24.78 |       |      | 18.99 |       |      | 25.88 |       |       |
| Approach LOS                    | C     |       |      | C     |       |      | B     |       |      | C     |       |       |
| d_I, Intersection Delay [s/veh] | 24.19 |       |      |       |       |      |       |       |      |       |       |       |
| Intersection LOS                | C     |       |      |       |       |      |       |       |      |       |       |       |
| Intersection V/C                | 0.551 |       |      |       |       |      |       |       |      |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 36.45 | 36.45 | 36.45 | 36.45 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.718 | 2.865 | 3.436 | 3.463 |
| Crosswalk LOS  | B     | C     | C     | C     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 578   | 578   | 844   | 844   |
| d_b, Bicycle Delay [s]                                   | 22.76 | 22.76 | 15.02 | 15.02 |
| I_b,int, Bicycle LOS Score for Intersection              | 1.956 | 1.857 | 2.102 | 2.514 |
| Bicycle LOS  | A     | A     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 1: Woodmen Rd/Golden Sage Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 35.9  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.736 |

**Intersection Setup**

| Name                         | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|------------------------------|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| Approach                     | Northbound     |        |        | Southbound     |        |        | Eastbound  |        |        | Westbound  |        |        |
| Lane Configuration           | ↵↵↵            |        |        | ↵↵↵            |        |        | ↵↵↵↵↵      |        |        | ↵↵↵↵↵      |        |        |
| Turning Movement             | Left           | Thru   | Right  | Left           | Thru   | Right  | Left       | Thru   | Right  | Left       | Thru   | Right  |
| Lane Width [ft]              | 12.00          | 12.00  | 12.00  | 12.00          | 15.00  | 15.00  | 12.00      | 12.00  | 12.00  | 12.00      | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1              | 0      | 1      | 2              | 0      | 0      | 1          | 0      | 1      | 1          | 0      | 1      |
| Entry Pocket Length [ft]     | 380.00         | 100.00 | 200.00 | 95.00          | 100.00 | 100.00 | 470.00     | 100.00 | 390.00 | 470.00     | 100.00 | 380.00 |
| No. of Lanes in Exit Pocket  | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00           | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00       | 0.00   | 0.00   | 0.00       | 0.00   | 0.00   |
| Speed [mph]                  | 35.00          |        |        | 30.00          |        |        | 55.00      |        |        | 55.00      |        |        |
| Grade [%]                    | 0.00           |        |        | 0.00           |        |        | 0.00       |        |        | 0.00       |        |        |
| Curb Present                 | No             |        |        | No             |        |        | No         |        |        | No         |        |        |
| Crosswalk                    | Yes            |        |        | Yes            |        |        | Yes        |        |        | Yes        |        |        |

**Volumes**

| Name  | Golden Sage Rd |        |        | Golden Sage Rd |        |        | Woodmen Rd |        |        | Woodmen Rd |        |        |
|---|----------------|--------|--------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
|   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Input [veh/h]                   | 83             | 39     | 13     | 64             | 10     | 103    | 90         | 1455   | 106    | 12         | 1060   | 42     |
| Base Volume Adjustment Factor               | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00           | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   | 2.00       | 2.00   | 2.00   |
| Growth Factor                               | 2.0328         | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 | 2.0328     | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Site-Generated Trips [veh/h]                | 29             | 0      | 7      | 0              | 0      | 0      | 0          | 0      | 48     | 12         | 0      | 0      |
| Diverted Trips [veh/h]                      | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Other Volume [veh/h]                        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 198            | 79     | 33     | 130            | 20     | 209    | 183        | 2958   | 263    | 36         | 2155   | 85     |
| Peak Hour Factor                            | 0.9500         | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 | 0.9500     | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000         | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 | 1.0000     | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 52             | 21     | 9      | 34             | 5      | 55     | 48         | 778    | 69     | 9          | 567    | 22     |
| Total Analysis Volume [veh/h]               | 208            | 83     | 35     | 137            | 21     | 220    | 193        | 3114   | 277    | 38         | 2268   | 89     |
| Presence of On-Street Parking               | No             |        | No     | No             |        | No     | No         |        | No     | No         |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0              | 0      | 0      | 0              | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |
| Bicycle Volume [bicycles/h]                 |                | 0      |        |                | 0      |        |            | 0      |        |            | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 150                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fully actuated                        |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|----------|---------|---------|
| Signal Group                 | 0       | 6       | 0       | 0       | 2       | 0       | 3        | 8       | 0       | 7        | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |          |         |         |
| Lead / Lag                   | -       | -       | -       | -       | -       | -       | Lead     | -       | -       | Lead     | -       | -       |
| Minimum Green [s]            | 0       | 10      | 0       | 0       | 10      | 0       | 5        | 10      | 0       | 5        | 10      | 0       |
| Maximum Green [s]            | 0       | 30      | 0       | 0       | 30      | 0       | 30       | 30      | 0       | 30       | 30      | 0       |
| Amber [s]                    | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     |
| All red [s]                  | 0.0     | 1.0     | 0.0     | 0.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     |
| Split [s]                    | 0       | 53      | 0       | 0       | 53      | 0       | 28       | 23      | 0       | 74       | 69      | 0       |
| Vehicle Extension [s]        | 0.0     | 3.0     | 0.0     | 0.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0        | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 44      | 0       | 0       | 44      | 0       | 0        | 14      | 0       | 0        | 11      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |          | No      |         |
| I1, Start-Up Lost Time [s]   | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 0.0     | 2.0     | 0.0     | 0.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     |
| Minimum Recall               |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Maximum Recall               |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Pedestrian Recall            |         | No      |         |         | No      |         | No       | No      |         | No       | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |



**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   | 150   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 2.00  | 0.00  | 0.00  | 2.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 49    | 49    | 49    | 49    | 49    | 20    | 85    | 85    | 4     | 69    | 69    |
| g / C, Green / Cycle                    | 0.33  | 0.33  | 0.33  | 0.33  | 0.33  | 0.13  | 0.56  | 0.56  | 0.03  | 0.46  | 0.46  |
| (v / s)_i Volume / Saturation Flow Rate | 0.20  | 0.05  | 0.02  | 0.06  | 0.16  | 0.12  | 0.51  | 0.19  | 0.02  | 0.37  | 0.06  |
| s, saturation flow rate [veh/h]         | 1025  | 1683  | 1431  | 2298  | 1507  | 1603  | 6113  | 1431  | 1603  | 6113  | 1431  |
| c, Capacity [veh/h]                     | 240   | 549   | 467   | 690   | 492   | 212   | 3445  | 806   | 48    | 2819  | 660   |
| d1, Uniform Delay [s]                   | 61.95 | 35.77 | 34.86 | 41.38 | 40.48 | 64.09 | 29.07 | 17.69 | 72.18 | 34.57 | 23.18 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.16  | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 31.78 | 0.58  | 0.31  | 0.65  | 3.47  | 18.45 | 1.04  | 0.25  | 24.02 | 0.56  | 0.09  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |        |       |       |        |        |        |        |       |        |       |
|---------------------------------------|--------|--------|-------|-------|--------|--------|--------|--------|-------|--------|-------|
| X, volume / capacity                  | 0.87   | 0.15   | 0.08  | 0.20  | 0.49   | 0.91   | 0.90   | 0.34   | 0.79  | 0.80   | 0.13  |
| d, Delay for Lane Group [s/veh]       | 93.72  | 36.36  | 35.17 | 42.02 | 43.95  | 82.55  | 30.11  | 17.94  | 96.20 | 35.13  | 23.28 |
| Lane Group LOS                        | F      | D      | D     | D     | D      | F      | C      | B      | F     | D      | C     |
| Critical Lane Group                   | Yes    | No     | No    | No    | No     | No     | Yes    | No     | Yes   | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 10.13  | 2.27   | 0.94  | 2.04  | 7.70   | 8.13   | 22.68  | 4.91   | 1.74  | 16.71  | 1.76  |
| 50th-Percentile Queue Length [ft/ln]  | 253.34 | 56.68  | 23.39 | 50.95 | 192.39 | 203.26 | 567.05 | 122.82 | 43.44 | 417.85 | 44.12 |
| 95th-Percentile Queue Length [veh/ln] | 15.35  | 4.08   | 1.68  | 3.67  | 12.24  | 12.81  | 30.49  | 8.55   | 3.13  | 23.42  | 3.18  |
| 95th-Percentile Queue Length [ft/ln]  | 383.86 | 102.02 | 42.10 | 91.71 | 306.12 | 320.17 | 762.32 | 213.69 | 78.18 | 585.47 | 79.42 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 93.72 | 36.36 | 35.17 | 42.02 | 43.95 | 43.95 | 82.55 | 30.11 | 17.94 | 96.20 | 35.13 | 23.28 |
| Movement LOS                    | F     | D     | D     | D     | D     | D     | F     | C     | B     | F     | D     | C     |
| d_A, Approach Delay [s/veh]     | 72.83 |       |       | 43.25 |       |       | 31.99 |       |       | 35.66 |       |       |
| Approach LOS                    | E     |       |       | D     |       |       | C     |       |       | D     |       |       |
| d_I, Intersection Delay [s/veh] | 35.94 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | D     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.736 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 66.22 | 66.22 | 66.22 | 66.22 |
| l_p,int, Pedestrian LOS Score for Intersection           | 2.345 | 2.338 | 4.420 | 4.222 |
| Crosswalk LOS  | B     | B     | E     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 654   | 654   | 253   | 867   |
| d_b, Bicycle Delay [s]                                   | 33.96 | 33.96 | 57.16 | 24.05 |
| l_b,int, Bicycle LOS Score for Intersection              | 2.098 | 2.183 | 3.038 | 2.548 |
| Bicycle LOS  | B     | B     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 2: Rolling Thunder Way/Bridal Vail Way**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 26.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.100 |

**Intersection Setup**

| Name                         | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound      |        |        | Eastbound      |        |        | Westbound           |        |        |
| Lane Configuration           | +               |        |        | +               |        |        | +              |        |        | +                   |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left            | Thru   | Right  | Left           | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 14.00           | 14.00  | 14.00  | 14.00           | 14.00  | 14.00  | 10.00          | 14.00  | 14.00  | 10.00               | 14.00  | 14.00  |
| No. of Lanes in Entry Pocket | 0               | 0      | 0      | 0               | 0      | 0      | 1              | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00          | 100.00 | 100.00 | 100.00          | 100.00 | 100.00 | 100.00         | 100.00 | 100.00 | 150.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00            | 0.00   | 0.00   | 0.00           | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00           |        |        | 25.00           |        |        | 30.00          |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00            |        |        | 0.00           |        |        | 0.00                |        |        |
| Crosswalk                    | Yes             |        |        | Yes             |        |        | Yes            |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Bridal Vail Way |        |        | Bridal Vail Way |        |        | Golden Sage Rd |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|----------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 8               | 7      | 24     | 9               | 4      | 2      | 0              | 72     | 13     | 34                  | 108    | 6      |
| Base Volume Adjustment Factor           | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00           | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328         | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 22              | 0      | 63     | 0               | 0      | 0      | 0              | 24     | 36     | 108                 | 14     | 0      |
| Diverted Trips [veh/h]                  | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0               | 0      | 0      | 0               | 0      | 0      | 0              | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 38              | 14     | 112    | 18              | 8      | 4      | 0              | 170    | 62     | 177                 | 234    | 12     |
| Peak Hour Factor                        | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500         | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000         | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 10              | 4      | 29     | 5               | 2      | 1      | 0              | 45     | 16     | 47                  | 62     | 3      |
| Total Analysis Volume [veh/h]           | 40              | 15     | 118    | 19              | 8      | 4      | 0              | 179    | 65     | 186                 | 246    | 13     |
| Pedestrian Volume [ped/h]               | 0               |        |        | 0               |        |        | 0              |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |       |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|-------|------|------|
| V/C, Movement V/C Ratio               | 0.16  | 0.06  | 0.14  | 0.10  | 0.03  | 0.01  | 0.00 | 0.00 | 0.00 | 0.14  | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 23.88 | 23.18 | 13.59 | 26.57 | 21.97 | 12.11 | 7.76 | 0.00 | 0.00 | 8.17  | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | D     | C     | B     | A    | A    | A    | A     | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 1.64  | 1.64  | 1.64  | 0.47  | 0.47  | 0.47  | 0.00 | 0.00 | 0.00 | 0.49  | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 40.98 | 40.98 | 40.98 | 11.74 | 11.74 | 11.74 | 0.00 | 0.00 | 0.00 | 12.24 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 16.80 |       |       | 23.51 |       |       | 0.00 |      |      | 3.41  |      |      |
| Approach LOS                          | C     |       |       | C     |       |       | A    |      |      | A     |      |      |
| d_I, Intersection Delay [s/veh]       | 5.77  |       |       |       |       |       |      |      |      |       |      |      |
| Intersection LOS                      | D     |       |       |       |       |       |      |      |      |       |      |      |

**Intersection Level Of Service Report**

**Intersection 3: Rolling Thunder Way/Antelope Meadows Circle (E)**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Two-way stop    | Delay (sec / veh):        | 27.1  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | D     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.134 |

**Intersection Setup**

| Name                         | Antelope Meadows Circle |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound              |        |        | Southbound              |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | +                       |        |        | +                       |        |        | ←↑                  |        |        | ←↑                  |        |        |
| Turning Movement             | Left                    | Thru   | Right  | Left                    | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 15.00                   | 15.00  | 15.00  | 15.00                   | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  | 10.00               | 15.00  | 15.00  |
| No. of Lanes in Entry Pocket | 0                       | 0      | 0      | 0                       | 0      | 0      | 1                   | 0      | 0      | 1                   | 0      | 0      |
| Entry Pocket Length [ft]     | 100.00                  | 100.00 | 100.00 | 100.00                  | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 | 100.00              | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00                    | 0.00   | 0.00   | 0.00                    | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 25.00                   |        |        | 25.00                   |        |        | 35.00               |        |        | 35.00               |        |        |
| Grade [%]                    | 0.00                    |        |        | 0.00                    |        |        | 0.00                |        |        | 0.00                |        |        |
| Crosswalk                    | Yes                     |        |        | Yes                     |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name                                    | Antelope Meadows Circle |        |        | Antelope Meadows Circle |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-------------------------|--------|--------|-------------------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]               | 4                       | 0      | 16     | 12                      | 0      | 2      | 2                   | 83     | 3      | 13                  | 161    | 25     |
| Base Volume Adjustment Factor           | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]           | 2.00                    | 2.00   | 2.00   | 2.00                    | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                           | 2.0328                  | 2.0328 | 2.0328 | 2.0328                  | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]               | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]            | 14                      | 0      | 42     | 0                       | 0      | 0      | 0                   | 63     | 24     | 72                  | 108    | 0      |
| Diverted Trips [veh/h]                  | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                   | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h] | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                    | 0                       | 0      | 0      | 0                       | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]             | 22                      | 0      | 75     | 24                      | 0      | 4      | 4                   | 232    | 30     | 98                  | 435    | 51     |
| Peak Hour Factor                        | 0.9500                  | 0.9500 | 0.9500 | 0.9500                  | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                 | 1.0000                  | 1.0000 | 1.0000 | 1.0000                  | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]          | 6                       | 0      | 20     | 6                       | 0      | 1      | 1                   | 61     | 8      | 26                  | 114    | 13     |
| Total Analysis Volume [veh/h]           | 23                      | 0      | 79     | 25                      | 0      | 4      | 4                   | 244    | 32     | 103                 | 458    | 54     |
| Pedestrian Volume [ped/h]               | 0                       |        |        | 0                       |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                                    |      |      |      |      |
|------------------------------------|------|------|------|------|
| Priority Scheme                    | Stop | Stop | Free | Free |
| Flared Lane                        | No   | No   |      |      |
| Storage Area [veh]                 | 0    | 0    | 0    | 0    |
| Two-Stage Gap Acceptance           | No   | No   |      |      |
| Number of Storage Spaces in Median | 0    | 0    | 0    | 0    |

**Movement, Approach, & Intersection Results**

|                                       |       |       |       |       |       |       |      |      |      |      |      |      |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio               | 0.10  | 0.00  | 0.10  | 0.13  | 0.00  | 0.01  | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh]       | 23.30 | 22.74 | 11.51 | 27.08 | 23.45 | 14.02 | 8.43 | 0.00 | 0.00 | 8.04 | 0.00 | 0.00 |
| Movement LOS                          | C     | C     | B     | D     | C     | B     | A    | A    | A    | A    | A    | A    |
| 95th-Percentile Queue Length [veh/ln] | 0.77  | 0.77  | 0.77  | 0.48  | 0.48  | 0.48  | 0.01 | 0.00 | 0.00 | 0.26 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln]  | 19.20 | 19.20 | 19.20 | 12.00 | 12.00 | 12.00 | 0.29 | 0.00 | 0.00 | 6.51 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh]           | 14.17 |       |       | 25.27 |       |       | 0.12 |      |      | 1.35 |      |      |
| Approach LOS                          | B     |       |       | D     |       |       | A    |      |      | A    |      |      |
| d_I, Intersection Delay [s/veh]       | 2.96  |       |       |       |       |       |      |      |      |      |      |      |
| Intersection LOS                      | D     |       |       |       |       |       |      |      |      |      |      |      |

**Intersection Level Of Service Report**  
**Intersection 4: Rolling Thunder Way/Foxtail Meadow Ln**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 11.5  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | B     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.380 |

**Intersection Setup**

| Name                         | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|------------------------------|-------------------|--------|---------------------|--------|---------------------|--------|
| Approach                     | Southbound        |        | Eastbound           |        | Westbound           |        |
| Lane Configuration           | ↔↔                |        | ↔↑                  |        | ↑↔                  |        |
| Turning Movement             | Left              | Right  | Left                | Thru   | Thru                | Right  |
| Lane Width [ft]              | 12.00             | 12.00  | 12.00               | 12.00  | 12.00               | 12.00  |
| No. of Lanes in Entry Pocket | 0                 | 1      | 1                   | 0      | 0                   | 0      |
| Entry Pocket Length [ft]     | 100.00            | 170.00 | 135.00              | 100.00 | 100.00              | 100.00 |
| No. of Lanes in Exit Pocket  | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Exit Pocket Length [ft]      | 0.00              | 0.00   | 0.00                | 0.00   | 0.00                | 0.00   |
| Speed [mph]                  | 35.00             |        | 35.00               |        | 35.00               |        |
| Grade [%]                    | 0.00              |        | 0.00                |        | 0.00                |        |
| Curb Present                 | Yes               |        | Yes                 |        | Yes                 |        |
| Crosswalk                    | Yes               |        | Yes                 |        | Yes                 |        |

**Volumes**

| Name  | Foxtail Meadow Ln |        | Rolling Thunder Way |        | Rolling Thunder Way |        |
|---|-------------------|--------|---------------------|--------|---------------------|--------|
|   |                   |        |                     |        |                     |        |
| Base Volume Input [veh/h]                   | 63                | 35     | 21                  | 91     | 162                 | 27     |
| Base Volume Adjustment Factor               | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00              | 2.00   | 2.00                | 2.00   | 2.00                | 2.00   |
| Growth Factor                               | 2.0328            | 2.0328 | 2.0328              | 2.0328 | 2.0328              | 2.0328 |
| In-Process Volume [veh/h]                   | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Site-Generated Trips [veh/h]                | 0                 | 36     | 21                  | 84     | 144                 | 0      |
| Diverted Trips [veh/h]                      | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Pass-by Trips [veh/h]                       | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Other Volume [veh/h]                        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Right Turn on Red Volume [veh/h]            | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Total Hourly Volume [veh/h]                 | 128               | 107    | 64                  | 269    | 473                 | 55     |
| Peak Hour Factor                            | 0.9500            | 0.9500 | 0.9500              | 0.9500 | 0.9500              | 0.9500 |
| Other Adjustment Factor                     | 1.0000            | 1.0000 | 1.0000              | 1.0000 | 1.0000              | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 34                | 28     | 17                  | 71     | 124                 | 14     |
| Total Analysis Volume [veh/h]               | 135               | 113    | 67                  | 283    | 498                 | 58     |
| Presence of On-Street Parking               | No                | No     | No                  | No     | No                  | No     |
| On-Street Parking Maneuver Rate [/h]        | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| Local Bus Stopping Rate [/h]                | 0                 | 0      | 0                   | 0      | 0                   | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_di, Inbound Pedestrian Volume crossing in | 0                 |        | 0                   |        | 0                   |        |
| v_co, Outbound Pedestrian Volume crossing   | 0                 |        | 0                   |        | 0                   |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0                 |        | 0                   |        | 0                   |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0                 |        | 0                   |        | 0                   |        |
| Bicycle Volume [bicycles/h]                 | 0                 |        | 0                   |        | 0                   |        |



**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 60                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | Permissive | Permissive | Permissive | Permissive | Permissive | Permissive |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Signal Group                 | 7          | 0          | 0          | 2          | 6          | 0          |
| Auxiliary Signal Groups      |            |            |            |            |            |            |
| Lead / Lag                   | Lead       | -          | -          | -          | -          | -          |
| Minimum Green [s]            | 5          | 0          | 0          | 10         | 10         | 0          |
| Maximum Green [s]            | 30         | 0          | 0          | 30         | 30         | 0          |
| Amber [s]                    | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| All red [s]                  | 1.0        | 0.0        | 0.0        | 1.0        | 1.0        | 0.0        |
| Split [s]                    | 23         | 0          | 0          | 37         | 37         | 0          |
| Vehicle Extension [s]        | 3.0        | 0.0        | 0.0        | 3.0        | 3.0        | 0.0        |
| Walk [s]                     | 5          | 0          | 0          | 5          | 5          | 0          |
| Pedestrian Clearance [s]     | 10         | 0          | 0          | 10         | 10         | 0          |
| Delayed Vehicle Green [s]    | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Rest In Walk                 | No         |            |            | No         | No         |            |
| I1, Start-Up Lost Time [s]   | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| I2, Clearance Lost Time [s]  | 2.0        | 0.0        | 0.0        | 2.0        | 2.0        | 0.0        |
| Minimum Recall               | No         |            |            | No         | No         |            |
| Maximum Recall               | No         |            |            | No         | No         |            |
| Pedestrian Recall            | No         |            |            | No         | No         |            |
| Detector Location [ft]       | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| Detector Length [ft]         | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| I, Upstream Filtering Factor | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | R     | L     | C    | C    | R    |
|---|-------|-------|-------|------|------|------|
| C, Cycle Length [s]                     | 60    | 60    | 60    | 60   | 60   | 60   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 2.00  | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s]             | 2.00  | 2.00  | 2.00  | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s]           | 19    | 19    | 33    | 33   | 33   | 33   |
| g / C, Green / Cycle                    | 0.32  | 0.32  | 0.55  | 0.55 | 0.55 | 0.55 |
| (v / s)_i Volume / Saturation Flow Rate | 0.08  | 0.08  | 0.08  | 0.17 | 0.30 | 0.04 |
| s, saturation flow rate [veh/h]         | 1603  | 1431  | 810   | 1683 | 1683 | 1431 |
| c, Capacity [veh/h]                     | 508   | 453   | 385   | 926  | 926  | 787  |
| d1, Uniform Delay [s]                   | 15.30 | 15.21 | 14.79 | 7.30 | 8.63 | 6.33 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50 | 0.50 | 0.50 |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s]               | 1.28  | 1.32  | 0.98  | 0.85 | 2.24 | 0.18 |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

|                                       |       |       |       |       |        |       |
|---------------------------------------|-------|-------|-------|-------|--------|-------|
| X, volume / capacity                  | 0.27  | 0.25  | 0.17  | 0.31  | 0.54   | 0.07  |
| d, Delay for Lane Group [s/veh]       | 16.58 | 16.53 | 15.77 | 8.16  | 10.87  | 6.51  |
| Lane Group LOS                        | B     | B     | B     | A     | B      | A     |
| Critical Lane Group                   | Yes   | No    | No    | No    | Yes    | No    |
| 50th-Percentile Queue Length [veh/ln] | 1.40  | 1.18  | 0.70  | 1.71  | 3.68   | 0.31  |
| 50th-Percentile Queue Length [ft/ln]  | 35.02 | 29.53 | 17.41 | 42.82 | 92.01  | 7.63  |
| 95th-Percentile Queue Length [veh/ln] | 2.52  | 2.13  | 1.25  | 3.08  | 6.62   | 0.55  |
| 95th-Percentile Queue Length [ft/ln]  | 63.04 | 53.15 | 31.34 | 77.08 | 165.62 | 13.73 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |      |       |      |
|---------------------------------|-------|-------|-------|------|-------|------|
| d_M, Delay for Movement [s/veh] | 16.58 | 16.53 | 15.77 | 8.16 | 10.87 | 6.51 |
| Movement LOS                    | B     | B     | B     | A    | B     | A    |
| d_A, Approach Delay [s/veh]     | 16.55 |       | 9.61  |      | 10.41 |      |
| Approach LOS                    | B     |       | A     |      | B     |      |
| d_I, Intersection Delay [s/veh] | 11.49 |       |       |      |       |      |
| Intersection LOS                | B     |       |       |      |       |      |
| Intersection V/C                | 0.380 |       |       |      |       |      |

**Other Modes**

|  |       |       |       |
|--|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 21.68 | 21.68 | 21.68 |
| I_p,int, Pedestrian LOS Score for Intersection           | 2.158 | 2.285 | 2.290 |
| Crosswalk LOS  | B     | B     | B     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 633   | 1100  | 1100  |
| d_b, Bicycle Delay [s]                                   | 14.01 | 6.08  | 6.08  |
| I_b,int, Bicycle LOS Score for Intersection              | 1.560 | 2.137 | 2.477 |
| Bicycle LOS  | A     | B     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**  
**Intersection 5: Rolling Thunder Way/Meridian Rd**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 21.2  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.498 |

**Intersection Setup**

| Name                         | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|------------------------------|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Approach                     | Northbound      |        |        | Southbound  |        |        | Eastbound           |        |        | Westbound           |        |        |
| Lane Configuration           | ⇐⇐⇐             |        |        | ⇐⇐⇐         |        |        | ⇐⇐⇐                 |        |        | ⇐⇐⇐                 |        |        |
| Turning Movement             | Left            | Thru   | Right  | Left        | Thru   | Right  | Left                | Thru   | Right  | Left                | Thru   | Right  |
| Lane Width [ft]              | 12.00           | 12.00  | 12.00  | 12.00       | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  | 12.00               | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1               | 0      | 1      | 1           | 0      | 1      | 2                   | 0      | 1      | 1                   | 0      | 1      |
| Entry Pocket Length [ft]     | 337.00          | 100.00 | 250.00 | 280.00      | 100.00 | 190.00 | 350.00              | 100.00 | 300.00 | 265.00              | 100.00 | 130.00 |
| No. of Lanes in Exit Pocket  | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00            | 0.00   | 0.00   | 0.00        | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   | 0.00                | 0.00   | 0.00   |
| Speed [mph]                  | 35.00           |        |        | 35.00       |        |        | 35.00               |        |        | 30.00               |        |        |
| Grade [%]                    | 0.00            |        |        | 0.00        |        |        | 0.00                |        |        | 0.00                |        |        |
| Curb Present                 | Yes             |        |        | Yes         |        |        | Yes                 |        |        | Yes                 |        |        |
| Crosswalk                    | No              |        |        | No          |        |        | Yes                 |        |        | Yes                 |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | Meridian Rd |        |        | Rolling Thunder Way |        |        | Rolling Thunder Way |        |        |
|---|-----------------|--------|--------|-------------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|
| Base Volume Input [veh/h]                   | 80              | 386    | 33     | 72          | 187    | 47     | 43                  | 32     | 69     | 22                  | 47     | 98     |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00        | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   | 2.00                | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328      | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 | 2.0328              | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Site-Generated Trips [veh/h]                | 72              | 0      | 0      | 0           | 0      | 36     | 21                  | 7      | 56     | 0                   | 36     | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 235             | 785    | 67     | 146         | 380    | 132    | 108                 | 72     | 196    | 45                  | 132    | 199    |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500      | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 | 0.9500              | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000      | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 | 1.0000              | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 62              | 207    | 18     | 38          | 100    | 35     | 28                  | 19     | 52     | 12                  | 35     | 52     |
| Total Analysis Volume [veh/h]               | 247             | 826    | 71     | 154         | 400    | 139    | 114                 | 76     | 206    | 47                  | 139    | 209    |
| Presence of On-Street Parking               | No              |        | No     | No          |        | No     | No                  |        | No     | No                  |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0           | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_di, Inbound Pedestrian Volume crossing in | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_co, Outbound Pedestrian Volume crossing   | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ci, Inbound Pedestrian Volume crossing mi | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| v_ab, Corner Pedestrian Volume [ped/h]      | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |
| Bicycle Volume [bicycles/h]                 | 0               |        |        | 0           |        |        | 0                   |        |        | 0                   |        |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 70                                    |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| Signal Group                 | 3       | 8       | 0       | 7       | 4       | 0       | 5        | 2       | 0       | 1       | 6       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |          |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead     | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5        | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30       | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0      | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 30      | 0       | 9       | 30      | 0       | 11       | 22      | 0       | 9       | 20      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0      | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0        | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 21      | 0       | 0       | 21      | 0       | 0        | 10      | 0       | 0       | 10      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |          | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0      | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No       | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00     | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | R     | L     | C     | R     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 35    | 26    | 26    | 35    | 26    | 26    | 7     | 18    | 18    | 27    | 16    | 16    |
| g / C, Green / Cycle                    | 0.50  | 0.37  | 0.37  | 0.50  | 0.37  | 0.37  | 0.10  | 0.26  | 0.26  | 0.39  | 0.23  | 0.23  |
| (v / s)_i Volume / Saturation Flow Rate | 0.24  | 0.26  | 0.05  | 0.19  | 0.12  | 0.10  | 0.04  | 0.05  | 0.14  | 0.04  | 0.04  | 0.15  |
| s, saturation flow rate [veh/h]         | 1029  | 3204  | 1431  | 798   | 3204  | 1431  | 3113  | 1683  | 1431  | 1298  | 3204  | 1431  |
| c, Capacity [veh/h]                     | 584   | 1190  | 531   | 417   | 1190  | 531   | 311   | 433   | 368   | 607   | 732   | 327   |
| d1, Uniform Delay [s]                   | 10.73 | 18.63 | 14.55 | 11.93 | 15.80 | 15.32 | 29.43 | 20.23 | 22.56 | 13.65 | 21.77 | 24.39 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 2.24  | 3.35  | 0.52  | 2.50  | 0.76  | 1.20  | 3.30  | 0.88  | 6.04  | 0.25  | 0.57  | 9.23  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, 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  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |        |        |       |       |       |       |       |       |        |       |       |        |
|---------------------------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|
| X, volume / capacity                  | 0.42   | 0.69   | 0.13  | 0.37  | 0.34  | 0.26  | 0.37  | 0.18  | 0.56   | 0.08  | 0.19  | 0.64   |
| d, Delay for Lane Group [s/veh]       | 12.97  | 21.98  | 15.07 | 14.43 | 16.56 | 16.51 | 32.73 | 21.11 | 28.61  | 13.90 | 22.35 | 33.62  |
| Lane Group LOS                        | B      | C      | B     | B     | B     | B     | C     | C     | C      | B     | C     | C      |
| Critical Lane Group                   | No     | Yes    | No    | Yes   | No    | No    | Yes   | No    | No     | No    | No    | Yes    |
| 50th-Percentile Queue Length [veh/ln] | 2.29   | 5.62   | 0.76  | 1.42  | 2.21  | 1.58  | 0.99  | 1.01  | 3.35   | 0.48  | 0.94  | 3.80   |
| 50th-Percentile Queue Length [ft/ln]  | 57.35  | 140.59 | 18.94 | 35.40 | 55.21 | 39.48 | 24.85 | 25.21 | 83.63  | 12.02 | 23.47 | 95.09  |
| 95th-Percentile Queue Length [veh/ln] | 4.13   | 9.51   | 1.36  | 2.55  | 3.98  | 2.84  | 1.79  | 1.82  | 6.02   | 0.87  | 1.69  | 6.85   |
| 95th-Percentile Queue Length [ft/ln]  | 103.23 | 237.81 | 34.10 | 63.73 | 99.38 | 71.07 | 44.74 | 45.38 | 150.53 | 21.63 | 42.24 | 171.16 |

**Movement, Approach, & Intersection Results**

|                                 |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 12.97 | 21.98 | 15.07 | 14.43 | 16.56 | 16.51 | 32.73 | 21.11 | 28.61 | 13.90 | 22.35 | 33.62 |
| Movement LOS                    | B     | C     | B     | B     | B     | B     | C     | C     | C     | B     | C     | C     |
| d_A, Approach Delay [s/veh]     | 19.61 |       |       | 16.08 |       |       | 28.36 |       |       | 27.31 |       |       |
| Approach LOS                    | B     |       |       | B     |       |       | C     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 21.15 |       |       |       |       |       |       |       |       |       |       |       |
| Intersection LOS                | C     |       |       |       |       |       |       |       |       |       |       |       |
| Intersection V/C                | 0.498 |       |       |       |       |       |       |       |       |       |       |       |

**Other Modes**

|  |       |  |  |       |  |  |       |  |  |       |  |  |
|--|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| g_Walk,mi, Effective Walk Time [s]                       | 0.0   |  |  | 0.0   |  |  | 9.0   |  |  | 9.0   |  |  |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  | 0.00  |  |  |
| d_p, Pedestrian Delay [s]                                | 0.00  |  |  | 0.00  |  |  | 26.58 |  |  | 26.58 |  |  |
| I_p,int, Pedestrian LOS Score for Intersection           | 0.000 |  |  | 0.000 |  |  | 2.757 |  |  | 2.512 |  |  |
| Crosswalk LOS  | F     |  |  | F     |  |  | C     |  |  | B     |  |  |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  |  |  | 2000  |  |  | 2000  |  |  | 2000  |  |  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 743   |  |  | 743   |  |  | 514   |  |  | 457   |  |  |
| d_b, Bicycle Delay [s]                                   | 13.83 |  |  | 13.83 |  |  | 19.31 |  |  | 20.83 |  |  |
| I_b,int, Bicycle LOS Score for Intersection              | 2.503 |  |  | 2.131 |  |  | 2.213 |  |  | 1.885 |  |  |
| Bicycle LOS  | B     |  |  | B     |  |  | B     |  |  | A     |  |  |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |





**Intersection Level Of Service Report**  
**Intersection 11: New Meridian Rd/US 24**

|                  |                 |                           |       |
|------------------|-----------------|---------------------------|-------|
| Control Type:    | Signalized      | Delay (sec / veh):        | 33.6  |
| Analysis Method: | HCM 6th Edition | Level Of Service:         | C     |
| Analysis Period: | 15 minutes      | Volume to Capacity (v/c): | 0.708 |

**Intersection Setup**

| Name                         | New Meridian Rd   |        |        | New Meridian Rd   |        |        | US 24   |        |        | US 24   |        |        |
|------------------------------|---|--------|--------|---|--------|--------|---|--------|--------|---|--------|--------|
| Approach                     | Northbound  |        |        | Southbound  |        |        | Eastbound   |        |        | Westbound   |        |        |
| Lane Configuration           |  |        |        |  |        |        |  |        |        |  |        |        |
| Turning Movement             | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  | Left  | Thru   | Right  |
| Lane Width [ft]              | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  | 12.00   | 12.00  | 12.00  |
| No. of Lanes in Entry Pocket | 1   | 0      | 1      | 1   | 0      | 2      | 2   | 0      | 1      | 2   | 0      | 1      |
| Entry Pocket Length [ft]     | 406.00  | 100.00 | 343.00 | 200.00  | 100.00 | 220.00 | 350.00  | 100.00 | 350.00 | 390.00  | 100.00 | 800.00 |
| No. of Lanes in Exit Pocket  | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      | 0   | 0      | 0      |
| Exit Pocket Length [ft]      | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   |
| Speed [mph]                  | 35.00   |        |        | 35.00   |        |        | 55.00   |        |        | 55.00   |        |        |
| Grade [%]                    | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        | 0.00  |        |        |
| Curb Present                 | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |
| Crosswalk                    | Yes   |        |        | Yes   |        |        | Yes   |        |        | Yes   |        |        |

**Volumes**

| Name  | New Meridian Rd |        |        | New Meridian Rd |        |        | US 24  |        |        | US 24  |        |        |
|---|-----------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
|   |                 |        |        |                 |        |        |        |        |        |        |        |        |
| Base Volume Input [veh/h]                   | 2               | 339    | 68     | 36              | 259    | 144    | 293    | 768    | 1      | 184    | 496    | 2      |
| Base Volume Adjustment Factor               | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%]               | 2.00            | 2.00   | 2.00   | 2.00            | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   | 2.00   |
| Growth Factor                               | 2.0328          | 2.0328 | 2.0328 | 2.0328          | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 | 2.0328 |
| In-Process Volume [veh/h]                   | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Site-Generated Trips [veh/h]                | 0               | 36     | 0      | 14              | 21     | 21     | 36     | 0      | 0      | 0      | 0      | 0      |
| Diverted Trips [veh/h]                      | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pass-by Trips [veh/h]                       | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Existing Site Adjustment Volume [veh/h]     | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Other Volume [veh/h]                        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Right Turn on Red Volume [veh/h]            | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Total Hourly Volume [veh/h]                 | 4               | 725    | 138    | 87              | 547    | 314    | 632    | 1561   | 2      | 374    | 1008   | 4      |
| Peak Hour Factor                            | 0.9500          | 0.9500 | 0.9500 | 0.9500          | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor                     | 1.0000          | 1.0000 | 1.0000 | 1.0000          | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h]              | 1               | 191    | 36     | 23              | 144    | 83     | 166    | 411    | 1      | 98     | 265    | 1      |
| Total Analysis Volume [veh/h]               | 4               | 763    | 145    | 92              | 576    | 331    | 665    | 1643   | 2      | 394    | 1061   | 4      |
| Presence of On-Street Parking               | No              |        | No     | No              |        | No     | No     |        | No     | No     |        | No     |
| On-Street Parking Maneuver Rate [/h]        | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Local Bus Stopping Rate [/h]                | 0               | 0      | 0      | 0               | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| v_do, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_di, Inbound Pedestrian Volume crossing in |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_co, Outbound Pedestrian Volume crossing   |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ci, Inbound Pedestrian Volume crossing mi |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| v_ab, Corner Pedestrian Volume [ped/h]      |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |
| Bicycle Volume [bicycles/h]                 |                 | 0      |        |                 | 0      |        |        | 0      |        |        | 0      |        |

**Intersection Settings**

|                           |                                       |
|---------------------------|---------------------------------------|
| Located in CBD            | Yes                                   |
| Signal Coordination Group | -                                     |
| Cycle Length [s]          | 100                                   |
| Coordination Type         | Time of Day Pattern Coordinated       |
| Actuation Type            | Fixed time                            |
| Offset [s]                | 0.0                                   |
| Offset Reference          | Lead Green - Beginning of First Green |
| Permissive Mode           | SingleBand                            |
| Lost time [s]             | 0.00                                  |

**Phasing & Timing**

| Control Type                 | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Unsigna | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Signal Group                 | 1       | 6       | 0       | 5       | 2       | 0       | 3       | 8       | 0       | 7       | 4       | 0       |
| Auxiliary Signal Groups      |         |         |         |         |         |         |         |         |         |         |         |         |
| Lead / Lag                   | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       | Lead    | -       | -       |
| Minimum Green [s]            | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       | 5       | 10      | 0       |
| Maximum Green [s]            | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       | 30      | 30      | 0       |
| Amber [s]                    | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| All red [s]                  | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     | 1.0     | 1.0     | 0.0     |
| Split [s]                    | 9       | 35      | 0       | 9       | 35      | 0       | 15      | 44      | 0       | 12      | 41      | 0       |
| Vehicle Extension [s]        | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     | 3.0     | 3.0     | 0.0     |
| Walk [s]                     | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       | 0       | 5       | 0       |
| Pedestrian Clearance [s]     | 0       | 17      | 0       | 0       | 10      | 0       | 0       | 10      | 0       | 0       | 32      | 0       |
| Delayed Vehicle Green [s]    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Rest In Walk                 |         | No      |         |         | No      |         |         | No      |         |         | No      |         |
| I1, Start-Up Lost Time [s]   | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| I2, Clearance Lost Time [s]  | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     | 2.0     | 2.0     | 0.0     |
| Minimum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Maximum Recall               | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Pedestrian Recall            | No      | No      |         | No      | No      |         | No      | No      |         | No      | No      |         |
| Detector Location [ft]       | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Detector Length [ft]         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| I, Upstream Filtering Factor | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Exclusive Pedestrian Phase**

|                          |   |
|--------------------------|---|
| Pedestrian Signal Group  | 0 |
| Pedestrian Walk [s]      | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group                              | L     | C     | L     | C     | L     | C     | R     | L     | C     | R     |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C, Cycle Length [s]                     | 100   | 100   | 100   | 100   | 100   | 100   | 100   | 100   | 100   | 100   |
| L, Total Lost Time per Cycle [s]        | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  |
| l1_p, Permitted Start-Up Lost Time [s]  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| l2, Clearance Lost Time [s]             | 0.00  | 2.00  | 0.00  | 2.00  | 0.00  | 2.00  | 2.00  | 0.00  | 2.00  | 2.00  |
| g_i, Effective Green Time [s]           | 40    | 31    | 40    | 31    | 52    | 40    | 40    | 52    | 37    | 37    |
| g / C, Green / Cycle                    | 0.40  | 0.31  | 0.40  | 0.31  | 0.52  | 0.40  | 0.40  | 0.52  | 0.37  | 0.37  |
| (v / s)_i Volume / Saturation Flow Rate | 0.00  | 0.24  | 0.11  | 0.18  | 0.45  | 0.36  | 0.00  | 0.38  | 0.23  | 0.00  |
| s, saturation flow rate [veh/h]         | 902   | 3204  | 803   | 3204  | 1475  | 4584  | 1431  | 1029  | 4584  | 1431  |
| c, Capacity [veh/h]                     | 351   | 993   | 289   | 993   | 725   | 1834  | 572   | 491   | 1696  | 529   |
| d1, Uniform Delay [s]                   | 19.19 | 31.24 | 21.82 | 29.02 | 19.51 | 28.05 | 18.03 | 21.52 | 25.82 | 19.90 |
| k, delay calibration                    | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  | 0.50  |
| l, Upstream Filtering Factor            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| d2, Incremental Delay [s]               | 0.06  | 5.69  | 2.89  | 2.47  | 18.41 | 7.31  | 0.01  | 13.03 | 1.75  | 0.03  |
| d3, Initial Queue Delay [s]             | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Rp, platoon ratio                       | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| PF, progression factor                  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |

**Lane Group Results**

|                                       |       |        |       |        |        |        |       |        |        |       |
|---------------------------------------|-------|--------|-------|--------|--------|--------|-------|--------|--------|-------|
| X, volume / capacity                  | 0.01  | 0.77   | 0.32  | 0.58   | 0.92   | 0.90   | 0.00  | 0.80   | 0.63   | 0.01  |
| d, Delay for Lane Group [s/veh]       | 19.25 | 36.94  | 24.71 | 31.49  | 37.92  | 35.37  | 18.04 | 34.55  | 27.57  | 19.93 |
| Lane Group LOS                        | B     | D      | C     | C      | D      | D      | B     | C      | C      | B     |
| Critical Lane Group                   | No    | Yes    | Yes   | No     | No     | Yes    | No    | Yes    | No     | No    |
| 50th-Percentile Queue Length [veh/ln] | 0.06  | 8.82   | 1.55  | 5.98   | 5.79   | 12.04  | 0.03  | 2.99   | 6.48   | 0.06  |
| 50th-Percentile Queue Length [ft/ln]  | 1.50  | 220.62 | 38.87 | 149.45 | 144.78 | 300.89 | 0.68  | 74.71  | 161.95 | 1.45  |
| 95th-Percentile Queue Length [veh/ln] | 0.11  | 13.70  | 2.80  | 9.99   | 9.74   | 17.73  | 0.05  | 5.38   | 10.65  | 0.10  |
| 95th-Percentile Queue Length [ft/ln]  | 2.71  | 342.42 | 69.97 | 249.70 | 243.44 | 443.13 | 1.22  | 134.48 | 266.31 | 2.60  |

**Movement, Approach, & Intersection Results**

|                                 |       |       |      |       |       |      |       |       |       |       |       |       |
|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| d_M, Delay for Movement [s/veh] | 19.25 | 36.94 | 0.00 | 24.71 | 31.49 | 0.00 | 37.92 | 35.37 | 18.04 | 34.55 | 27.57 | 19.93 |
| Movement LOS                    | B     | D     |      | C     | C     |      | D     | D     | B     | C     | C     | B     |
| d_A, Approach Delay [s/veh]     | 36.84 |       |      | 30.56 |       |      | 36.08 |       |       | 29.44 |       |       |
| Approach LOS                    | D     |       |      | C     |       |      | D     |       |       | C     |       |       |
| d_I, Intersection Delay [s/veh] | 33.62 |       |      |       |       |      |       |       |       |       |       |       |
| Intersection LOS                | C     |       |      |       |       |      |       |       |       |       |       |       |
| Intersection V/C                | 0.708 |       |      |       |       |      |       |       |       |       |       |       |

**Other Modes**

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| g_Walk,mi, Effective Walk Time [s]                       | 9.0   | 9.0   | 9.0   | 9.0   |
| M_corner, Corner Circulation Area [ft <sup>2</sup> /ped] | 0.00  | 0.00  | 0.00  | 0.00  |
| M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]  | 0.00  | 0.00  | 0.00  | 0.00  |
| d_p, Pedestrian Delay [s]                                | 41.41 | 41.41 | 41.41 | 41.41 |
| I_p,int, Pedestrian LOS Score for Intersection           | 3.025 | 3.311 | 3.578 | 3.587 |
| Crosswalk LOS  | C     | C     | D     | D     |
| s_b, Saturation Flow Rate of the bicycle lane            | 2000  | 2000  | 2000  | 2000  |
| c_b, Capacity of the bicycle lane [bicycles/h]           | 620   | 620   | 800   | 740   |
| d_b, Bicycle Delay [s]                                   | 23.81 | 23.81 | 18.00 | 19.85 |
| I_b,int, Bicycle LOS Score for Intersection              | 2.192 | 2.111 | 2.830 | 2.362 |
| Bicycle LOS  | B     | B     | C     | B     |

**Sequence**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



# Traffic Impact Study\_V1 comment.pdf Markup Summary 12-14-2021

CDurham (42)

SKP-21-004

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SKP-21-004

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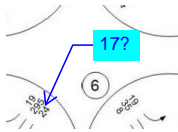
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**Author:** CDurham  
**Date:** 12/8/2021 10:38:32 AM  
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no listed above based on the traffic. The existing intersection geometry is shown as shown in Figures 4 and 5. closures currently operate in the AM and PM. As shown in the table, each of the open as (LOS) during both the AM and PM peak. **State what acceptable LOS is.** did not significantly impact acceptable LOS is. Median Road, which is close to where CDOT reported an AADT of 18,717 in 18,566. Therefore, for the purposes of this COVID-19 pandemic in this area.

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State what acceptable LOS is.



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17?



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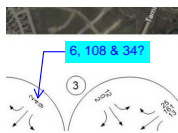
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88?



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88?



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6, 108 & 34?

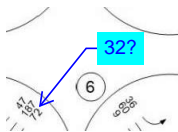
187?



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187?

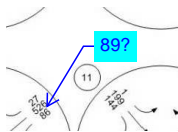
32?



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32?

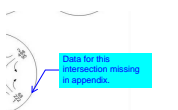
89?



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89?

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23.9?  
23 4

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23.9?

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**9.9?**  
5 2

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9.9?

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**11.9?**  
18 7

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11.9?

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**.189?**  
0.204

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.189?

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**29.9?**  
29.5

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29.9?

---

**34.0**  
**44.0?**

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44.0?

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**0.586**  
**.761?**

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.761?



D?

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D?

24.2?  
25.3

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24.2?

10.5?  
8.9

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10.5?

B?

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B?

B?

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B?

17.4?  
22.7

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17.4?

0.26?  
0 270

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0.26?

31.4?  
25.9

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31.4?

34.4  
31.5?

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31.5?

0.611  
.655?

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.655?

open in Figure 2. The trip generation results for Table 3.  
of Vail Way and Antelope Meadows Circle. See Figure 1 for traffic.  
open in Figure 3. [Please provide statement on how the distribution was determined?](#)  
of background growth rate. The growth rate in Road in the vicinity of the site for the year 2045 was impacted by the COVID-19 at results from a 2% per year background had results from a 2% per year background.

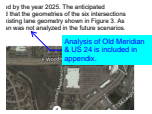
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Please provide statement on how the distribution was determined?

8 AM and PM peak hours can be found in Table 3.  
to the existing roadway network via Bridal Vail Way and anticipated trip distribution of site-generated traffic.  
of the new project trips from the site are shown in Figures 1-4.  
of this [Please provide statement on how new project trips were determined?](#) ground of OT growth rate. [Please determine?](#) in the 2% growth rate for 2045 was no open 2045 2045, the impact in a negative rate. The growth factor that results from 2045 is 1.025. The growth factor that results from 2045 is 2.0328.

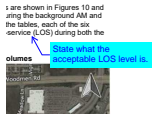
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Please provide statement on how new project trips were determined?



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Analysis of Old Meridian & US 24 is included in appendix.



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State what the acceptable LOS level is.

Verify all counts match information in appendix.

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|     |         |    |
|-----|---------|----|
| 100 | 12 (PM) | 15 |
|-----|---------|----|

roadway system does not warrant future **Dublin Boulevard** extension

future Rock Island Trail extends and US 24 in the vicinity of #

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Dublin Boulevard

|     |         |    |
|-----|---------|----|
| 100 | 12 (PM) | 15 |
|-----|---------|----|

System does not warrant future **Dublin Boulevard** extension if so, correct roadway?

Rock Island Trail extension. The future IS 24 in the vicinity of the site and will

city. The County allows for the applicant to pay the full fee amount, a smaller fee amount, or no fee amount to the

**Subject:** Callout  
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**Layer:**  
**Space:**

Is this statement needed & if so, correct roadway?

|     |         |    |
|-----|---------|----|
| 100 | 12 (PM) | 15 |
|-----|---------|----|

Include statement regarding pedestrian routes to school.

**Subject:** Text Box  
**Page Label:** 28  
**Author:** CDurham  
**Date:** 12/8/2021 3:59:12 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Include statement regarding pedestrian routes to school.

Include copies of MTCP 2040 & Corridor preservation maps with Project area shown. Include discussion of how project area works with MTCP classification of surrounding roads.

**Subject:** Text Box  
**Page Label:** 28  
**Author:** CDurham  
**Date:** 12/8/2021 4:06:20 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Include copies of MTCP 2040 & Corridor preservation maps with Project area shown. Include discussion of how project area works with MTCP classification of surrounding roads.