

**RICHLAND MT. DORA NORTH**

Project № 22204.5 v2.0  
October 2023

**SIGNAL WARRANT ANALYSIS (SWA)  
LAKE COUNTY  
FLORIDA**

*Prepared by:*



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## EXECUTIVE SUMMARY

### **Project Information**

Intersections: Wolf Branch Road & Project Access A  
Round Lake Road & Project Access B  
SR 46 & Project Access C

Jurisdiction: Lake County, Florida

Description: Signal Warrant Analysis (SWA)

### **Findings**

Existing Volumes: Wolf Branch Road 6,046 vehicles per day (2022)  
Round Lake Road 6,256 vehicles per day (2022)  
SR 46 14,950 vehicles per day (2022)

Projected Volumes: Wolf Branch Road 11,600 vehicles per day (2030)  
Round Lake Road 15,100 vehicles per day (2030)  
SR 46 17,500 vehicles per day (2030)

Applicable Warrants: Warrant 1 – Eight-Hour Vehicular Volume  
Warrant 2 – Four-Hour Vehicular Volume

Warrants Satisfied: Warrants 1 and 2 are satisfied for the following two (2) intersections:  
Round Lake Road & Project Access B  
SR 46 & Project Access C

Wolf Branch Road & Project Access is adequately served with two-way stop control.

Recommendations: The future traffic demand will determine when the following mitigation should be implemented:

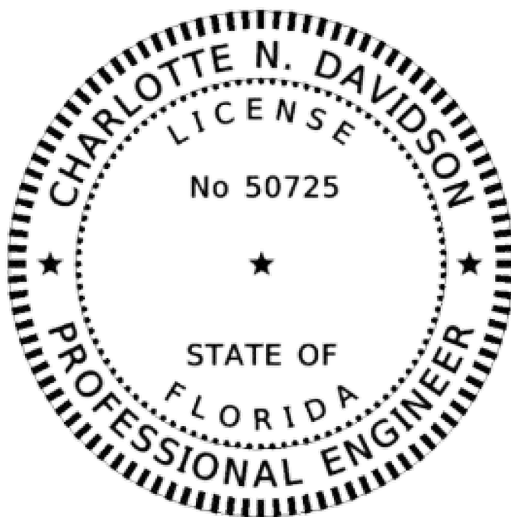
Signalize Round Lake Road & Project Access B  
Signalize SR 46 & Project Access C

## PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants LLC, a corporation authorized to operate as an engineering business, CA-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

**PROJECT:** Richland Mt. Dora North  
**LOCATION:** Lake County, Florida  
**CLIENT:** Richland Developer FLA Inc.

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

TRAFFIC & MOBILITY CONSULTANTS LLC  
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CERTIFICATE OF AUTHORIZATION CA-30024  
CHARLOTTE N. DAVIDSON, P.E. NO 50725

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## 1.0 INTRODUCTION

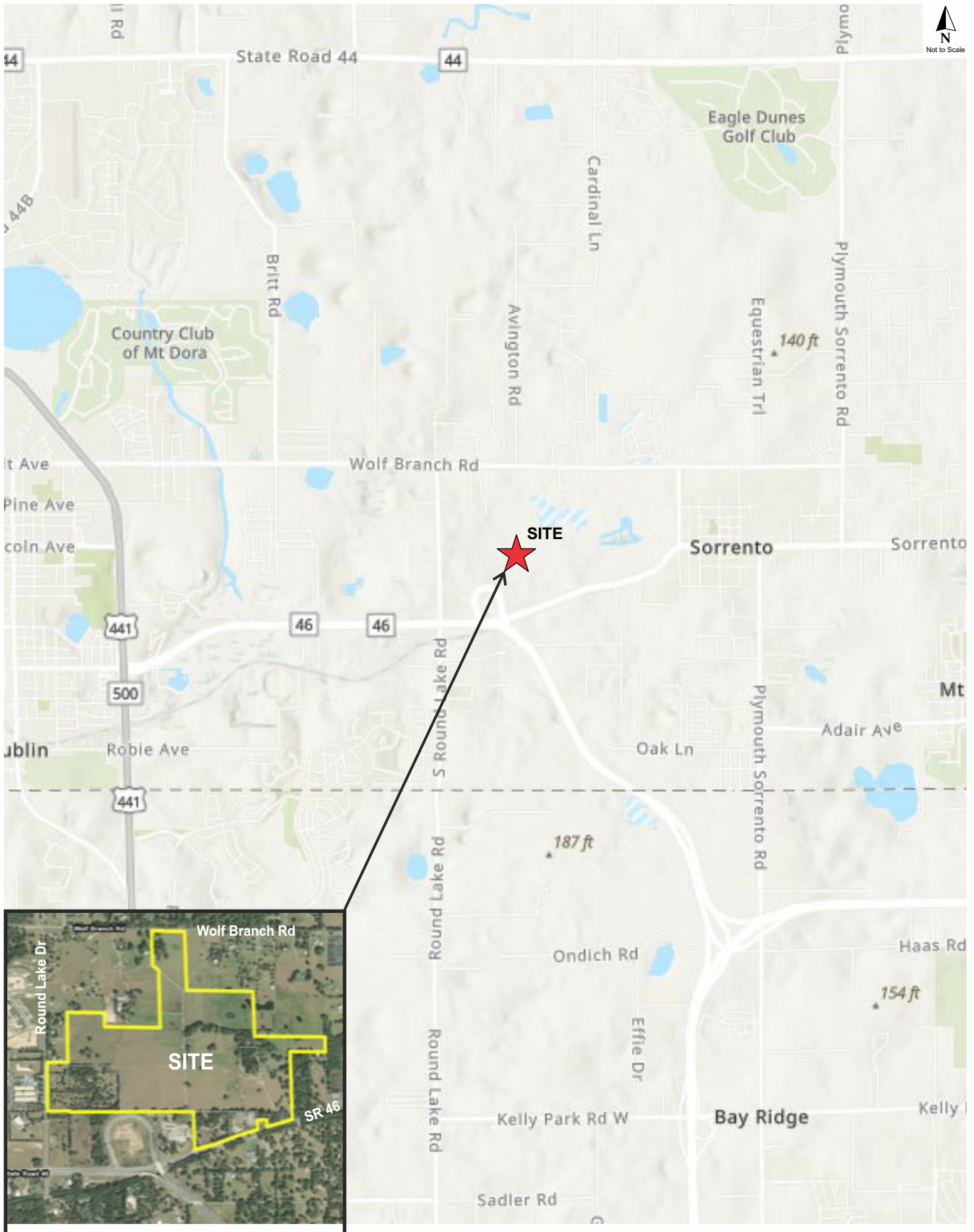
This Signal Warrant Analysis (SWA) was conducted to determine the need and justification for the installation of traffic signals to serve the proposed Richland Mt. Dora North mixed-use site. The project access driveways will be situated along Wolf Branch Road, Round Lake Road, and SR 46 in Lake County, Florida. The Richland Mt. Dora North site is located east off Round Lake Road between Wolf Branch Road and SR 46. The project site and intersection locations are illustrated in **Figure 1**.

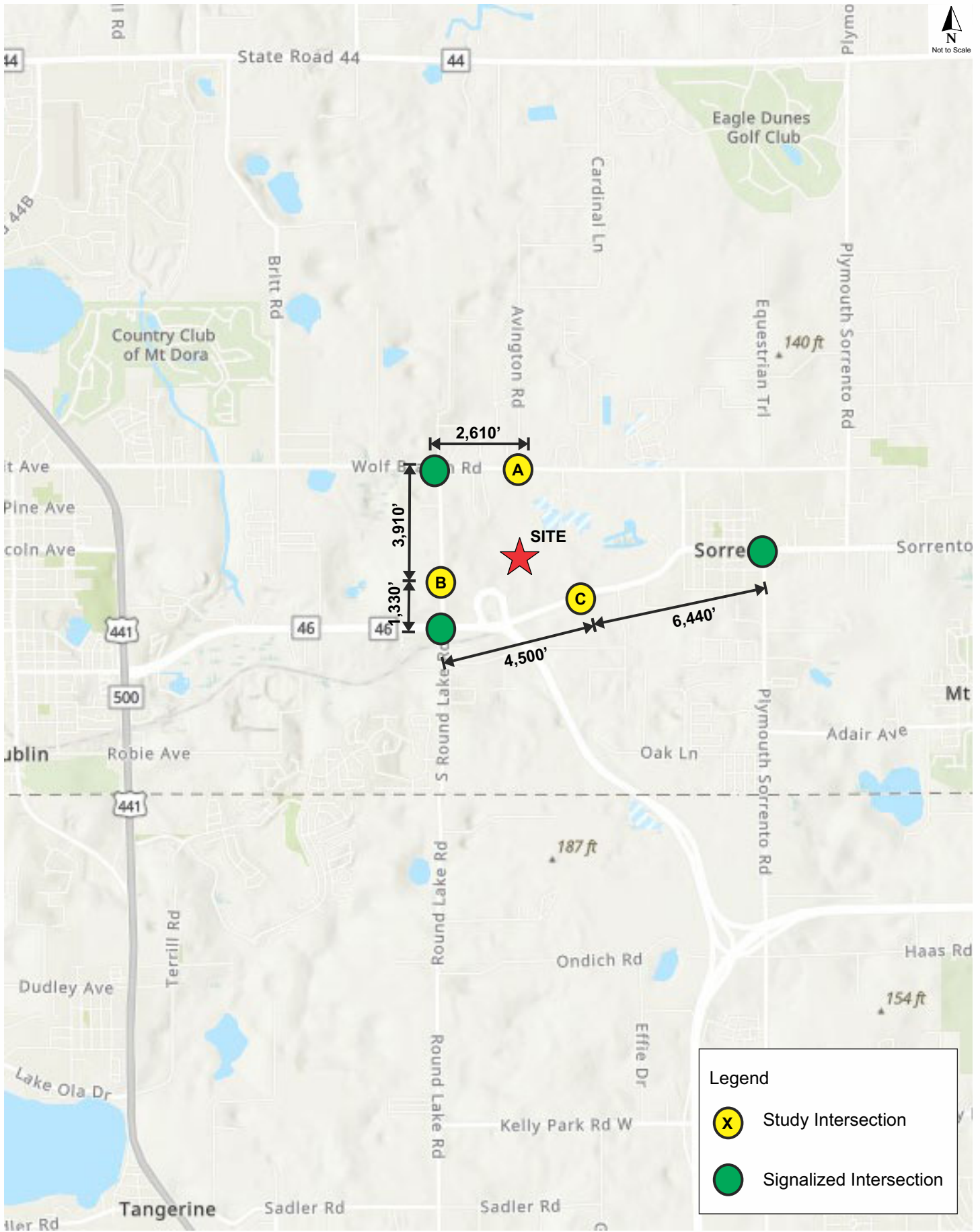
The closest signalized intersection to Project Access A is at the intersection of Wolf Branch Road and Round Lake Road at a distance of approximately 2,610 feet. The closest signalized intersection to Project Access B is at the intersection of SR 46 and Round Lake Road, at a distance of approximately 1,330 feet. The closest signalized intersection to the Project Access C location is at Round Lake Road, at a distance of approximately 4,500 feet. The spacings are illustrated in **Figure 2**.

The turning movement volumes at the study intersections were calculated using projected 2030 Average Annual Daily Traffic (AADT) volumes for each approach. The *Richland Mt. Dora North Traffic Impact Analysis (TIA)* was consulted for the PM peak hour intersection volumes at year 2030 buildout, the trip generation, and the trip distribution. The resulting AADT volumes are detailed below:

- Wolf Branch Road =  $(502 \text{ EB} + 538 \text{ WB}) / 0.09 = 11,600 \text{ AADT}$
- Round Lake Road =  $(860 \text{ NB} + 502 \text{ SB}) / 0.09 = 15,100 \text{ AADT}$
- SR 46 =  $(822 \text{ EB} + 753 \text{ WB}) / 0.09 = 17,500 \text{ AADT}$
- Project Access A Driveway =  $30,232 \text{ daily trips} \times 10\% \text{ distribution} = 3,000 \text{ AADT}$
- Project Access B Driveway =  $30,232 \text{ daily trips} \times 45\% \text{ distribution} = 13,600 \text{ AADT}$
- Project Access C Driveway =  $30,232 \text{ daily trips} \times 45\% \text{ distribution} = 13,600 \text{ AADT}$

The supporting Richland Mt. Dora North TIA information is included in **Appendix A**.





Legend

- X Study Intersection
- Signalized Intersection



## 2.0 PROJECT TRAFFIC

### 2.1 Development Program

The Richland Mt. Dora North development is proposed as 87 single-family units, 2,549 townhome units, 606 low-rise residential with ground floor commercial, 293,334 square feet of general office, 293,333 square feet of research and development, and 293,333 square feet of commercial. The proposed project has a buildout year of 2030. The conceptual site plan is provided in **Appendix B**.

### 2.2 Trip Generation

The traffic generation of the proposed development was calculated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition*. The trip generation calculations for the Richland Mt. Dora North development are summarized in **Table 1**, and references the TIA information provided in **Appendix A**.

**Table 1**  
**Trip Generation Summary**

| ITE Code                            | Land Use  | Size        | Daily |        |
|-------------------------------------|---|-------------|-------|--------|
|                                     |   |             | Rate  | Trips  |
| 210                                 | Single Family Residential                         | 87 DU       | 10.20 | 888    |
| 215                                 | Single Family Attached (Townhomes)                | 2,549 DU    | 7.60  | 19,373 |
| 230                                 | Low-Rise Residential with Ground Floor Commercial | 606 DU      | 3.44  | 2,085  |
| 710                                 | General Office Building                           | 293.334 KSF | 10.09 | 2,960  |
| 760                                 | Research and Development Center                   | 293.333 KSF | 10.54 | 3,093  |
| 820                                 | Shopping Center (>150k)                           | 293.333 KSF | 37.01 | 10,859 |
| <b>Total Gross Trip Generation</b>  |   |             |       | 39,259 |
| <i>Internal Trips (15.0% Daily)</i> |   |             |       | 5,889  |
| <i>Pass-By Retail (34%)</i>         |   |             |       | 3,138  |
| <b>Net New External Trips</b>       |   |             |       | 30,232 |

*Trip Generation analysis based on ITE Trip Generation Manual, 11th Edition.*

*Internal Capture and Pass-By based on ITE Trip Generation Handbook, 3rd Edition*

The proposed development is projected to generate a total of 30,232 net new daily trips.

### 2.3 Programmed Improvements and Trip Distribution

The roadway improvements identified on the FDOT *cflroads.com* website were reviewed to determine if any roadway or intersection improvements are funded for construction. No planned or programmed improvements are funded for construction for the nearby study area.

A trip distribution pattern was estimated using the *Central Florida Regional Planning Model (CFRPM v7.0)* as part of the *Richland Mt. Dora North Transportation Impact Analysis (TIA)*. The model distribution was manually adjusted based on knowledge of the local network, professional engineering judgement, and the location of the development with respect to the study area attractions and activity centers to reflect prevailing travel patterns in the vicinity of the site and the surrounding transportation network. The adjusted trip distribution figure from the TIA is included in **Appendix A**.

The following spatial distributions apply for the three (3) study intersections:

- Project Access A                      5% EB and 5% WB
- Project Access B                      15% NB and 30% SB
- Project Access C                      25% EB and 20% WB
- All Project Access                      100% Total

### **3.0 WARRANT ANALYSIS METHODOLOGY**

This analysis was conducted using information obtained by Traffic & Mobility Consultants LLC (TMC) from various sources, including field measured traffic volumes, data from the Institute of Transportation Engineers (ITE), Florida Department of Transportation (FDOT), and Lake County. The analysis was conducted in accordance with the criteria and methods of the *Manual on Uniform Traffic Control Devices (MUTCD)*, the *FDOT Manual of Uniform Traffic Studies (MUTS)*, and standard engineering practice.

The analysis is based on the nine (9) warrants set forth in the *MUTCD* as shown below:

- Warrant 1 – Eight-Hour Vehicular Volume
- Warrant 2 – Four-Hour Vehicular Volume
- Warrant 3 – Peak Hour
- Warrant 4 – Pedestrian Volume
- Warrant 5 – School Crossing
- Warrant 6 – Coordinated Signal System
- Warrant 7 – Crash Experience
- Warrant 8 – Roadway Network
- Warrant 9 – Intersection Near a Grade Crossing

This Signal Warrant Analysis is being conducted for the three (3) project access driveways proposed to serve the proposed Richland Mt. Dora North development.

#### **3.1 Applicable Signal Warrants**

The following warrants are applicable to these intersections:

- Warrant 1 - Eight-Hour Vehicular Volume
- Warrant 2 - Four-Hour Vehicular Volume

### 3.2 Warrant 1, Eight-Hour Vehicular Volume

It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analyses of Condition B and the combination of Conditions A and B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.

- Condition A – The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.
- Condition B – The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

The *MUTCD* allows for reductions in the volumes required for satisfying *Warrants 1* and *2* where the 85<sup>th</sup> percentile speed of the major street traffic is greater than 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000. Wolf Branch Road, Round Lake Road, and SR 46 carry posted speed limits of 45 mph. The traffic thresholds established by the *MUTCD* for this warrant are summarized in **Table 2**.

**Table 2  
Warrant 1 – Traffic Thresholds**

| Number of lanes for moving traffic on each approach     |       |                     |       | Vehicles/hour on major street (total of both approaches) |            |            |            | Vehicles/hour on higher-volume minor-street approach (one direction only) |            |            |            |
|---|-------|---------------------|-------|--|------------|------------|------------|---|------------|------------|------------|
| <b>Condition A – Minimum Vehicular Volume</b>           |       |                     |       |  |            |            |            |   |            |            |            |
| <u>Major Street</u>                                     |       | <u>Minor Street</u> |       | <u>100%</u>  | <u>80%</u> | <u>70%</u> | <u>56%</u> | <u>100%</u>   | <u>80%</u> | <u>70%</u> | <u>56%</u> |
| 1   | Lane  | 1                   | Lane  | 500  | 400        | 350        | 280        | 150   | 120        | 105        | 84         |
| 2+  | Lanes | 1                   | Lane  | 600  | 480        | 420        | 336        | 150   | 120        | 105        | 84         |
| 2+  | Lanes | 2+                  | Lanes | 600  | 480        | 420        | 336        | 200   | 160        | 140        | 112        |
| 1   | Lane  | 2+                  | Lanes | 500  | 400        | 350        | 280        | 200   | 160        | 140        | 112        |
| <b>Condition B – Interruption of Continuous Traffic</b> |       |                     |       |  |            |            |            |   |            |            |            |
| <u>Major Street</u>                                     |       | <u>Minor Street</u> |       | <u>100%</u>  | <u>80%</u> | <u>70%</u> | <u>56%</u> | <u>100%</u>   | <u>80%</u> | <u>70%</u> | <u>56%</u> |
| 1   | Lane  | 1                   | Lane  | 750  | 600        | 525        | 420        | 75  | 60         | 53         | 42         |
| 2+  | Lanes | 1                   | Lane  | 900  | 720        | 630        | 504        | 75  | 60         | 53         | 42         |
| 2+  | Lanes | 2+                  | Lanes | 900  | 720        | 630        | 504        | 100   | 80         | 70         | 56         |
| 1   | Lane  | 2+                  | Lanes | 750  | 600        | 525        | 420        | 100   | 80         | 70         | 56         |

Source: *Manual on Uniform Traffic Control Devices, 2009 Edition, U.S. Department of Transportation, Federal Highway Administration.*

### **3.3 Warrant 2, Four-Hour Vehicular Volume**

The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. The warrant review is prepared based on Figure 4C-2 of the *MUTCD* signal warrant review. For the three (3) study intersections, the 70% factor is applied based on the major street having a posted speed limit at or above 40 mph.

#### **4.0 WOLF BRANCH ROAD AND PROJECT ACCESS A**

The study intersection of Wolf Branch Road and Project Access A was analyzed to determine if the projected volumes meet the *MUTCD* criteria for installation of a traffic signal. The intersection configuration includes two (2) eastbound approach lanes (through and right turn lanes), two (2) westbound through lanes (through and left turn lanes), one (1) northbound left lane, and one (1) southbound lane.

#### **4.1 Projected Intersection Volumes**

The FDOT existing roadway telemetric count data, collected on June 29, 2022, was used to establish a temporal distribution for the Wolf Branch Road background traffic (e.g., Count Station No. 111019). The roadway has an existing AADT of 6,046 daily trips which is projected to year 2030 buildout based on the minimum two percent (2%) per year growth rate (e.g.,  $6,046 \times (1+0.02^{*(2030-2022)})=7,013$ ). The projected background AADT and hourly distribution was then applied to determine the eastbound and westbound 2030 volumes. The FDOT telemetric count, existing AADT, and background volume information are provided in **Appendix C**.

The temporal hourly distribution for the Richland Mt. Dora North development traffic was obtained from the *ITE Trip Generation Manual, 11<sup>th</sup> Edition*. The distributions vary based on the land use types proposed. The individual and combined overall temporal hourly distributions are provided in **Appendix D**.

The spatial trip distributions for the Richland Mt. Dora North site were obtained from the *Central Florida Regional Planning Model (CFRPM) Version 7.0*. The spatial trip distributions are presented in **Section 2.3**.

The hourly volumes are obtained by referencing the temporal hourly and the special distributions. The development of the project trips for the three (3) intersections are detailed in **Appendix D**.

The final projected 2030 intersection volumes are comprised of background traffic plus project trips. The volumes are shown in **Table 3**.

**Table 3**  
**Wolf Branch Road and Project Access A 2030 Hourly Volumes**

| Begin<br>Time | Wolf Branch Road |       |       |      |       |       | Project Access A |       |       |
|---------------|------------------|-------|-------|------|-------|-------|------------------|-------|-------|
|               | EB               |       |       | WB   |       |       | NB               |       |       |
|               | Thru             | Right | Total | Left | Thru  | Total | Left             | Right | Total |
| 0:00          | 10               | 3     | 13    | 3    | 15    | 18    | 2                | 2     | 4     |
| 1:00          | 13               | 1     | 14    | 1    | 11    | 12    | 1                | 1     | 2     |
| 2:00          | 6                | 1     | 7     | 1    | 13    | 14    | 1                | 1     | 2     |
| 3:00          | 7                | 1     | 8     | 1    | 15    | 16    | 2                | 2     | 4     |
| 4:00          | 35               | 2     | 37    | 2    | 27    | 29    | 5                | 5     | 10    |
| 5:00          | 77               | 2     | 79    | 2    | 78    | 80    | 11               | 11    | 22    |
| 6:00          | 154              | 12    | 166   | 12   | 167   | 179   | 27               | 27    | 54    |
| 7:00          | 194              | 31    | 225   | 31   | 261   | 292   | 61               | 61    | 122   |
| 8:00          | 204              | 39    | 243   | 39   | 236   | 275   | 49               | 49    | 98    |
| 9:00          | 191              | 34    | 225   | 34   | 208   | 242   | 41               | 41    | 82    |
| 10:00         | 190              | 38    | 228   | 38   | 178   | 216   | 36               | 36    | 72    |
| 11:00         | 207              | 46    | 253   | 46   | 206   | 252   | 52               | 52    | 104   |
| 12:00         | 218              | 56    | 274   | 56   | 226   | 282   | 52               | 52    | 104   |
| 13:00         | 217              | 48    | 265   | 48   | 218   | 266   | 47               | 47    | 94    |
| 14:00         | 203              | 50    | 253   | 50   | 219   | 269   | 51               | 51    | 102   |
| 15:00         | 230              | 60    | 290   | 60   | 230   | 290   | 48               | 48    | 96    |
| 16:00         | 266              | 66    | 332   | 66   | 255   | 321   | 57               | 57    | 114   |
| 17:00         | 297              | 75    | 372   | 75   | 318   | 393   | 66               | 66    | 132   |
| 18:00         | 224              | 61    | 285   | 61   | 257   | 318   | 47               | 47    | 94    |
| 19:00         | 166              | 47    | 213   | 47   | 165   | 212   | 37               | 37    | 74    |
| 20:00         | 127              | 35    | 162   | 35   | 129   | 164   | 30               | 30    | 60    |
| 21:00         | 102              | 25    | 127   | 25   | 82    | 107   | 19               | 19    | 38    |
| 22:00         | 55               | 15    | 70    | 15   | 44    | 59    | 10               | 10    | 20    |
| 23:00         | 38               | 8     | 46    | 8    | 26    | 34    | 4                | 4     | 7     |
| Total         | 3,430            | 756   | 4,186 | 756  | 3,584 | 4,340 | 756              | 756   | 1,511 |

#### 4.2 Warrant Evaluation

Since all approaches have 2+ lanes, the volume thresholds for 2+ lanes on the major and minor streets were applied. Half of the projected northbound right turns were used for the minor road volumes. The analysis of Warrant 1 is shown in **Table 4**. The analysis reveals that the projected 2030 traffic volumes at the intersection does not meet the thresholds of Warrant 1 for Conditions A and B. Therefore, the volume thresholds of Warrant 1 are **Not Satisfied** for the intersection of Wolf Branch Road and Project Access A.

**Table 4  
Wolf Branch Road and Project Access A – Warrant 1**

| Begin Time | Approaches |                                   | Warrant 1            |             | Both A & B |
|------------|------------|-----------------------------------|----------------------|-------------|------------|
|            | Major Road | Minor Road                        | Condition A          | Condition B |            |
| 7:00       | 517        | 90                                |                      |             |            |
| 8:00       | 518        | 74                                |                      |             |            |
| 9:00       | 467        | 62                                |                      |             |            |
| 10:00      | 444        | 54                                |                      |             |            |
| 11:00      | 505        | 78                                |                      |             |            |
| 12:00      | 556        | 78                                |                      |             |            |
| 13:00      | 531        | 71                                |                      |             |            |
| 14:00      | 522        | 77                                |                      |             |            |
| 15:00      | 580        | 72                                |                      |             |            |
| 16:00      | 653        | 87                                |                      | X           |            |
| 17:00      | 765        | 99                                |                      | X           |            |
| 18:00      | 603        | 71                                |                      |             |            |
|            |            | <b>Hours Required</b>             | 8                    | 8           | 8          |
|            |            | <b>Hours Satisfied</b>            | 0                    | 2           | 0          |
|            |            | <b>Volume Threshold Satisfied</b> | N                    | N           | N          |
|            |            | <b>Warrant Results</b>            | <b>Not Satisfied</b> |             |            |

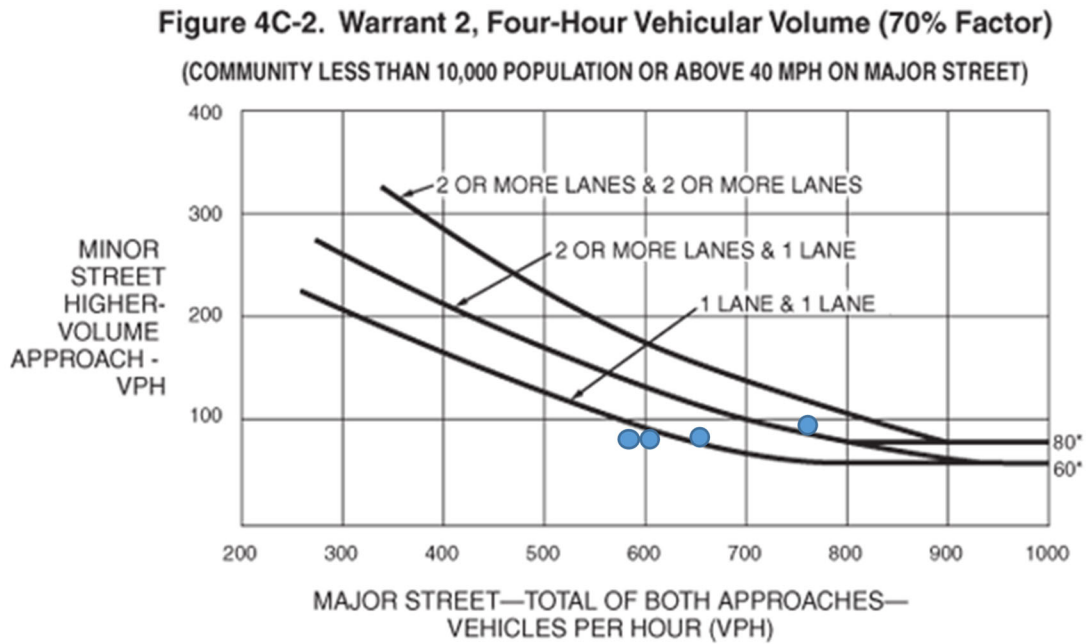
*MUTCD 4C.02: On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.*

*Minor road right turn volumes assumed as 50% of total*



The analysis of Warrant 2 for buildout conditions is depicted in **Figure 3**. The conditions for Warrant 2 are **Not Satisfied** for the intersection of Wolf Branch Road and Project Access A.

**Figure 3**  
**Wolf Branch Road and Project Access A – Warrant 2**



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

## 5.0 ROUND LAKE ROAD AND PROJECT ACCESS B

The study intersection of Round Lake Road and Project Access B was analyzed to determine if the projected volumes meet the *MUTCD* criteria for installation of a traffic signal. The intersection configuration includes two (2) northbound approach lanes (through and right turn lanes), two (2) southbound through lanes (through and left turn lanes), and two (2) westbound approach lanes (left and right turn lanes).

### 5.1 Projected Intersection Volumes

The FDOT existing roadway telemetric count data, collected on June 29, 2022, was used to establish a temporal distribution for the Round Lake Road background traffic (e.g., Count Station No. 111019). The roadway has an existing AADT of 6,256 daily trips which is projected to year 2030 buildout based on the minimum two percent (2%) per year growth rate (e.g.,  $6,256 \times (1+0.02 \times (2030-2022))=7,257$ ). The projected background AADT and hourly distribution was then applied to determine the eastbound and westbound 2030 volumes. The FDOT telemetric count, existing AADT, and background volume information are included in **Appendix C**.

The temporal hourly distribution for the Richland Mt. Dora North development traffic was obtained from the *ITE Trip Generation Manual, 11<sup>th</sup> Edition*. The distributions vary based on the land use types proposed. The individual and combined overall temporal hourly distributions are provided in **Appendix D**.

The spatial trip distributions for the Richland Mt. Dora North site were obtained from the *Central Florida Regional Planning Model (CFRPM) Version 7.0*. The spatial trip distributions are presented in **Section 2.3**.

The hourly volumes are obtained by referencing the temporal hourly and the special distributions. The development of the project trips for the three (3) intersections are detailed in **Appendix D**.

The final projected 2030 intersection volumes are comprised of background traffic plus project trips. The volumes are shown in **Table 5**.

**Table 5  
Round Lake Road and Project Access B 2030 Hourly Volumes**

| Begin<br>Time | Project Access B |       |       | Round Lake Rd |       |       |       |       |       |
|---------------|------------------|-------|-------|---------------|-------|-------|-------|-------|-------|
|               | WB               |       |       | NB            |       |       | SB    |       |       |
|               | Left             | Right | Total | Thru          | Right | Total | Left  | Thru  | Total |
| 0:00          | 20               | 10    | 30    | 11            | 11    | 22    | 6     | 16    | 22    |
| 1:00          | 9                | 4     | 13    | 14            | 4     | 18    | 2     | 12    | 14    |
| 2:00          | 6                | 3     | 9     | 6             | 8     | 14    | 4     | 13    | 17    |
| 3:00          | 8                | 4     | 12    | 8             | 10    | 18    | 5     | 15    | 20    |
| 4:00          | 11               | 6     | 17    | 36            | 27    | 63    | 14    | 28    | 42    |
| 5:00          | 10               | 5     | 15    | 80            | 64    | 144   | 32    | 81    | 113   |
| 6:00          | 73               | 36    | 109   | 160           | 162   | 322   | 81    | 173   | 254   |
| 7:00          | 189              | 94    | 283   | 200           | 365   | 565   | 183   | 270   | 453   |
| 8:00          | 232              | 116   | 348   | 212           | 291   | 503   | 146   | 244   | 390   |
| 9:00          | 203              | 101   | 304   | 197           | 247   | 444   | 124   | 215   | 339   |
| 10:00         | 230              | 115   | 345   | 196           | 218   | 414   | 109   | 184   | 293   |
| 11:00         | 276              | 138   | 414   | 214           | 311   | 525   | 155   | 213   | 368   |
| 12:00         | 334              | 166   | 500   | 225           | 314   | 539   | 158   | 234   | 392   |
| 13:00         | 287              | 145   | 432   | 224           | 284   | 508   | 142   | 226   | 368   |
| 14:00         | 301              | 151   | 452   | 210           | 308   | 518   | 154   | 227   | 381   |
| 15:00         | 359              | 180   | 539   | 238           | 290   | 528   | 145   | 238   | 383   |
| 16:00         | 392              | 197   | 589   | 275           | 348   | 623   | 174   | 263   | 437   |
| 17:00         | 451              | 226   | 677   | 307           | 394   | 701   | 197   | 329   | 526   |
| 18:00         | 366              | 184   | 550   | 232           | 285   | 517   | 142   | 266   | 408   |
| 19:00         | 282              | 141   | 423   | 171           | 219   | 390   | 110   | 171   | 281   |
| 20:00         | 210              | 105   | 315   | 131           | 178   | 309   | 89    | 133   | 222   |
| 21:00         | 151              | 76    | 227   | 106           | 111   | 217   | 56    | 85    | 141   |
| 22:00         | 87               | 44    | 131   | 57            | 60    | 117   | 30    | 46    | 76    |
| 23:00         | 45               | 23    | 68    | 39            | 23    | 62    | 12    | 27    | 38    |
| Total         | 4,532            | 2,270 | 6,802 | 3,549         | 4,532 | 8,081 | 2,270 | 3,708 | 5,977 |

## 5.2 Warrant Evaluation

Since all approaches have 2+ lanes, the volume thresholds for 2+ lanes on the major and minor streets were applied. Half of the projected northbound right turns were used for the minor road volumes. The analysis of Warrant 1 is shown in **Table 6**. The analysis reveals that the projected traffic volumes at the intersection meet the thresholds of Warrant 1 for Conditions A and B. Therefore, the volume thresholds of Warrant 1 are **Satisfied** for the intersection of Round Lake Road and Project Access B.

**Table 6**  
**Round Lake Road and Project Access B – Warrant 1**

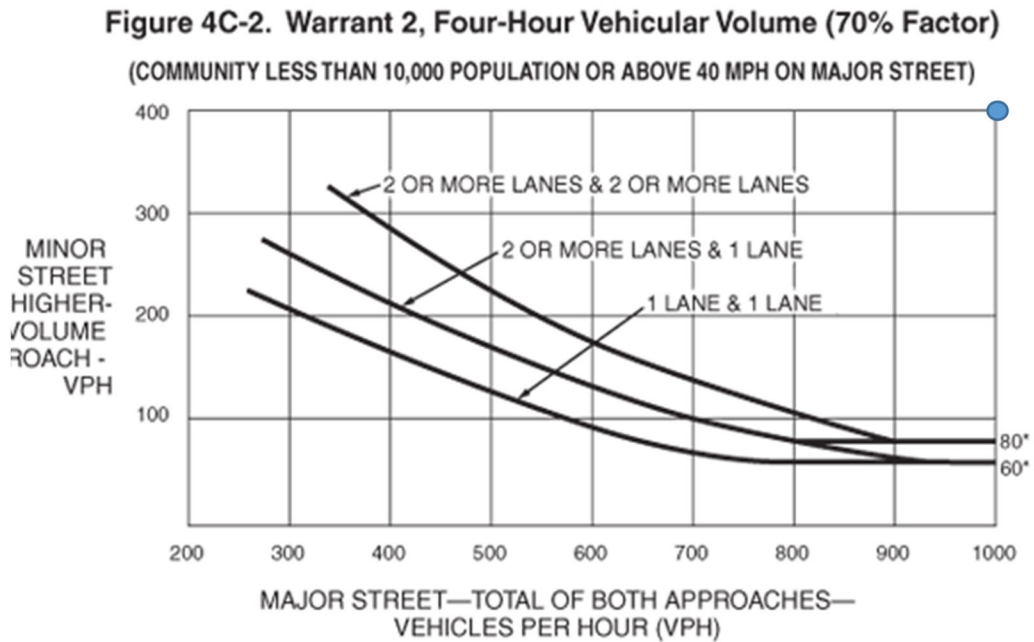
| Begin Time | Approaches |                                   | Warrant 1        |             |            |
|------------|------------|-----------------------------------|------------------|-------------|------------|
|            | Major Road | Minor Road                        | Condition A      | Condition B | Both A & B |
| 7:00       | 847        | 236                               | X                | X           | X          |
| 8:00       | 851        | 290                               | X                | X           | X          |
| 9:00       | 748        | 254                               | X                | X           | X          |
| 10:00      | 759        | 288                               | X                | X           | X          |
| 11:00      | 939        | 345                               | X                | X           | X          |
| 12:00      | 1,040      | 417                               | X                | X           | X          |
| 13:00      | 940        | 360                               | X                | X           | X          |
| 14:00      | 970        | 377                               | X                | X           | X          |
| 15:00      | 1,067      | 449                               | X                | X           | X          |
| 16:00      | 1,212      | 491                               | X                | X           | X          |
| 17:00      | 1,378      | 564                               | X                | X           | X          |
| 18:00      | 1,067      | 458                               | X                | X           | X          |
|            |            | <b>Hours Required</b>             | 8                | 8           | 8          |
|            |            | <b>Hours Satisfied</b>            | 12               | 12          | 12         |
|            |            | <b>Volume Threshold Satisfied</b> | Y                | Y           | Y          |
|            |            | <b>Warrant Results</b>            | <b>Satisfied</b> |             |            |

*MUTCD 4C.02: On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.*

*Minor road right turn volumes assumed as 50% of total*

The analysis of Warrant 2 for buildout conditions is depicted in **Figure 4**. The conditions for Warrant 2 are **Satisfied** for the intersection of Round Lake Road and Project Access B.

**Figure 4**  
**Round Lake Road and Project Access B – Warrant 2**



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

## 6.0 SR 46 AND PROJECT ACCESS C

The study intersection of SR 46 and Project Access C was analyzed to determine if the projected volumes meet the *MUTCD* criteria for installation of a traffic signal. The intersection configuration includes two (2) eastbound approach lanes (through and left turn lanes), two (2) westbound through lanes (through and right turn lanes), and two (2) southbound approach lanes (left and right turn lanes).

### 6.1 Projected Intersection Volumes

The FDOT existing roadway telemetric count data, collected on June 29, 2022, was used to establish a temporal distribution for the SR 46 background traffic (e.g., Count Station No. 111019). The roadway has an existing AADT of 14,950 daily trips which is projected to year 2030 buildout based on the minimum two percent (2%) per year growth rate (e.g.,  $14,950 \times (1+0.02^{*(2030-2022)})=17,342$ ). The projected background AADT and hourly distribution was then applied to determine the eastbound and westbound 2030 volumes. The FDOT telemetric count, existing AADT, and background volume information are included in **Appendix B**.

The temporal hourly distribution for the Richland Mt. Dora North development traffic was obtained from the *ITE Trip Generation Manual, 11<sup>th</sup> Edition*. The distributions vary based on the land use types proposed. The individual and combined overall temporal hourly distributions are provided in **Appendix D**.

The spatial trip distributions for the Richland Mt. Dora North site were obtained from the *Central Florida Regional Planning Model (CFRPM) Version 7.0*. The spatial trip distributions are presented in **Section 2.3**.

The hourly volumes are obtained by referencing the temporal hourly and the special distributions. The development of the project trips for the three (3) intersections are detailed in **Appendix D**.

The final projected 2030 intersection volumes are comprised of background traffic plus project trips. The volumes are shown in **Table 7**.

**Table 7  
SR 46 and Project Access C 2030 Hourly Volumes**

| Begin<br>Time | SR 46 |       |        |       |       |        | Project Access C |       |       |
|---------------|-------|-------|--------|-------|-------|--------|------------------|-------|-------|
|               | EB    |       |        | WB    |       |        | SB               |       |       |
|               | Left  | Thru  | Total  | Thru  | Right | Total  | Left             | Right | Total |
| 0:00          | 13    | 25    | 38     | 38    | 17    | 55     | 9                | 8     | 17    |
| 1:00          | 6     | 32    | 38     | 28    | 7     | 35     | 4                | 3     | 7     |
| 2:00          | 4     | 14    | 18     | 31    | 5     | 36     | 7                | 6     | 13    |
| 3:00          | 5     | 18    | 23     | 37    | 6     | 43     | 8                | 6     | 14    |
| 4:00          | 8     | 86    | 94     | 66    | 9     | 75     | 23               | 18    | 41    |
| 5:00          | 6     | 190   | 196    | 193   | 8     | 201    | 53               | 43    | 96    |
| 6:00          | 49    | 382   | 431    | 413   | 61    | 474    | 135              | 108   | 243   |
| 7:00          | 126   | 479   | 605    | 646   | 157   | 803    | 304              | 243   | 547   |
| 8:00          | 154   | 505   | 659    | 583   | 193   | 776    | 243              | 194   | 437   |
| 9:00          | 135   | 472   | 607    | 514   | 169   | 683    | 206              | 165   | 371   |
| 10:00         | 153   | 469   | 622    | 439   | 192   | 631    | 182              | 146   | 328   |
| 11:00         | 184   | 513   | 697    | 510   | 231   | 741    | 259              | 207   | 466   |
| 12:00         | 223   | 538   | 761    | 559   | 279   | 838    | 262              | 210   | 472   |
| 13:00         | 193   | 536   | 729    | 539   | 241   | 780    | 238              | 189   | 427   |
| 14:00         | 200   | 503   | 703    | 542   | 250   | 792    | 256              | 205   | 461   |
| 15:00         | 238   | 569   | 807    | 569   | 298   | 867    | 241              | 193   | 434   |
| 16:00         | 263   | 658   | 921    | 629   | 328   | 957    | 291              | 231   | 522   |
| 17:00         | 301   | 734   | 1035   | 786   | 376   | 1162   | 328              | 263   | 591   |
| 18:00         | 245   | 553   | 798    | 636   | 305   | 941    | 237              | 190   | 427   |
| 19:00         | 188   | 410   | 598    | 408   | 235   | 643    | 183              | 146   | 329   |
| 20:00         | 140   | 314   | 454    | 318   | 175   | 493    | 148              | 119   | 267   |
| 21:00         | 101   | 253   | 354    | 203   | 126   | 329    | 93               | 74    | 167   |
| 22:00         | 58    | 135   | 193    | 110   | 73    | 183    | 50               | 40    | 90    |
| 23:00         | 30    | 93    | 123    | 65    | 38    | 103    | 19               | 16    | 34    |
| Total         | 3,023 | 8,480 | 11,503 | 8,862 | 3,779 | 12,641 | 3,779            | 3,023 | 6,801 |

## 6.2 Warrant Evaluation

Since the major approaches have 2+ lanes and the minor approach has one (1) lane, the volume thresholds for 2+ lanes on the major street and one (1) lane on the minor street were applied. Project Access C is designed to be a shared lane at the intersection; therefore, the minor road volume was determined by adding the left turning volumes and half the right turning volumes. The analysis of Warrant 1 is shown in **Table 8**. The analysis reveals that the projected traffic volumes at the intersection meet the thresholds of Warrant 1 for Conditions A and B. Therefore, the volume thresholds of Warrant 1 are **Satisfied** for the intersection of SR 46 and Project Access C.

**Table 8  
SR 46 and Project Access C – Warrant 1**

| Begin Time                        | Approaches |                        | Warrant 1        |             | Both A & B |
|-----------------------------------|------------|------------------------|------------------|-------------|------------|
|                                   | Major Road | Minor Road             | Condition A      | Condition B |            |
| 7:00                              | 1,408      | 426                    | X                | X           | X          |
| 8:00                              | 1,435      | 340                    | X                | X           | X          |
| 9:00                              | 1,290      | 289                    | X                | X           | X          |
| 10:00                             | 1,253      | 255                    | X                | X           | X          |
| 11:00                             | 1,438      | 363                    | X                | X           | X          |
| 12:00                             | 1,599      | 367                    | X                | X           | X          |
| 13:00                             | 1,509      | 333                    | X                | X           | X          |
| 14:00                             | 1,495      | 359                    | X                | X           | X          |
| 15:00                             | 1,674      | 338                    | X                | X           | X          |
| 16:00                             | 1,878      | 407                    | X                | X           | X          |
| 17:00                             | 2,197      | 460                    | X                | X           | X          |
| 18:00                             | 1,739      | 332                    | X                | X           | X          |
|                                   |            | <b>Hours Required</b>  | 8                | 8           | 8          |
|                                   |            | <b>Hours Satisfied</b> | 12               | 12          | 12         |
| <b>Volume Threshold Satisfied</b> |            |                        | Y                | Y           | Y          |
| <b>Warrant Results</b>            |            |                        | <b>Satisfied</b> |             |            |

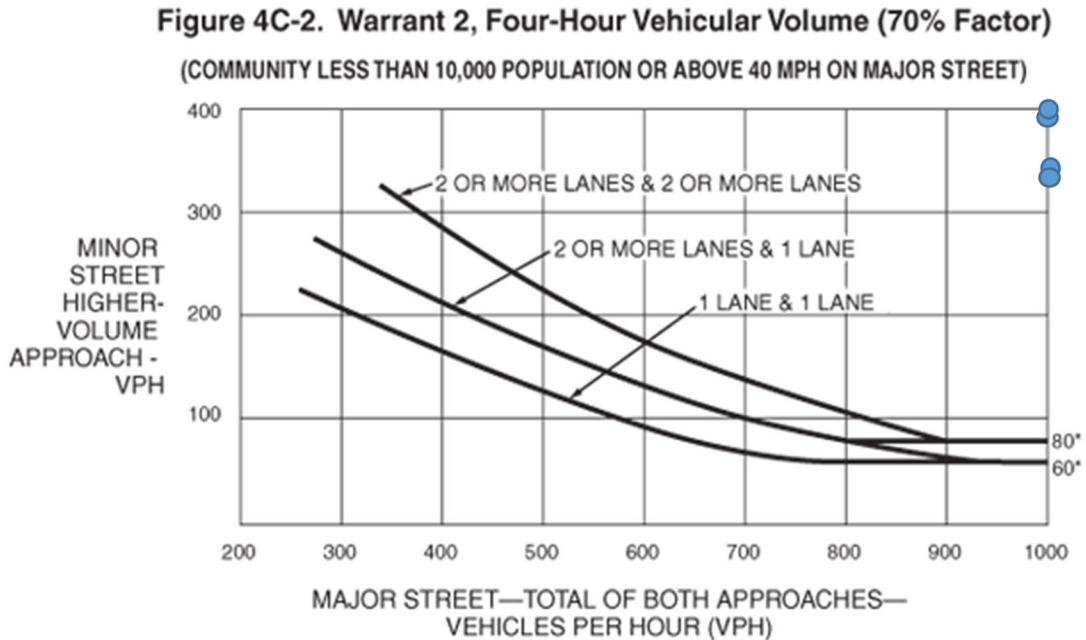
*MUTCD 4C.02: On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.*

*Minor road right turn volumes assumed as 50% of total*



The analysis of Warrant 2 for buildout conditions is depicted in **Figure 5**. The conditions for Warrant 2 are **Satisfied** for the intersection of SR 46 and Project Access C.

**Figure 5**  
**SR 46 and Project Access C – Warrant 2**



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

## 7.0 SIGNAL WARRANT SUMMARY

A summary of the results of the signal warrants for the three (3) study intersections is provided in **Table 9**.

**Table 9**  
**Signal Warrant Results**

| MUTCD Signal Warrants |                                    | Wolf Branch Rd & Proj Access A | Round Lake Rd & Project Access B | SR 46 & Project Access C |
|-----------------------|------------------------------------|--------------------------------|----------------------------------|--------------------------|
| Warrant 1             | Eight-Hour Vehicular Volume        | Not Satisfied                  | Satisfied                        | Satisfied                |
| Warrant 2             | Four-Hour Vehicular Volume         | Not Satisfied                  | Satisfied                        | Satisfied                |
| Warrant 3             | Peak Hour                          | Not Applicable                 | Not Applicable                   | Not Applicable           |
| Warrant 4             | Pedestrian Volume                  | Not Applicable                 | Not Applicable                   | Not Applicable           |
| Warrant 5             | School Crossing                    | Not Applicable                 | Not Applicable                   | Not Applicable           |
| Warrant 6             | Coordinated Signal System          | Not Applicable                 | Not Applicable                   | Not Applicable           |
| Warrant 7             | Crash Experience                   | Not Applicable                 | Not Applicable                   | Not Applicable           |
| Warrant 8             | Roadway Network                    | Not Applicable                 | Not Applicable                   | Not Applicable           |
| Warrant 9             | Intersection Near a Grade Crossing | Not Applicable                 | Not Applicable                   | Not Applicable           |

Based on this analysis, it is recommended that traffic signals be installed at the Round Lake Road and Project Access B intersection along with the SR 46 and Project Access C intersection. The signal warrant analysis summary worksheets for the study intersections are provided in **Appendix E**.

## 8.0 CAPACITY EVALUATION

Two (2) types of traffic control were evaluated and compared for the study intersections to determine if they provide sufficient capacity to accommodate the projected intersection volumes. The controls evaluated were two-way stop control (TWSC) and signalization; though the Wolf Branch Road and Project Access A review was limited to the TWSC since the signal is not projected to be warranted. The analysis was conducted in accordance with the methods of the *Highway Capacity Manual (HCM)*. The AM and PM peak hour volumes were obtained from the volumes calculated using the temporal distribution and projected AADT. The projected AM peak hour and PM peak hour volumes are illustrated in **Figure 6**. The AM and PM peak hour capacity analyses are summarized in **Table 10** and the *HCM TWSC and signal* output sheets are included in **Appendix F**.

**Table 10**  
**Intersection Capacity Evaluation**

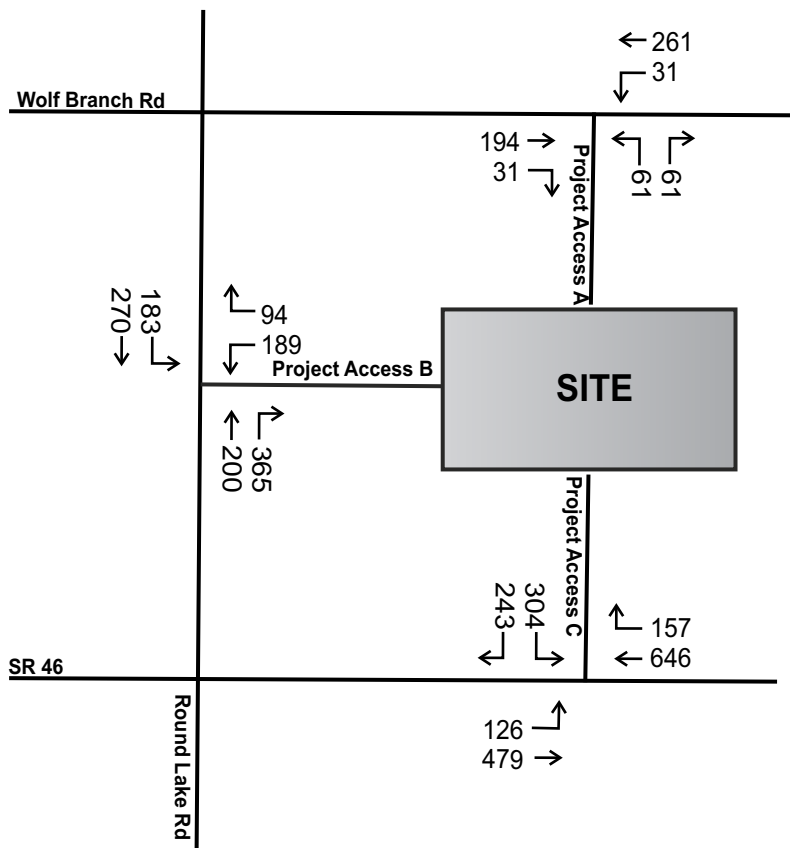
| Intersection                        | Period | Control | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
|-------------------------------------|--------|---------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| Wolf Branch Road & Project Access A | AM     | TWSC    | --    | --  | 7.8   | A   | 11.0  | B   | --    | --  | --    | --  |
|                                     |        | Signal  | n/a   | n/a | n/a   | n/a | n/a   | n/a | n/a   | n/a | n/a   | n/a |
|                                     | PM     | TWSC    | --    | --  | 8.4   | A   | 12.9  | B   | --    | --  | --    | --  |
|                                     |        | Signal  | n/a   | n/a | n/a   | n/a | n/a   | n/a | n/a   | n/a | n/a   | n/a |
| Round Lake Road & Project Access B  | AM     | TWSC    | --    | --  | 24.6  | C   | --    | --  | 9.7   | A   | --    | --  |
|                                     |        | Signal  | --    | --  | 18.9  | B   | 12.2  | B   | 4.6   | A   | 11.0  | B   |
|                                     | PM     | TWSC    | --    | --  | 275.3 | F   | --    | --  | 10.7  | B   | --    | --  |
|                                     |        | Signal  | --    | --  | 24.2  | C   | 22.9  | C   | 9.7   | A   | 19.7  | B   |
| SR 46 & Project Access C            | AM     | TWSC    | 10.7  | B   | --    | --  | --    | --  | >300  | F   | --    | --  |
|                                     |        | Signal  | 10.9  | B   | 77.3  | E   | --    | --  | 18.0  | B   | 40.2  | D   |
|                                     | PM     | TWSC    | 20.7  | C   | --    | --  | --    | --  | >300  | F   | --    | --  |
|                                     |        | Signal  | 24.5  | C   | 36.8  | D   | --    | --  | 49.6  | D   | 35.0  | D   |

*Delay expressed in Seconds/Vehicle*

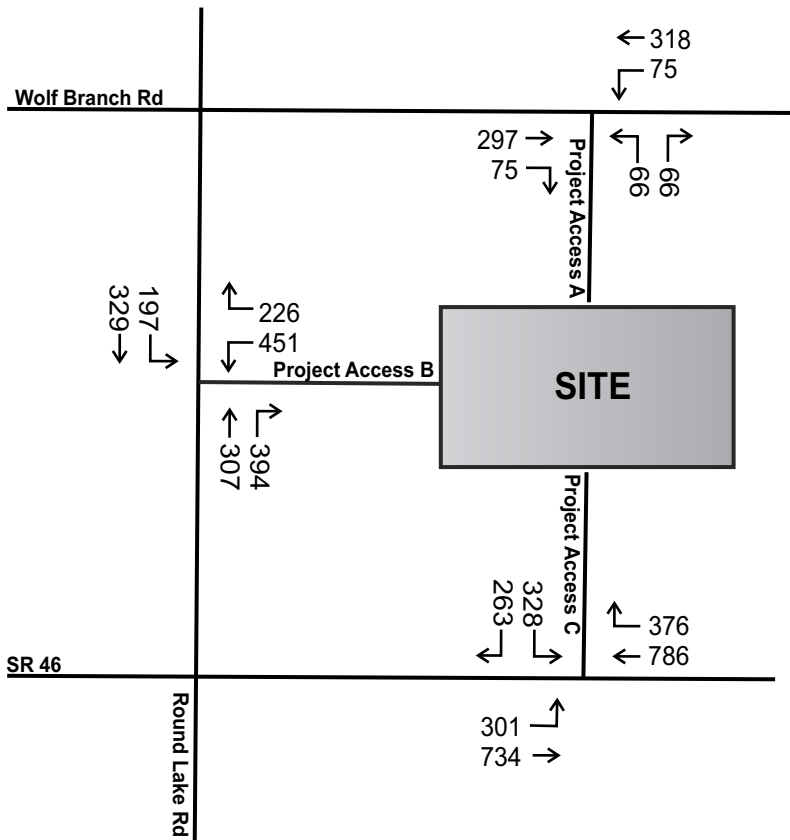
The analysis reveals that the TWSC is projected to operate adequately at the intersection of Wolf Branch Road and Project Access A. The two (2) other study intersections are projected to experience extensive delays at the project access driveway approaches under the TWSC condition. The analysis also reveals that the signal control is projected to provide greater capacity and adequate operations for the Round Lake Road and Project Access B intersection and the SR 46 and Project Access C intersection. The findings are consistent with the signal warrant results.



### AM Peak Hour



### PM Peak Hour



## 9.0 FINDINGS AND RECOMMENDATIONS

This SWA was conducted to evaluate the need and determine the justification for the installation of traffic signal controls for the proposed Richland Mt. Dora North mixed-use development in Lake County, Florida.

The following summarizes the findings and recommendations of the analysis:

- Wolf Branch Road is currently a 2-lane undivided roadway with a posted speed limit of 45 miles per hour (mph) that serves approximately 6,046 existing vehicles per day (vpd). Round Lake Road is a 2-lane undivided roadway with a posted speed limit of 45 mph that serves approximately 6,256 existing vpd. SR 46 is a 2-lane undivided facility with a corresponding posted speed limit of 45 mph that currently serves approximately 14,950 vpd.
- The closest signalized intersections to the three (3) study intersections are at Wolf Branch Road and Round Lake Road and at Round Lake Road and SR 46. The intersections are approximately 2,610 feet, 1,330 feet, and 4,500 feet distances from the Project Access A, Project Access B, and Project Access C intersections, respectively.
- The projected traffic volumes satisfy the criteria of *MUTCD* traffic signal control Warrant 1 and Warrant 2 for the Round Lake Road and Project Access B intersection and the SR 46 and Project Access C intersection. The Wolf Branch Road and Project Access A intersection is not projected to warrant a traffic signal.
- When compared with two-way stop controls, signalization of the two (2) warranted study intersections is projected to decrease the delays for project access approaches while providing adequate operations for the main roadway. The Project Access A intersection is projected to operate at acceptable LOS with a two-way stop control.

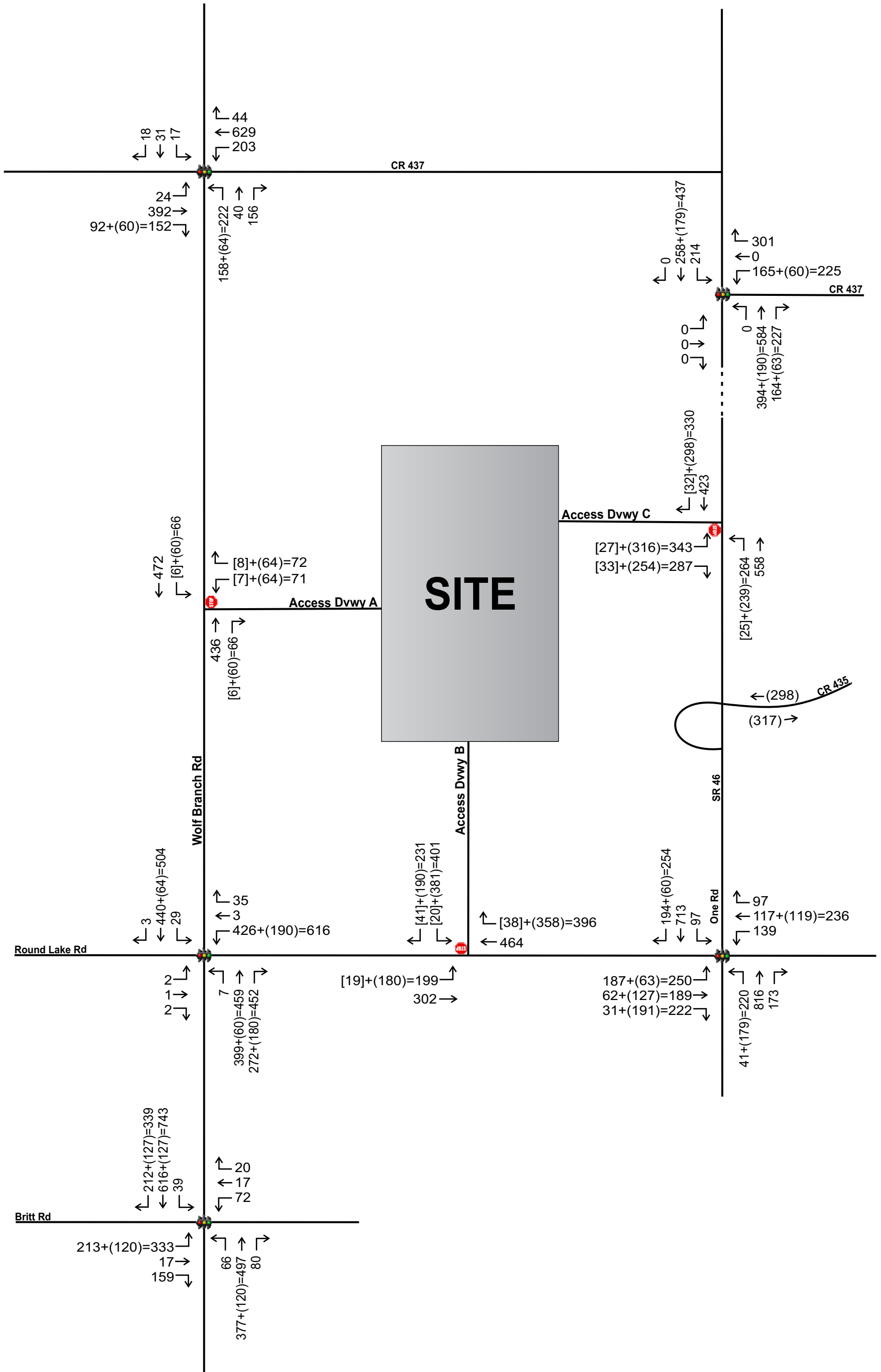
Based on the *MUTCD* and FDOT Signal Warrant Analysis procedures, it was determined that traffic signals are warranted and necessary to provide adequate traffic control at the Round Lake Road and Project Access B and the SR 46 and Project Access C intersections.

## **APPENDICES**

**Appendix A**  
Richland Mt. Dora North TIA Resources







Legend:  
Background + [Passby] + (Project) = Total

### 3.0 PROJECT TRAFFIC

#### 3.1 Trip Generation

Trip generation of the proposed development was calculated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition*. Internal capture and pass-by reductions were determined using the ITE *Trip Generation Handbook, 3<sup>rd</sup> Edition*. The ITE information sheets are provided in **Appendix F**, along with the internal capture and pass-by details. The resulting trip generation analysis is summarized in **Table 3**.

**Table 3  
Trip Generation Analysis**

| ITE Code   | Land Use  | Size        | Daily |        | AM Peak Hour |       |       | PM Peak Hour |      |       |       |       |
|--|---|-------------|-------|--------|--------------|-------|-------|--------------|------|-------|-------|-------|
|  |   |             | Rate  | Trips  | Rate         | Total | Enter | Exit         | Rate | Total | Enter | Exit  |
| 210  | Single Family Residential                         | 87 DU       | 10.20 | 888    | 0.75         | 66    | 16    | 50           | 1.00 | 87    | 55    | 32    |
| 215  | Single Family Attached (Townhomes)                | 2,549 DU    | 7.60  | 19,373 | 0.52         | 1,320 | 330   | 990          | 0.60 | 1,525 | 900   | 625   |
| 230  | Low-Rise Residential with Ground Floor Commercial | 606 DU      | 3.44  | 2,085  | 0.44         | 267   | 61    | 206          | 0.36 | 218   | 155   | 63    |
| 710  | General Office Building                           | 293.334 KSF | 10.09 | 2,960  | 1.44         | 422   | 372   | 50           | 1.38 | 406   | 69    | 337   |
| 760  | Research and Development Center                   | 293.333 KSF | 10.54 | 3,093  | 1.03         | 302   | 248   | 54           | 0.98 | 287   | 46    | 241   |
| 820  | Shopping Center (>150k)                           | 293.333 KSF | 37.01 | 10,859 | 0.84         | 246   | 153   | 94           | 3.40 | 997   | 479   | 518   |
| <b>Total Gross Trip Generation</b>                     |   |             |       | 39,259 |              | 2,624 | 1,180 | 1,444        |      | 3,520 | 1,704 | 1,816 |
| <i>Internal Trips (15.0% Daily, 7.2% AM, 22.7% PM)</i> |   |             |       | 5,889  |              | 186   | 84    | 103          |      | 796   | 384   | 411   |
| <i>Pass-By Retail (34%)</i>                            |   |             |       | 3,138  |              | 78    | 48    | 30           |      | 262   | 126   | 136   |
| <b>Net New External Trips</b>                          |   |             |       | 30,232 |              | 2,360 | 1,048 | 1,311        |      | 2,462 | 1,194 | 1,269 |

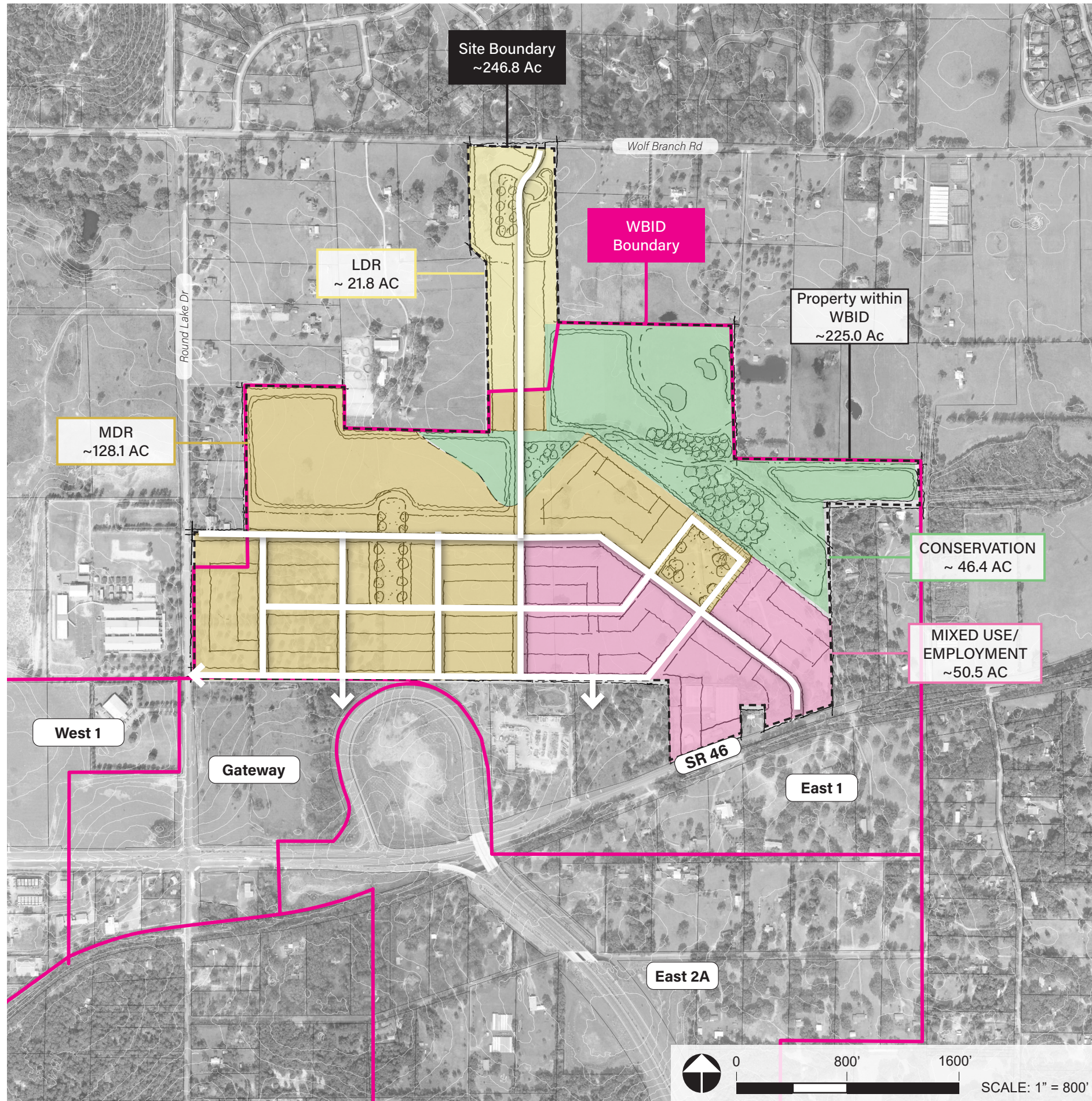
Trip Generation analysis based on ITE Trip Generation Manual, 11th Edition.  
Internal Capture and Pass-By based on ITE Trip Generation Handbook, 3rd Edition

The proposed development is projected to generate 30,232 trips per day, of which 2,360 trips occur during the AM peak hour and 2,462 trips occur during the PM peak hour.



**Appendix B**  
Conceptual Plan

# MOUNT DORA NORTH SITE LAND USE PLAN



| North Site                           |                              |             |                  |           |                        |                         |                              |                               |     |
|--------------------------------------|------------------------------|-------------|------------------|-----------|------------------------|-------------------------|------------------------------|-------------------------------|-----|
| Richland Property                    | Density/Intensity (Proposed) |             | Yield (Proposed) |           | East 1 WBID (Proposed) |                         | East 1 WBID Current Plan Mix | Gateway WBID Current Plan Mix |     |
|                                      | Acres                        | Mix         | Density          | Intensity | Dwelling Units         | Square Feet             | Acres                        | Mix                           |     |
| Low-Density Residential <sup>1</sup> | 21.8                         | 9%          | 4 DU/Ac          |           | 87 DU                  | 2,549                   | 128.1                        | 43%                           | 25% |
| Med-Density Residential              | 128.10                       | 52%         | 18 DU/Ac         |           | <del>2,205</del> DU    | <del>2,199,780</del> SF |                              |                               |     |
| Industrial/Flex                      |                              |             |                  | 0.4 FAR   |                        | 880,000                 |                              |                               | 38% |
| Mixed Use/Employment                 | 50.5                         | 20%         | 12 DU/Ac         |           | 606 DU                 |                         | 118.8                        | 40%                           | 25% |
| Flood Zone/Conservation              | 46.4                         | 19%         |                  |           |                        |                         | 50.4                         | 17%                           |     |
| <b>Total</b>                         | <b>246.8</b>                 | <b>100%</b> |                  |           | <b>2,998 DU</b>        | <b>2,199,780 SF</b>     | <b>297.3</b>                 | <b>100%</b>                   |     |

<sup>1</sup>LDR is located outside the WBID Boundary.

## LEGEND

- WBID Boundary
- Richland North Site Boundary
- Low Density Residential (4 DU/AC)
- Medium Density Residential (18 DU/AC)
- Mixed Use/ Employment
- Conservation
- Flood Zone

**Appendix C**  
Year 2030 Background Traffic Development

COUNTY: 11  
 STATION: 1019  
 DESCRIPTION: ON SR-46, 0.351 MI. E OF CR-437 N (UCLP)  
 START DATE: 06/29/2022  
 START TIME: 0000

| TIME            | DIRECTION: E |     |     |     |       | DIRECTION: W |     |     |     |       | COMBINED TOTAL |       |
|-----------------|--------------|-----|-----|-----|-------|--------------|-----|-----|-----|-------|----------------|-------|
|                 | 1ST          | 2ND | 3RD | 4TH | TOTAL | 1ST          | 2ND | 3RD | 4TH | TOTAL |                |       |
| 0000            | 4            | 9   | 1   | 4   | 18    | 9            | 12  | 4   | 2   | 27    | 45             |       |
| 0100            | 5            | 10  | 3   | 5   | 23    | 9            | 4   | 5   | 2   | 20    | 43             |       |
| 0200            | 3            | 2   | 3   | 2   | 10    | 10           | 4   | 5   | 3   | 22    | 32             |       |
| 0300            | 1            | 6   | 4   | 2   | 13    | 5            | 6   | 7   | 8   | 26    | 39             |       |
| 0400            | 16           | 12  | 16  | 17  | 61    | 6            | 6   | 16  | 19  | 47    | 108            |       |
| 0500            | 25           | 26  | 25  | 59  | 135   | 19           | 28  | 43  | 47  | 137   | 272            |       |
| 0600            | 53           | 67  | 77  | 74  | 271   | 54           | 66  | 81  | 92  | 293   | 564            |       |
| 0700            | 76           | 103 | 83  | 78  | 340   | 90           | 116 | 124 | 129 | 459   | 799            |       |
| 0800            | 111          | 89  | 74  | 85  | 359   | 113          | 104 | 96  | 101 | 414   | 773            |       |
| 0900            | 84           | 108 | 81  | 62  | 335   | 93           | 79  | 114 | 79  | 365   | 700            |       |
| 1000            | 96           | 79  | 102 | 56  | 333   | 81           | 71  | 85  | 75  | 312   | 645            |       |
| 1100            | 84           | 108 | 80  | 92  | 364   | 84           | 88  | 93  | 97  | 362   | 726            |       |
| 1200            | 102          | 94  | 94  | 92  | 382   | 94           | 97  | 99  | 107 | 397   | 779            |       |
| 1300            | 95           | 99  | 105 | 82  | 381   | 96           | 100 | 99  | 88  | 383   | 764            |       |
| 1400            | 80           | 96  | 88  | 93  | 357   | 90           | 88  | 99  | 108 | 385   | 742            |       |
| 1500            | 86           | 109 | 110 | 99  | 404   | 88           | 108 | 96  | 112 | 404   | 808            |       |
| 1600            | 114          | 121 | 106 | 126 | 467   | 111          | 95  | 116 | 125 | 447   | 914            |       |
| 1700            | 134          | 135 | 135 | 117 | 521   | 143          | 122 | 163 | 130 | 558   | 1079           |       |
| 1800            | 100          | 114 | 79  | 100 | 393   | 118          | 111 | 113 | 110 | 452   | 845            |       |
| 1900            | 84           | 62  | 78  | 67  | 291   | 67           | 80  | 73  | 70  | 290   | 581            |       |
| 2000            | 67           | 63  | 40  | 53  | 223   | 62           | 63  | 56  | 45  | 226   | 449            |       |
| 2100            | 51           | 42  | 46  | 41  | 180   | 37           | 40  | 43  | 24  | 144   | 324            |       |
| 2200            | 29           | 23  | 24  | 20  | 96    | 28           | 18  | 13  | 19  | 78    | 174            |       |
| 2300            | 16           | 15  | 22  | 13  | 66    | 10           | 15  | 13  | 8   | 46    | 112            |       |
| 24-HOUR TOTALS: |              |     |     |     | 6023  |              |     |     |     |       | 6294           | 12317 |

PEAK VOLUME INFORMATION

|       | DIRECTION: E |        | DIRECTION: W |        | COMBINED DIRECTIONS |        |
|-------|--------------|--------|--------------|--------|---------------------|--------|
|       | HOUR         | VOLUME | HOUR         | VOLUME | HOUR                | VOLUME |
| A.M.  | 715          | 375    | 715          | 482    | 715                 | 857    |
| P.M.  | 1645         | 530    | 1700         | 558    | 1645                | 1083   |
| DAILY | 1645         | 530    | 1700         | 558    | 1645                | 1083   |

TRUCK PERCENTAGE      3.72                                      6.40                                      5.09

CLASSIFICATION SUMMARY DATABASE

| DIR | 1 | 2    | 3    | 4  | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12 | 13 | 14 | 15 | TOTTRK | TOTVOL |
|-----|---|------|------|----|-----|---|---|-----|---|----|----|----|----|----|----|--------|--------|
| E   | 5 | 3986 | 1808 | 1  | 110 | 1 | 1 | 108 | 2 | 0  | 1  | 0  | 0  | 0  | 0  | 224    | 6023   |
| W   | 4 | 3954 | 1933 | 11 | 264 | 3 | 0 | 122 | 2 | 0  | 1  | 0  | 0  | 0  | 0  | 403    | 6294   |

COUNTY: 11  
 STATION: 1019  
 DESCRIPTION: ON SR-46, 0.351 MI. E OF CR-437 N (UCLP)  
 START DATE: 06/30/2022  
 START TIME: 0000

| TIME            | DIRECTION: E |     |     |     |       | DIRECTION: W |     |     |     |       | COMBINED TOTAL |
|-----------------|--------------|-----|-----|-----|-------|--------------|-----|-----|-----|-------|----------------|
|                 | 1ST          | 2ND | 3RD | 4TH | TOTAL | 1ST          | 2ND | 3RD | 4TH | TOTAL |                |
| 0000            | 13           | 8   | 7   | 6   | 34    | 13           | 7   | 7   | 8   | 35    | 69             |
| 0100            | 6            | 10  | 1   | 4   | 21    | 5            | 5   | 2   | 6   | 18    | 39             |
| 0200            | 5            | 5   | 3   | 2   | 15    | 6            | 1   | 1   | 4   | 12    | 27             |
| 0300            | 4            | 6   | 7   | 6   | 23    | 6            | 3   | 5   | 13  | 27    | 50             |
| 0400            | 12           | 16  | 20  | 11  | 59    | 5            | 6   | 14  | 17  | 42    | 101            |
| 0500            | 17           | 21  | 36  | 42  | 116   | 30           | 31  | 47  | 61  | 169   | 285            |
| 0600            | 60           | 75  | 80  | 77  | 292   | 48           | 53  | 95  | 82  | 278   | 570            |
| 0700            | 80           | 94  | 88  | 79  | 341   | 82           | 106 | 116 | 124 | 428   | 769            |
| 0800            | 109          | 90  | 69  | 99  | 367   | 126          | 98  | 104 | 89  | 417   | 784            |
| 0900            | 93           | 98  | 93  | 96  | 380   | 78           | 108 | 92  | 76  | 354   | 734            |
| 1000            | 77           | 94  | 76  | 78  | 325   | 88           | 88  | 96  | 83  | 355   | 680            |
| 1100            | 89           | 87  | 85  | 105 | 366   | 82           | 99  | 106 | 92  | 379   | 745            |
| 1200            | 102          | 102 | 98  | 95  | 397   | 94           | 106 | 94  | 83  | 377   | 774            |
| 1300            | 93           | 95  | 102 | 87  | 377   | 105          | 92  | 93  | 96  | 386   | 763            |
| 1400            | 92           | 98  | 88  | 101 | 379   | 102          | 109 | 96  | 130 | 437   | 816            |
| 1500            | 92           | 90  | 98  | 92  | 372   | 92           | 97  | 96  | 110 | 395   | 767            |
| 1600            | 126          | 126 | 130 | 105 | 487   | 125          | 116 | 120 | 125 | 486   | 973            |
| 1700            | 142          | 136 | 135 | 105 | 518   | 128          | 130 | 134 | 126 | 518   | 1036           |
| 1800            | 119          | 96  | 68  | 66  | 349   | 114          | 125 | 100 | 117 | 456   | 805            |
| 1900            | 90           | 84  | 59  | 65  | 298   | 65           | 78  | 69  | 60  | 272   | 570            |
| 2000            | 63           | 53  | 55  | 62  | 233   | 47           | 49  | 46  | 33  | 175   | 408            |
| 2100            | 34           | 32  | 49  | 29  | 144   | 35           | 31  | 27  | 34  | 127   | 271            |
| 2200            | 35           | 28  | 26  | 20  | 109   | 26           | 12  | 28  | 18  | 84    | 193            |
| 2300            | 26           | 29  | 11  | 9   | 75    | 19           | 19  | 12  | 8   | 58    | 133            |
| 24-HOUR TOTALS: | 6077         |     |     |     |       | 6285         |     |     |     |       | 12362          |

PEAK VOLUME INFORMATION

|       | DIRECTION: E |        | DIRECTION: W |        | COMBINED DIRECTIONS |        |
|-------|--------------|--------|--------------|--------|---------------------|--------|
|       | HOUR         | VOLUME | HOUR         | VOLUME | HOUR                | VOLUME |
| A.M.  | 845          | 383    | 715          | 472    | 715                 | 842    |
| P.M.  | 1645         | 518    | 1700         | 518    | 1700                | 1036   |
| DAILY | 1645         | 518    | 1700         | 518    | 1700                | 1036   |

TRUCK PERCENTAGE      4.26                              6.84                              5.57

CLASSIFICATION SUMMARY DATABASE

| DIR | 1 | 2    | 3    | 4  | 5   | 6 | 7 | 8   | 9 | 10 | 11 | 12 | 13 | 14 | 15 | TOTTRK | TOTVOL |
|-----|---|------|------|----|-----|---|---|-----|---|----|----|----|----|----|----|--------|--------|
| E   | 0 | 3998 | 1820 | 4  | 114 | 8 | 0 | 128 | 4 | 0  | 1  | 0  | 0  | 0  | 0  | 259    | 6077   |
| W   | 2 | 3885 | 1968 | 14 | 283 | 9 | 1 | 122 | 1 | 0  | 0  | 0  | 0  | 0  | 0  | 430    | 6285   |



**Background Traffic - Hourly Distribution**  
**FDOT Count Sta. No. 111019**

| <b>All Roads</b>  |              |       |              |       |                     |                |
|-------------------|--------------|-------|--------------|-------|---------------------|----------------|
| <b>Begin Time</b> | <b>EB/NB</b> |       | <b>WB/SB</b> |       | <b>Total Volume</b> | <b>Percent</b> |
| 0:00              | 18           | 40.0% | 27           | 60.0% | 45                  | 0.37%          |
| 1:00              | 23           | 53.5% | 20           | 46.5% | 43                  | 0.35%          |
| 2:00              | 10           | 31.3% | 22           | 68.8% | 32                  | 0.26%          |
| 3:00              | 13           | 33.3% | 26           | 66.7% | 39                  | 0.32%          |
| 4:00              | 61           | 56.5% | 47           | 43.5% | 108                 | 0.88%          |
| 5:00              | 135          | 49.6% | 137          | 50.4% | 272                 | 2.21%          |
| 6:00              | 271          | 48.0% | 293          | 52.0% | 564                 | 4.58%          |
| 7:00              | 340          | 42.6% | 459          | 57.4% | 799                 | 6.49%          |
| 8:00              | 359          | 46.4% | 414          | 53.6% | 773                 | 6.28%          |
| 9:00              | 335          | 47.9% | 365          | 52.1% | 700                 | 5.68%          |
| 10:00             | 333          | 51.6% | 312          | 48.4% | 645                 | 5.24%          |
| 11:00             | 364          | 50.1% | 362          | 49.9% | 726                 | 5.89%          |
| 12:00             | 382          | 49.0% | 397          | 51.0% | 779                 | 6.32%          |
| 13:00             | 381          | 49.9% | 383          | 50.1% | 764                 | 6.20%          |
| 14:00             | 357          | 48.1% | 385          | 51.9% | 742                 | 6.02%          |
| 15:00             | 404          | 50.0% | 404          | 50.0% | 808                 | 6.56%          |
| 16:00             | 467          | 51.1% | 447          | 48.9% | 914                 | 7.42%          |
| 17:00             | 521          | 48.3% | 558          | 51.7% | 1079                | 8.76%          |
| 18:00             | 393          | 46.5% | 452          | 53.5% | 845                 | 6.86%          |
| 19:00             | 291          | 50.1% | 290          | 49.9% | 581                 | 4.72%          |
| 20:00             | 223          | 49.7% | 226          | 50.3% | 449                 | 3.65%          |
| 21:00             | 180          | 55.6% | 144          | 44.4% | 324                 | 2.63%          |
| 22:00             | 96           | 55.2% | 78           | 44.8% | 174                 | 1.41%          |
| 23:00             | 66           | 58.9% | 46           | 41.1% | 112                 | 0.91%          |
| <b>Total</b>      | 6023         | 48.9% | 6294         | 51.1% | 12317               | 100%           |

**Background Traffic - Hourly Volumes  
Growth Derived Volumes (2% per Year)**

| Begin<br>Time | Wolf Branch Road |      |
|---------------|------------------|------|
|               | EB               | WB   |
|               | Thru             | Thru |
| 0:00          | 10               | 15   |
| 1:00          | 13               | 11   |
| 2:00          | 6                | 13   |
| 3:00          | 7                | 15   |
| 4:00          | 35               | 27   |
| 5:00          | 77               | 78   |
| 6:00          | 154              | 167  |
| 7:00          | 194              | 261  |
| 8:00          | 204              | 236  |
| 9:00          | 191              | 208  |
| 10:00         | 190              | 178  |
| 11:00         | 207              | 206  |
| 12:00         | 218              | 226  |
| 13:00         | 217              | 218  |
| 14:00         | 203              | 219  |
| 15:00         | 230              | 230  |
| 16:00         | 266              | 255  |
| 17:00         | 297              | 318  |
| 18:00         | 224              | 257  |
| 19:00         | 166              | 165  |
| 20:00         | 127              | 129  |
| 21:00         | 102              | 82   |
| 22:00         | 55               | 44   |
| 23:00         | 38               | 26   |
| Total         | 3430             | 3584 |
| Total         | 7013             |      |

| Begin<br>Time | Round Lake Rd |      |
|---------------|---------------|------|
|               | NB            | SB   |
|               | Thru          | Thru |
| 0:00          | 11            | 16   |
| 1:00          | 14            | 12   |
| 2:00          | 6             | 13   |
| 3:00          | 8             | 15   |
| 4:00          | 36            | 28   |
| 5:00          | 80            | 81   |
| 6:00          | 160           | 173  |
| 7:00          | 200           | 270  |
| 8:00          | 212           | 244  |
| 9:00          | 197           | 215  |
| 10:00         | 196           | 184  |
| 11:00         | 214           | 213  |
| 12:00         | 225           | 234  |
| 13:00         | 224           | 226  |
| 14:00         | 210           | 227  |
| 15:00         | 238           | 238  |
| 16:00         | 275           | 263  |
| 17:00         | 307           | 329  |
| 18:00         | 232           | 266  |
| 19:00         | 171           | 171  |
| 20:00         | 131           | 133  |
| 21:00         | 106           | 85   |
| 22:00         | 57            | 46   |
| 23:00         | 39            | 27   |
| Total         | 3549          | 3708 |
| Total         | 7257          |      |

| Begin<br>Time | SR 46 |      |
|---------------|-------|------|
|               | EB    | WB   |
|               | Thru  | Thru |
| 0:00          | 25    | 38   |
| 1:00          | 32    | 28   |
| 2:00          | 14    | 31   |
| 3:00          | 18    | 37   |
| 4:00          | 86    | 66   |
| 5:00          | 190   | 193  |
| 6:00          | 382   | 413  |
| 7:00          | 479   | 646  |
| 8:00          | 505   | 583  |
| 9:00          | 472   | 514  |
| 10:00         | 469   | 439  |
| 11:00         | 513   | 510  |
| 12:00         | 538   | 559  |
| 13:00         | 536   | 539  |
| 14:00         | 503   | 542  |
| 15:00         | 569   | 569  |
| 16:00         | 658   | 629  |
| 17:00         | 734   | 786  |
| 18:00         | 553   | 636  |
| 19:00         | 410   | 408  |
| 20:00         | 314   | 318  |
| 21:00         | 253   | 203  |
| 22:00         | 135   | 110  |
| 23:00         | 93    | 65   |
| Total         | 8480  | 8862 |
| Total         | 17342 |      |

Lake County CMP Database

| SEGMENT ID | COUNTY STATION | FOOT STATION | DATA SOURCE | SPEED LIMIT | SEGMENT LENGTH (MI) | ROAD NAME             | FROM                            | TO                              | LANES (2022) | LANES (2027) | URBAN / RURAL | DIVIDED / UNDIVIDED | MAINTAINING AGENCY | JURISDICTION               | ADOPTED LOS STANDARD | DAILY SERVICE VOLUME | 2022 ADT | 2022 DAILY V/C | 2022 DAILY LOS | PEAK HOUR DIRECTIONAL SERVICE VOLUME | 2022 PEAK HOUR NB/EB VOLUME | 2022 PEAK HOUR SB/WB VOLUME | 2022 PEAK HOUR V/C | 2022 PEAK HOUR LOS | GROWTH RATE | DAILY SERVICE VOLUME (2027) | 2027 ADT | 2027 DAILY V/C | 2027 DAILY LOS | PEAK HOUR DIRECTIONAL SERVICE VOLUME (2027) | 2027 PEAK HOUR NB/EB VOLUME | 2027 PEAK HOUR SB/WB VOLUME | 2027 PEAK HOUR V/C | 2027 PEAK HOUR LOS |   |
|------------|----------------|--------------|-------------|-------------|---------------------|-----------------------|---------------------------------|---------------------------------|--------------|--------------|---------------|---------------------|--------------------|----------------------------|----------------------|----------------------|----------|----------------|----------------|--------------------------------------|-----------------------------|-----------------------------|--------------------|--------------------|-------------|-----------------------------|----------|----------------|----------------|---|-----------------------------|-----------------------------|--------------------|--------------------|---|
| 2030       | 479            |              | County      | 30          | 0.36                | GROVE STREET          | SR 19 (BADGER AVENUE)           | LAKEVIEW AVENUE                 | 2            | 2            | URBAN         | UNDIVIDED           | CITY OF EUSTIS     | CITY OF EUSTIS             | D                    | 10,360               | 1,475    | 0.14           | C              | 530                                  | 24                          | 106                         | 0.20               | C                  | 1.00%       | 10,360                      | 1,550    | 0.15           | C              | 530   | 25                          | 111                         | 0.21               | C                  |   |
| 2040       | 472            |              | County      | 30          | 0.37                | GROVE STREET          | LAKEVIEW AVENUE                 | GOLFLINKS AVENUE                | 2            | 2            | URBAN         | UNDIVIDED           | CITY OF EUSTIS     | CITY OF EUSTIS             | D                    | 10,360               | 2,561    | 0.25           | C              | 530                                  | 160                         | 71                          | 0.30               | C                  | 1.00%       | 10,360                      | 2,692    | 0.26           | C              | 530   | 168                         | 75                          | 0.32               | C                  |   |
| 2045       | 465            | 117017       | County      | 25          | 0.50                | GROVE STREET          | GOLFLINKS AVENUE                | OLD MT DORA ROAD                | 2            | 2            | URBAN         | UNDIVIDED           | CITY OF EUSTIS     | CITY OF EUSTIS             | D                    | 10,360               | 3,733    | 0.36           | C              | 530                                  | 140                         | 250                         | 0.47               | C                  | 1.00%       | 10,360                      | 3,923    | 0.38           | C              | 530   | 148                         | 263                         | 0.50               | D                  |   |
| 2050       | 21             |              | County      | 35          | 2.14                | HAMMOCK RIDGE         | LAKE SHORE DRIVE                | LAKE SHORE DRIVE                | 4            | 4            | URBAN         | DIVIDED             | COUNTY             | CITY OF CLERMONT           | D                    | 59,580               | 18,440   | 0.31           | B              | 2,950                                | 479                         | 1,149                       | 0.39               | B                  | 2.25%       | 59,580                      | 20,610   | 0.35           | B              | 2,950                                       | 536                         | 1,284                       | 0.44               | B                  |   |
| 2054       | 312            |              | County      | 45          | 1.70                | N. HANCOCK ROAD       | C.R. 561A                       | SR 91 (FLORIDA TURNPIKE)        | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF CLERMONT           | D                    | 15,930               | 6,090    | 0.38           | C              | 790                                  | 350                         | 195                         | 0.44               | C                  | 1.00%       | 15,930                      | 6,400    | 0.40           | C              | 790   | 368                         | 205                         | 0.47               | C                  |   |
| 2055       | 313            |              | County      | 45          | 1.97                | N. HANCOCK ROAD       | SR 91 (FLORIDA TURNPIKE)        | OLD HWY 50 (W)                  | 4            | 4            | URBAN         | DIVIDED             | COUNTY             | CITY OF CLERMONT           | D                    | 37,810               | 10,757   | 0.28           | C              | 1,900                                | 395                         | 557                         | 0.29               | C                  | 1.00%       | 37,810                      | 11,306   | 0.30           | C              | 1,900                                       | 415                         | 586                         | 0.31               | C                  |   |
| 2056       | 313            | ADJACENT     | County      | 45          | 0.28                | N. HANCOCK ROAD       | OLD HWY 50 (E)                  | OLD HWY 50 (E)                  | 4            | 4            | URBAN         | DIVIDED             | COUNTY             | CITY OF CLERMONT           | D                    | 35,820               | 10,757   | 0.30           | C              | 1,800                                | 395                         | 557                         | 0.31               | C                  | 1.00%       | 35,820                      | 11,306   | 0.32           | C              | 1,800                                       | 415                         | 586                         | 0.33               | C                  |   |
| 2060       | 207            |              | County      | 35          | 0.29                | N. HANCOCK ROAD       | OLD HWY 50 (E)                  | N RIDGE BOULEVARD               | 4            | 4            | URBAN         | DIVIDED             | COUNTY             | CITY OF CLERMONT           | D                    | 30,780               | 17,674   | 0.57           | D              | 1,550                                | 758                         | 735                         | 0.49               | D                  | 1.00%       | 30,780                      | 18,576   | 0.60           | D              | 1,550                                       | 797                         | 773                         | 0.51               | D                  |   |
| 2070       | 39             |              | County      | 45          | 1.50                | N. HANCOCK ROAD       | N RIDGE BOULEVARD               | SR 50                           | 4            | 4            | URBAN         | DIVIDED             | COUNTY             | CITY OF CLERMONT           | D                    | 37,810               | 17,618   | 0.47           | C              | 1,900                                | 680                         | 820                         | 0.43               | C                  | 1.00%       | 37,810                      | 18,516   | 0.49           | C              | 1,900                                       | 715                         | 862                         | 0.45               | C                  |   |
| 2080       | 35             |              | County      | 45          | 0.25                | S. HANCOCK ROAD       | SR 50                           | HOOKS STREET                    | 4            | 4            | URBAN         | DIVIDED             | COUNTY             | CITY OF CLERMONT           | D                    | 35,820               | 22,918   | 0.64           | C              | 1,800                                | 734                         | 999                         | 0.55               | C                  | 2.25%       | 35,820                      | 25,615   | 0.72           | C              | 1,800                                       | 821                         | 1,116                       | 0.62               | C                  |   |
| 2085       | 35             | ADJACENT     | County      | 45          | 1.23                | S. HANCOCK ROAD       | HOOKS STREET                    | HOOKS STREET                    | 2            | 2            | URBAN         | DIVIDED             | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 17,660               | 22,918   | 1.30           | F              | 880                                  | 734                         | 999                         | 1.13               | F                  | 2.25%       | 17,660                      | 25,615   | 1.45           | F              | 880   | 821                         | 1,116                       | 1.27               | F                  |   |
| 2090       | 17             |              | County      | 45          | 1.75                | S. HANCOCK ROAD       | JOHNS LAKE ROAD                 | HARTWOOD MARSH ROAD             | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF CLERMONT           | D                    | 16,820               | 12,491   | 0.74           | C              | 840                                  | 410                         | 487                         | 0.58               | C                  | 1.50%       | 16,820                      | 13,456   | 0.80           | C              | 840   | 441                         | 525                         | 0.63               | C                  |   |
| 2100       | 15             |              | County      | 40          | 0.70                | HARTWOOD MARSH ROAD   | US 27                           | HANCOCK ROAD                    | 2            | 4            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 15,930               | 17,664   | 1.11           | F              | 790                                  | 560                         | 873                         | 1.10               | F                  | 2.75%       | 15,930                      | 20,230   | 0.96           | C              | 1,800                                       | 641                         | 999                         | 0.56               | C                  |   |
| 2104       | AVG (146,150)  |              | AVERAGE     | 40          | 1.41                | HARTWOOD MARSH ROAD   | HANCOCK ROAD                    | N. 90 DEGREE BEND               | 2            | 4            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 16,820               | 14,536   | 0.86           | C              | 840                                  | 410                         | 487                         | 0.58               | C                  | N/A         | 16,820                      | 16,110   | 0.43           | C              | 1,800                                       | 494                         | 854                         | 0.45               | C                  |   |
| 2110       | 20             |              | County      | 40          | 2.47                | HARTWOOD MARSH ROAD   | N. 90 DEGREE BEND               | ORANGE COUNTY LINE              | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 21,780               | 11,408   | 0.52           | C              | 1,080                                | 330                         | 674                         | 0.62               | C                  | 1.00%       | 21,780                      | 11,989   | 0.55           | C              | 1,080                                       | 347                         | 708                         | 0.66               | C                  |   |
| 2120       | 485            |              | County      | 30          | 0.75                | HASELTON STREET       | SR 44                           | LAKEVIEW AVENUE                 | 2            | 2            | URBAN         | UNDIVIDED           | CITY OF EUSTIS     | CITY OF EUSTIS             | D                    | 10,360               | 1,646    | 0.16           | C              | 530                                  | 80                          | 94                          | 0.18               | C                  | 1.00%       | 10,360                      | 1,730    | 0.17           | C              | 530   | 84                          | 99                          | 0.19               | C                  |   |
| 2130       | 605            |              | County      | 25          | 1.01                | HIGHLAND STREET       | LIMIT AVENUE                    | 5TH AVENUE                      | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF MOUNT DORA         | D                    | 10,360               | 2,792    | 0.27           | C              | 530                                  | 179                         | 127                         | 0.34               | C                  | 3.50%       | 10,360                      | 3,316    | 0.32           | C              | 530   | 213                         | 150                         | 0.40               | C                  |   |
| 2140       | 32             |              | County      | 30          | 0.35                | HOOKS STREET          | LAKEHORE DRIVE                  | LAKEHORE DRIVE                  | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF CLERMONT           | D                    | 10,360               | 6,972    | 0.67           | D              | 530                                  | 291                         | 349                         | 0.68               | D                  | 1.00%       | 10,360                      | 7,327    | 0.71           | D              | 530   | 305                         | 367                         | 0.69               | D                  |   |
| 2150       | 31             |              | County      | 40          | 0.84                | HOOKS STREET          | US 27                           | OAKLEY SEAVER DRIVE             | 4            | 4            | URBAN         | DIVIDED             | COUNTY             | CITY OF CLERMONT           | D                    | 35,820               | 11,413   | 0.32           | C              | 1,800                                | 479                         | 508                         | 0.28               | C                  | 1.75%       | 35,820                      | 12,447   | 0.35           | C              | 1,800                                       | 523                         | 555                         | 0.31               | C                  |   |
| 2153       | 33             |              | County      | 35          | 0.27                | HOOKS STREET          | OAKLEY SEAVER DRIVE             | CITRUS TOWER BOULEVARD          | 4            | 4            | URBAN         | DIVIDED             | COUNTY             | CITY OF CLERMONT           | D                    | 29,160               | 13,218   | 0.45           | D              | 1,470                                | 648                         | 427                         | 0.44               | D                  | 1.00%       | 29,160                      | 13,892   | 0.48           | D              | 1,470                                       | 681                         | 448                         | 0.46               | D                  |   |
| 2155       | 34             |              | County      | 35          | 1.05                | HOOKS STREET          | CITRUS TOWER BOULEVARD          | HANCOCK ROAD                    | 4            | 4            | URBAN         | DIVIDED             | COUNTY             | CITY OF CLERMONT           | D                    | 29,160               | 11,419   | 0.39           | C              | 1,470                                | 395                         | 622                         | 0.42               | C                  | 1.00%       | 29,160                      | 12,001   | 0.41           | C              | 1,470                                       | 416                         | 654                         | 0.44               | C                  |   |
| 2160       | 456            | 117021       | County      | 35          | 0.59                | HOOKS STREET          | DAVID WALKER DRIVE              | KURT STREET                     | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF EUSTIS             | D                    | 10,360               | 1,169    | 0.11           | C              | 530                                  | 79                          | 53                          | 0.15               | C                  | 1.00%       | 10,360                      | 1,229    | 0.12           | C              | 530   | 83                          | 56                          | 0.16               | C                  |   |
| 2170       | 224            |              | County      | 35          | 0.35                | JALARMY ROAD          | CR 478                          | CR 561A                         | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 10,360               | 6,226    | 0.60           | D              | 530                                  | 273                         | 222                         | 0.52               | D                  | 8.50%       | 10,360                      | 9,362    | 0.90           | D              | 530   | 411                         | 333                         | 0.78               | D                  |   |
| 2180       | 26             |              | County      | 35          | 1.57                | JOHNS LAKE ROAD       | US 27                           | HANCOCK ROAD                    | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF CLERMONT           | D                    | 14,060               | 8,972    | 0.64           | D              | 710                                  | 596                         | 403                         | 0.84               | D                  | 2.75%       | 14,060                      | 10,276   | 0.73           | D              | 710   | 683                         | 461                         | 0.96               | D                  |   |
| 2190       | 473            |              | County      | 35          | 0.25                | KURT STREET           | W LAKEVIEW AVENUE               | DAVID WALKER DRIVE              | 2            | 2            | URBAN         | UNDIVIDED           | CITY OF EUSTIS     | CITY OF EUSTIS             | D                    | 10,360               | 8,710    | 0.84           | D              | 530                                  | 546                         | 292                         | 1.03               | E                  | 1.00%       | 10,360                      | 9,154    | 0.88           | D              | 530   | 574                         | 307                         | 1.08               | F                  |   |
| 2200       | 469            |              | County      | 35          | 0.50                | KURT STREET           | DAVID WALKER DRIVE              | MT HOMER ROAD / W ARDICE AVENUE | 2            | 2            | URBAN         | UNDIVIDED           | CITY OF EUSTIS     | CITY OF EUSTIS             | D                    | 14,060               | 4,334    | 0.31           | C              | 710                                  | 179                         | 246                         | 0.35               | C                  | 1.00%       | 14,060                      | 4,555    | 0.32           | C              | 710   | 188                         | 259                         | 0.36               | C                  |   |
| 2205       | 455            |              | County      | 35          | 0.42                | KURT STREET           | MT HOMER ROAD / W ARDICE AVENUE | US 441                          | 2            | 2            | URBAN         | UNDIVIDED           | CITY OF EUSTIS     | CITY OF EUSTIS             | D                    | 14,060               | 5,512    | 0.39           | C              | 710                                  | 261                         | 281                         | 0.40               | C                  | 1.00%       | 14,060                      | 5,793    | 0.41           | C              | 710   | 275                         | 295                         | 0.42               | C                  |   |
| 2210       | 520            |              | County      | 25          | 0.45                | W LADY LAKE BOULEVARD | WEST TERMINI                    | US 27/US441                     | 2            | 2            | URBAN         | UNDIVIDED           | TOWN OF LADY LAKE  | TOWN OF LADY LAKE          | D                    | 10,360               | 1,298    | 0.13           | C              | 530                                  | 66                          | 39                          | 0.12               | C                  | 1.00%       | 10,360                      | 1,364    | 0.13           | C              | 530   | 69                          | 41                          | 0.13               | C                  |   |
| 2220       | 521            |              | County      | 25          | 0.96                | E LADY LAKE BOULEVARD | US 27/US441                     | BERCHFIELD ROAD                 | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | TOWN OF LADY LAKE          | D                    | 10,360               | 618      | 0.06           | C              | 530                                  | 38                          | 21                          | 0.07               | C                  | 1.00%       | 10,360                      | 650      | 0.06           | C              | 530   | 40                          | 22                          | 0.08               | C                  |   |
| 2230       | 408            |              | County      | 35          | 0.56                | FAIRVIEW AVENUE       | OLD 441 / CR 500A               | LAKEHORE DRIVE                  | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 10,360               | 680      | 0.07           | C              | 530                                  | 43                          | 24                          | 0.08               | C                  | 1.00%       | 10,360                      | 715      | 0.07           | C              | 530   | 45                          | 25                          | 0.08               | C                  |   |
| 2240       | 0              |              | NO COUNTY   | 40          | 0.64                | LAKE DRIVE            | SR 44                           | COUNTRY ROAD                    | 2            | 2            | RURAL         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | C                    | 9,030                | -        | -              | -              | -                                    | -                           | -                           | -                  | -                  | -           | N/A                         | 9,030    | -              | -              | -   | -                           | -                           | -                  | -                  | - |
| 2250       | 509            |              | County      | 35          | 0.50                | LAKE ELLA ROAD        | SUMTER COUNTY LINE              | MICRO RACETRACK ROAD            | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 10,360               | 2,817    | 0.27           | C              | 530                                  | 175                         | 101                         | 0.33               | C                  | 6.50%       | 10,360                      | 3,859    | 0.37           | C              | 530   | 239                         | 138                         | 0.45               | C                  |   |
| 2254       | 511            | ADJACENT     | County      | 35          | 0.51                | LAKE ELLA ROAD        | MICRO RACETRACK ROAD            | ROLLING ACRES ROAD              | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 10,360               | 1,652    | 0.16           | C              | 530                                  | 66                          | 71                          | 0.13               | C                  | 1.00%       | 10,360                      | 1,737    | 0.17           | C              | 530   | 70                          | 75                          | 0.14               | C                  |   |
| 2255       | 511            |              | County      | 45          | 1.91                | LAKE ELLA ROAD        | ROLLING ACRES ROAD              | US 27                           | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 16,820               | 1,652    | 0.10           | C              | 840                                  | 66                          | 71                          | 0.08               | C                  | 1.00%       | 16,820                      | 1,737    | 0.10           | C              | 840   | 70                          | 75                          | 0.09               | C                  |   |
| 2260       | 7              |              | County      | 35          | 5.01                | LAKE ERIE ROAD        | CR 565                          | SR 33                           | 2            | 2            | RURAL         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | C                    | 7,740                | 884      | 0.11           | B              | 410                                  | 23                          | 47                          | 0.12               | B                  | 5.00%       | 7,740                       | 1,128    | 0.15           | B              | 410   | 29                          | 61                          | 0.15               | B                  |   |
| 2270       | 448            |              | County      | 35          | 1.59                | LAKE EUSTIS DRIVE     | US 441                          | CLAY BOULEVARD                  | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | EUSTIS/TAVERES             | D                    | 14,060               | 7,262    | 0.52           | D              | 710                                  | 330                         | 285                         | 0.46               | C                  | 1.75%       | 14,060                      | 7,920    | 0.56           | D              | 710   | 360                         | 311                         | 0.51               | D                  |   |
| 2280       | 19             |              | County      | 40          | 2.57                | LAKE LOUISA ROAD      | LAKEHORE DRIVE                  | VISTA DEL LAGO BOULEVARD        | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 21,780               | 5,071    | 0.23           | B              | 1,080                                | 266                         | 545                         | 0.50               | C                  | 3.75%       |                             |          |                |                |   |                             |                             |                    |                    |   |

Lake County CMP Database

| SEGMENT ID | COUNTY STATION | FOOT STATION | DATA SOURCE | SPEED LIMIT | SEGMENT LENGTH (MI) | ROAD NAME            | FROM                          | TO                            | LANES (2022) | LANES (2027) | URBAN / RURAL | DIVIDED / UNDIVIDED | MAINTAINING AGENCY | JURISDICTION                 | ADOPTED LOS STANDARD | DAILY SERVICE VOLUME | 2022 AADT | 2022 DAILY V/C | 2022 DAILY LOS | PEAK HOUR DIRECTIONAL SERVICE VOLUME | 2022 PEAK HOUR NB/EB VOLUME | 2022 PEAK HOUR SB/WB VOLUME | 2022 PEAK HOUR V/C | 2022 PEAK HOUR LOS | GROWTH RATE | DAILY SERVICE VOLUME (2027) | 2027 AADT | 2027 DAILY V/C | 2027 DAILY LOS | PEAK HOUR DIRECTIONAL SERVICE VOLUME (2027) | 2027 PEAK HOUR NB/EB VOLUME | 2027 PEAK HOUR SB/WB VOLUME | 2027 PEAK HOUR V/C | 2027 PEAK HOUR LOS |
|------------|----------------|--------------|-------------|-------------|---------------------|----------------------|-------------------------------|-------------------------------|--------------|--------------|---------------|---------------------|--------------------|------------------------------|----------------------|----------------------|-----------|----------------|----------------|--------------------------------------|-----------------------------|-----------------------------|--------------------|--------------------|-------------|-----------------------------|-----------|----------------|----------------|---|-----------------------------|-----------------------------|--------------------|--------------------|
| 2960       | 115176         | 115176       | ADJACENT    | 35          | 0.68                | SR 19 (N)            | STEVENS AVE                   | ORANGE AVENUE                 | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF EUSTIS               | D                    | 19,440               | 11,450    | 0.59           | D              | 1,960                                | 1,029                       | 0                           | 0.53               | D                  | 1.00%       | 19,440                      | 12,034    | 0.62           | D              | 1,960                                       | 1,081                       | 0                           | 0.56               | D                  |
| 2970       | 110208         | 110208       | State       | 35          | 0.62                | SR 19 (S)            | ORANGE AVENUE                 | STEVENS AVE                   | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF EUSTIS               | D                    | 19,440               | 7,430     | 0.38           | D              | 1,960                                | 0                           | 668                         | 0.34               | C                  | 1.00%       | 19,440                      | 7,809     | 0.40           | C              | 1,960                                       | 0                           | 702                         | 0.35               | C                  |
| 2980       | 115013         | 115013       | State       | 35          | 0.50                | SR 19                | STEVENS AVE                   | GOLF LINKS AVENUE             | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF EUSTIS               | D                    | 34,020               | 30,500    | 0.90           | D              | 1,710                                | 1,338                       | 1,113                       | 0.78               | D                  | 1.00%       | 34,020                      | 32,056    | 0.94           | D              | 1,710                                       | 1,406                       | 1,170                       | 0.82               | D                  |
| 2990       | 110421         | 110421       | State       | 40          | 0.92                | SR 19                | GOLF LINKS AVENUE             | US 441                        | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF EUSTIS               | D                    | 41,790               | 17,760    | 0.42           | C              | 2,100                                | 860                         | 738                         | 0.41               | C                  | 1.00%       | 41,790                      | 18,666    | 0.45           | C              | 2,100                                       | 904                         | 776                         | 0.43               | C                  |
| 3000       | 115125         | 115125       | State       | 35          | 0.24                | SR 19 (DUNCAN DRIVE) | US 441                        | CR 500A/ LAKE SHORE BOULEVARD | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF TAVARES              | D                    | 32,400               | 19,810    | 0.61           | D              | 1,630                                | 959                         | 824                         | 0.59               | D                  | 1.50%       | 32,400                      | 21,341    | 0.66           | D              | 1,630                                       | 1,033                       | 888                         | 0.63               | D                  |
| 3010       | 115125         | 115125       | ADJACENT    | 35          | 0.37                | SR 19                | CR 500A/ LAKE SHORE BOULEVARD | CR 452 (MAIN STREET)          | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF TAVARES              | D                    | 32,400               | 19,810    | 0.61           | D              | 1,630                                | 959                         | 824                         | 0.59               | D                  | 1.50%       | 32,400                      | 21,341    | 0.66           | D              | 1,630                                       | 1,033                       | 888                         | 0.63               | D                  |
| 3020       | 110049         | 110049       | State       | 45          | 1.38                | SR 19                | CR 452 (MAIN STREET)          | CR 561                        | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF TAVARES              | D                    | 41,790               | 45,500    | 1.09           | F              | 2,100                                | 2,203                       | 1,892                       | 1.05               | F                  | 4.50%       | 41,790                      | 56,701    | 1.36           | F              | 2,100                                       | 2,745                       | 2,358                       | 1.31               | F                  |
| 3030       | 110049         | 110049       | ADJACENT    | 45          | 0.90                | SR 19                | CR 561                        | LANE PARK ROAD                | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | CITY OF TAVARES              | D                    | 18,590               | 45,500    | 2.45           | F              | 920                                  | 2,203                       | 1,892                       | 2.39               | F                  | 4.50%       | 18,590                      | 56,701    | 3.05           | F              | 920   | 2,745                       | 2,358                       | 2.98               | F                  |
| 3040       | 110494         | 110494       | State       | 55          | 3.87                | SR 19                | LANE PARK ROAD                | CR 48                         | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | HOWEY-IN-THE-HILLS/TAVARES   | D                    | 18,590               | 15,980    | 0.86           | C              | 920                                  | 610                         | 656                         | 0.71               | C                  | 1.00%       | 18,590                      | 16,795    | 0.90           | C              | 920   | 641                         | 689                         | 0.75               | C                  |
| 3050       | 110495         | 110495       | State       | 40          | 0.84                | SR 19                | CR 48                         | CENTRAL AVENUE                | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | HOWEY-IN-THE-HILLS           | D                    | 14,160               | 8,950     | 0.63           | C              | 700                                  | 433                         | 372                         | 0.62               | C                  | 1.00%       | 14,160                      | 9,407     | 0.66           | C              | 700   | 455                         | 391                         | 0.65               | C                  |
| 3060       | 110495         | 110495       | ADJACENT    | 35          | 3.09                | SR 19                | CENTRAL AVENUE                | CR 455                        | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | HOWEY-IN-THE-HILLS           | D                    | 24,200               | 8,950     | 0.37           | B              | 1,200                                | 433                         | 372                         | 0.38               | B                  | 1.00%       | 24,200                      | 9,407     | 0.39           | B              | 1,200                                       | 455                         | 391                         | 0.38               | B                  |
| 3070       | 110255         | 110255       | State       | 55          | 2.72                | SR 19                | CR 455                        | US 27 / SR 25                 | 2            | 2            | RURAL         | UNDIVIDED           | STATE              | CITY OF GROVELAND            | C                    | 8,600                | 9,910     | 1.15           | D              | 450                                  | 507                         | 435                         | 1.13               | D                  | 1.00%       | 8,600                       | 10,416    | 1.21           | D              | 450   | 533                         | 457                         | 1.18               | D                  |
| 3080       | 110376         | 110376       | State       | 55          | 4.73                | SR 19                | US 27 / SR 25                 | CR 478                        | 2            | 2            | RURAL         | UNDIVIDED           | STATE              | CITY OF GROVELAND            | C                    | 8,600                | 9,350     | 1.09           | D              | 450                                  | 466                         | 519                         | 1.15               | D                  | 1.00%       | 8,600                       | 9,827     | 1.14           | D              | 450   | 490                         | 545                         | 1.21               | D                  |
| 3090       | 110376         | 110376       | ADJACENT    | 55          | 1.22                | SR 19                | CR 478                        | LAKE CATHERINE ROAD           | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | CITY OF GROVELAND            | C                    | 17,700               | 9,350     | 0.53           | C              | 880                                  | 466                         | 519                         | 0.59               | C                  | 1.00%       | 17,700                      | 9,827     | 0.56           | C              | 880   | 490                         | 545                         | 0.62               | C                  |
| 3100       | 110097         | 110097       | State       | 45          | 0.70                | SR 19                | LAKE CATHERINE ROAD           | SR 50/ SR 33                  | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | CITY OF GROVELAND            | C                    | 17,700               | 12,950    | 0.73           | C              | 880                                  | 449                         | 533                         | 0.61               | C                  | 1.50%       | 17,700                      | 13,951    | 0.79           | C              | 880   | 484                         | 574                         | 0.85               | C                  |
| 3110       | 115072         | 115072       | State       | 40          | 0.52                | SR 33                | SR 50/ SR 33                  | ANDERSON ROAD                 | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | CITY OF GROVELAND            | D                    | 18,590               | 14,760    | 0.79           | C              | 920                                  | 470                         | 667                         | 0.73               | C                  | 4.25%       | 18,590                      | 18,175    | 0.98           | D              | 920   | 579                         | 821                         | 0.89               | C                  |
| 3120       | 110497         | 110497       | State       | 60          | 3.16                | SR 33                | ANDERSON ROAD                 | CR 565B                       | 2            | 2            | RURAL         | UNDIVIDED           | STATE              | CITY OF GROVELAND            | C                    | 8,600                | 10,428    | 1.21           | D              | 450                                  | 533                         | 458                         | 1.18               | D                  | 3.75%       | 8,600                       | 12,535    | 1.46           | D              | 450   | 641                         | 551                         | 1.42               | D                  |
| 3130       | 111002         | 111002       | State       | 60          | 6.76                | SR 33                | CR 565B                       | CR 561                        | 2            | 2            | RURAL         | UNDIVIDED           | STATE              | UNINCORPORATED LAKE COUNTY   | C                    | 8,600                | 8,242     | 0.96           | C              | 450                                  | 421                         | 362                         | 0.94               | C                  | 1.75%       | 8,600                       | 8,988     | 1.05           | D              | 450   | 459                         | 395                         | 1.02               | D                  |
| 3140       | 5              |              | County      | 60          | 2.33                | SR 33                | CR 561                        | CR 474                        | 2            | 2            | RURAL         | UNDIVIDED           | STATE              | UNINCORPORATED LAKE COUNTY   | C                    | 8,600                | 13,084    | 1.52           | D              | 450                                  | 452                         | 415                         | 1.00               | D                  | 1.25%       | 8,600                       | 13,923    | 1.62           | D              | 450   | 480                         | 441                         | 1.07               | D                  |
| 3150       | 2              |              | County      | 60          | 1.04                | SR 33                | CR 474                        | POLK COUNTY LINE              | 2            | 2            | RURAL         | UNDIVIDED           | STATE              | UNINCORPORATED LAKE COUNTY   | C                    | 10,320               | 10,821    | 1.05           | D              | 540                                  | 352                         | 544                         | 1.01               | D                  | 4.50%       | 10,320                      | 13,485    | 1.31           | F              | 540   | 438                         | 678                         | 1.26               | F                  |
| 3160       | 808            |              | County      | 45          | 4.71                | SR 40                | MARION COUNTY LINE            | CR 445A                       | 2            | 2            | RURAL         | UNDIVIDED           | STATE              | UNINCORPORATED LAKE COUNTY   | C                    | 8,600                | 5,068     | 0.59           | C              | 450                                  | 169                         | 217                         | 0.48               | B                  | 2.75%       | 8,600                       | 5,805     | 0.68           | C              | 450   | 193                         | 248                         | 0.55               | C                  |
| 3170       | 110503         | 110503       | State       | 55          | 1.61                | SR 40                | CR 445A                       | RIVER ROAD                    | 2            | 2            | RURAL         | UNDIVIDED           | STATE              | UNINCORPORATED LAKE COUNTY   | C                    | 10,320               | 5,370     | 0.52           | C              | 540                                  | 274                         | 236                         | 0.51               | C                  | 1.00%       | 10,320                      | 5,644     | 0.55           | C              | 540   | 288                         | 248                         | 0.53               | C                  |
| 3180       | 110050         | 110050       | State       | 45          | 1.43                | SR 40                | RIVER ROAD                    | VOLUISA COUNTY LINE           | 2            | 2            | RURAL         | DIVIDED             | STATE              | UNINCORPORATED LAKE COUNTY   | C                    | 14,220               | 10,180    | 0.72           | C              | 740                                  | 401                         | 406                         | 0.55               | C                  | 4.75%       | 14,220                      | 12,839    | 0.90           | C              | 740   | 506                         | 512                         | 0.69               | C                  |
| 3190       | 110496         | 110496       | State       | 55          | 2.38                | SR 44                | SUMTER COUNTY LINE            | CR 468                        | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG            | D                    | 39,800               | 21,800    | 0.55           | C              | 2,000                                | 1,071                       | 964                         | 0.54               | C                  | 1.00%       | 39,800                      | 22,912    | 0.58           | C              | 2,000                                       | 1,126                       | 1,013                       | 0.56               | C                  |
| 3200       | 110487         | 110487       | State       | 45          | 1.54                | SR 44                | CR 468                        | S LONE OAK DRIVE              | 4            | 4            | URBAN         | DIVIDED             | STATE              | UNINCORPORATED LAKE COUNTY   | D                    | 39,800               | 16,540    | 0.42           | C              | 2,000                                | 610                         | 720                         | 0.38               | C                  | 1.00%       | 39,800                      | 17,384    | 0.44           | C              | 2,000                                       | 641                         | 757                         | 0.38               | C                  |
| 3210       | 115147         | 115147       | State       | 35          | 0.76                | SR 44                | S LONE OAK DRIVE              | US 27                         | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG            | D                    | 32,400               | 19,480    | 0.60           | D              | 1,630                                | 835                         | 769                         | 0.51               | D                  | 1.00%       | 32,400                      | 20,474    | 0.63           | D              | 1,630                                       | 878                         | 808                         | 0.54               | D                  |
| 3220       | 115179         | 115179       | State       | 35          | 0.57                | SR 44 (DIXIE AVENUE) | US 27                         | S 9TH STREET                  | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG            | D                    | 32,400               | 27,300    | 0.84           | D              | 1,630                                | 1,322                       | 1,135                       | 0.81               | D                  | 1.25%       | 32,400                      | 29,049    | 0.90           | D              | 1,630                                       | 1,407                       | 1,208                       | 0.86               | D                  |
| 3230       | 115143         | 115143       | ADJACENT    | 35          | 0.34                | SR 44 (DIXIE AVENUE) | S 9TH STREET                  | CANAL STREET                  | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG            | D                    | 32,400               | 23,200    | 0.72           | D              | 1,630                                | 922                         | 928                         | 0.57               | D                  | 1.00%       | 32,400                      | 24,383    | 0.75           | D              | 1,630                                       | 969                         | 975                         | 0.60               | D                  |
| 3240       | 115143         | 115143       | State       | 40          | 0.41                | SR 44 (DIXIE AVENUE) | CANAL STREET                  | S LAKE STREET                 | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG            | D                    | 39,800               | 23,200    | 0.58           | C              | 2,000                                | 922                         | 928                         | 0.48               | C                  | 1.00%       | 39,800                      | 24,383    | 0.61           | C              | 2,000                                       | 969                         | 975                         | 0.49               | C                  |
| 3250       | 115142         | 115142       | State       | 40          | 0.79                | SR 44 (DIXIE AVENUE) | S LAKE STREET                 | E MAIN STREET                 | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG            | D                    | 39,800               | 18,760    | 0.47           | C              | 2,000                                | 908                         | 780                         | 0.45               | C                  | 1.00%       | 39,800                      | 19,717    | 0.50           | C              | 2,000                                       | 954                         | 820                         | 0.48               | C                  |
| 3260       | 115183         | 115183       | State       | 40          | 0.11                | SR 44 (DIXIE AVENUE) | E MAIN STREET                 | US 441                        | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG            | D                    | 41,790               | 18,760    | 0.45           | C              | 2,100                                | 908                         | 780                         | 0.43               | C                  | 1.00%       | 41,790                      | 19,717    | 0.47           | C              | 2,100                                       | 954                         | 820                         | 0.45               | C                  |
| 3262       | 110005         | 110005       | State       | 45          | 0.45                | SR 44 (OLD C.R. 44B) | US 441                        | WAYCROSS AVENUE               | 2            | 2            | URBAN         | DIVIDED             | STATE              | CITY OF MOUNT DORA           | D                    | 19,510               | 25,500    | 1.31           | F              | 970                                  | 1,235                       | 1,060                       | 1.27               | F                  | 1.00%       | 19,510                      | 26,801    | 1.37           | F              | 970   | 1,298                       | 1,114                       | 1.34               | F                  |
| 3268       | 110006         | 110006       | State       | 45          | 1.65                | SR 44 (OLD C.R. 44B) | WAYCROSS AVENUE               | ORANGE AVENUE                 | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | EUSTISMOUNT DORA             | D                    | 18,590               | 17,880    | 0.96           | D              | 920                                  | 907                         | 637                         | 0.99               | D                  | 1.00%       | 18,590                      | 18,792    | 1.01           | F              | 920   | 953                         | 669                         | 1.04               | F                  |
| 3270       | 110500         | 110500       | ADJACENT    | 55          | 2.27                | SR 44                | ABRAMS AVENUE                 | THRILL HILL ROAD              | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | CITY OF EUSTIS               | D                    | 18,590               | 13,810    | 0.74           | C              | 920                                  | 706                         | 606                         | 0.77               | C                  | 1.00%       | 18,590                      | 14,514    | 0.78           | C              | 920   | 742                         | 637                         | 0.81               | C                  |
| 3280       | 110500         | 110500       | ADJACENT    | 55          | 1.14                | SR 44                | THRILL HILL ROAD              | CR 439                        | 2            | 2            | URBAN         | UNDIVIDED           | STATE              | CITY OF MOUNT DORA           | D                    | 17,700               | 13,810    | 0.78           | C              | 880                                  | 706                         | 606                         | 0.80               | C                  | 1.00%       | 17,700                      | 14,514    | 0.82           | C              | 880   | 742                         | 637                         | 0.84               | C                  |
| 3290       | 110500         | 110500       | State       | 55          | 3.03                | SR 44                | CR 439                        | CR 437                        | 2            | 2            | RURAL         | UNDIVIDED           | STATE              | UNINCORPORATED LAKE COUNTY</ |                      |                      |           |                |                |                                      |                             |                             |                    |                    |             |                             |           |                |                |   |                             |                             |                    |                    |

Lake County CMP Database

| SEGMENT ID | COUNTY STATION | FDOT STATION | DATA SOURCE | SPEED LIMIT | SEGMENT LENGTH (MI) | ROAD NAME                | FROM                            | TO                              | LANES (2022) | LANES (2027) | URBAN / RURAL | DIVIDED / UNDIVIDED | MAINTAINING AGENCY | JURISDICTION               | ADOPTED LOS STANDARD | DAILY SERVICE VOLUME | 2022 AADT | 2022 DAILY V/C | 2022 DAILY LOS | PEAK HOUR DIRECTIONAL SERVICE VOLUME | 2022 PEAK HOUR NB/EB VOLUME | 2022 PEAK HOUR SB/WB VOLUME | 2022 PEAK HOUR V/C | 2022 PEAK HOUR LOS | GROWTH RATE | DAILY SERVICE VOLUME (2027) | 2027 AADT | 2027 DAILY V/C | 2027 DAILY LOS | PEAK HOUR DIRECTIONAL SERVICE VOLUME (2027) | 2027 PEAK HOUR NB/EB VOLUME | 2027 PEAK HOUR SB/WB VOLUME | 2027 PEAK HOUR V/C | 2027 PEAK HOUR LOS |
|------------|----------------|--------------|-------------|-------------|---------------------|--------------------------|---------------------------------|---------------------------------|--------------|--------------|---------------|---------------------|--------------------|----------------------------|----------------------|----------------------|-----------|----------------|----------------|--------------------------------------|-----------------------------|-----------------------------|--------------------|--------------------|-------------|-----------------------------|-----------|----------------|----------------|---|-----------------------------|-----------------------------|--------------------|--------------------|
| 3927       | 110007         | 110007       | ADJACENT    | 65          | 2.01                | US 27/SR 25              | BOGGY MARSH RD                  | CR 474                          | 6            | 6            | URBAN         | DIVIDED             | STATE              | UNINCORPORATED LAKE COUNTY | D                    | 62,900               | 21,400    | 0.34           | C              | 3,170                                | 1,094                       | 939                         | 0.35               | C                  | 1.00%       | 62,900                      | 22,492    | 0.36           | C              | 3,170                                       | 1,150                       | 987                         | 0.36               | C                  |
| 3930       | 1              |              | County      | 55          | 1.72                | US 27/SR 25              | CR 474                          | US 192                          | 6            | 6            | URBAN         | DIVIDED             | STATE              | UNINCORPORATED LAKE COUNTY | D                    | 62,900               | 55,383    | 0.88           | C              | 3,170                                | 1,945                       | 1,878                       | 0.61               | C                  | 1.00%       | 62,900                      | 58,208    | 0.93           | C              | 3,170                                       | 2,045                       | 1,974                       | 0.65               | C                  |
| 3940       | 115096         | 115096       | State       | 35          | 0.75                | US 441/ SR 500           | US 27/US441 SPLIT               | LEE STREET                      | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG          | D                    | 34,020               | 29,150    | 0.86           | D              | 1,710                                | 1,411                       | 1,212                       | 0.83               | D                  | 1.00%       | 34,020                      | 30,637    | 0.90           | D              | 1,710                                       | 1,483                       | 1,274                       | 0.87               | D                  |
| 3950       | 110492         | 110492       | State       | 35          | 0.42                | US 441/ SR 500           | LEE STREET                      | N CANAL STREET                  | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG          | D                    | 32,400               | 31,850    | 0.98           | D              | 1,630                                | 1,542                       | 1,324                       | 0.95               | D                  | 1.00%       | 32,400                      | 33,475    | 1.03           | E              | 1,630                                       | 1,621                       | 1,392                       | 0.99               | D                  |
| 3960       | 115093         | 115093       | State       | 45          | 1.06                | US 441/ SR 500           | N CANAL STREET                  | E DIXIE AVENUE                  | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG          | D                    | 41,790               | 33,850    | 0.81           | C              | 2,100                                | 1,386                       | 1,158                       | 0.66               | C                  | 1.00%       | 41,790                      | 35,577    | 0.85           | C              | 2,100                                       | 1,457                       | 1,217                       | 0.69               | C                  |
| 3970       | 115092         | 115092       | State       | 45          | 0.25                | US 441/ SR 500           | E DIXIE AVENUE                  | E MAIN STREET                   | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG          | D                    | 59,900               | 44,550    | 0.74           | C              | 3,020                                | 2,157                       | 1,852                       | 0.71               | C                  | 1.00%       | 59,900                      | 46,822    | 0.78           | C              | 3,020                                       | 2,267                       | 1,946                       | 0.75               | C                  |
| 3980       | 110177         | 110177       | State       | 45          | 1.41                | US 441/ SR 500           | E MAIN STREET                   | CR 44                           | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG          | D                    | 59,900               | 34,100    | 0.57           | C              | 3,020                                | 1,654                       | 1,415                       | 0.55               | C                  | 1.00%       | 59,900                      | 35,839    | 0.60           | C              | 3,020                                       | 1,738                       | 1,487                       | 0.58               | C                  |
| 3990       | 110177         | 110177       | ADJACENT    | 45          | 3.07                | US 441/ SR 500           | CR 44                           | RADIO ROAD                      | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG          | D                    | 62,900               | 34,100    | 0.54           | C              | 3,170                                | 1,654                       | 1,415                       | 0.52               | C                  | 1.00%       | 62,900                      | 35,839    | 0.57           | C              | 3,170                                       | 1,738                       | 1,487                       | 0.55               | C                  |
| 4000       | 110128         | 110128       | ADJACENT    | 45          | 0.88                | US 441/ SR 500           | RADIO ROAD                      | CR 473                          | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF LEEBSBURG          | D                    | 62,900               | 46,850    | 0.74           | C              | 3,170                                | 2,268                       | 1,948                       | 0.72               | C                  | 1.00%       | 62,900                      | 49,240    | 0.78           | C              | 3,170                                       | 2,384                       | 2,047                       | 0.75               | C                  |
| 4010       | 110128         | 110128       | State       | 50          | 2.33                | US 441/ SR 500           | CR 473                          | OLD US 441/ CR 500A             | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF TAVARES            | D                    | 62,900               | 46,850    | 0.74           | C              | 3,170                                | 2,268                       | 1,948                       | 0.72               | C                  | 1.00%       | 62,900                      | 49,240    | 0.78           | C              | 3,170                                       | 2,384                       | 2,047                       | 0.75               | C                  |
| 4020       | 110504         | 110504       | State       | 45          | 0.20                | US 441/ SR 500           | OLD US 441/ CR 500A             | SR 19 / DUNCAN DRIVE            | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF TAVARES            | D                    | 59,900               | 25,900    | 0.43           | C              | 3,020                                | 1,254                       | 1,077                       | 0.42               | C                  | 1.00%       | 59,900                      | 27,221    | 0.45           | C              | 3,020                                       | 1,318                       | 1,132                       | 0.44               | C                  |
| 4030       | 110414         | 110414       | State       | 45          | 0.62                | US 441/ SR 500           | SR 19 / DUNCAN DRIVE            | CR 452 / ST CLAIR ABRAMS AVENUE | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF TAVARES            | D                    | 59,900               | 58,900    | 0.98           | D              | 3,020                                | 2,852                       | 2,449                       | 0.94               | C                  | 1.00%       | 59,900                      | 61,904    | 1.03           | F              | 3,020                                       | 2,997                       | 2,574                       | 0.99               | D                  |
| 4040       | 110414         | 110414       | ADJACENT    | 45          | 0.39                | US 441/ SR 500           | CR 452 / ST CLAIR ABRAMS AVENUE | CR 452 / LAKE EUSTIS DRIVE      | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF TAVARES            | D                    | 62,900               | 58,900    | 0.94           | C              | 3,170                                | 2,852                       | 2,449                       | 0.90               | C                  | 1.00%       | 62,900                      | 61,904    | 0.98           | D              | 3,170                                       | 2,997                       | 2,574                       | 0.95               | C                  |
| 4050       | 110414         | 110414       | ADJACENT    | 50          | 1.22                | US 441/ SR 500           | CR 452 / LAKE EUSTIS DRIVE      | DAVID WALKER DRIVE              | 6            | 6            | URBAN         | DIVIDED             | STATE              | EUSTIS/TAVARES             | D                    | 62,900               | 58,900    | 0.94           | C              | 3,170                                | 2,852                       | 2,449                       | 0.90               | C                  | 1.00%       | 62,900                      | 61,904    | 0.98           | D              | 3,170                                       | 2,997                       | 2,574                       | 0.95               | C                  |
| 4060       | 110414         | 110414       | ADJACENT    | 45          | 1.02                | US 441/ SR 500           | DAVID WALKER DRIVE              | SR 19/ BAY STREET               | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF EUSTIS             | D                    | 62,900               | 58,900    | 0.94           | C              | 3,170                                | 2,852                       | 2,449                       | 0.90               | C                  | 1.00%       | 62,900                      | 61,904    | 0.98           | D              | 3,170                                       | 2,997                       | 2,574                       | 0.95               | C                  |
| 4070       | 110475         | 110475       | ADJACENT    | 50          | 1.36                | US 441/ SR 500           | SR 19/ BAY STREET               | OLD MT DORA ROAD                | 6            | 6            | URBAN         | DIVIDED             | STATE              | EUSTIS/MOUNT DORA          | D                    | 62,900               | 49,300    | 0.78           | C              | 3,170                                | 2,387                       | 2,050                       | 0.75               | C                  | 1.00%       | 62,900                      | 51,815    | 0.82           | C              | 3,170                                       | 2,509                       | 2,155                       | 0.79               | C                  |
| 4080       | 110475         | 110475       | State       | 50          | 1.22                | US 441/ SR 500           | OLD MT DORA ROAD                | DONNELLY STREET/SR 44           | 6            | 6            | URBAN         | DIVIDED             | STATE              | CITY OF MOUNT DORA         | D                    | 62,900               | 49,300    | 0.78           | C              | 3,170                                | 2,387                       | 2,050                       | 0.75               | C                  | 1.00%       | 62,900                      | 51,815    | 0.82           | C              | 3,170                                       | 2,509                       | 2,155                       | 0.79               | C                  |
| 4090       | 110499         | 110499       | State       | 55          | 1.19                | US 441/ SR 500           | DONNELLY STREET/SR 44           | WOLF BRANCH ROAD                | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF MOUNT DORA         | D                    | 41,790               | 26,150    | 0.63           | C              | 2,100                                | 1,324                       | 1,332                       | 0.63               | C                  | 1.00%       | 41,790                      | 27,484    | 0.66           | C              | 2,100                                       | 1,392                       | 1,400                       | 0.67               | C                  |
| 4100       | 110002         | 110002       | State       | 55          | 1.31                | US 441/ SR 500           | WOLF BRANCH ROAD                | SR 46                           | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF MOUNT DORA         | D                    | 41,790               | 23,800    | 0.57           | C              | 2,100                                | 990                         | 1,152                       | 0.55               | C                  | 1.00%       | 41,790                      | 25,014    | 0.60           | C              | 2,100                                       | 1,040                       | 1,211                       | 0.58               | C                  |
| 4110       | 750642         | 750642       | State       | 55          | 0.74                | US 441/ SR 500           | SR 46                           | ORANGE COUNTY LINE              | 4            | 4            | URBAN         | DIVIDED             | STATE              | CITY OF MOUNT DORA         | D                    | 41,790               | 25,500    | 0.61           | C              | 2,100                                | 1,056                       | 916                         | 0.50               | C                  | 1.00%       | 41,790                      | 26,801    | 0.64           | C              | 2,100                                       | 1,110                       | 963                         | 0.53               | C                  |
| 4120       | 12             |              | County      | 25          | 0.83                | VISTA DEL LAGO BOULEVARD | LAKE LOUISA ROAD                | US 27                           | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | D                    | 13,320               | 1,527     | 0.11           | C              | 680                                  | 83                          | 70                          | 0.12               | C                  | 1.00%       | 13,320                      | 1,605     | 0.12           | C              | 680   | 87                          | 73                          | 0.13               | C                  |
| 4130       | 481            |              | County      | 30          | 0.88                | WASHINGTON AVENUE        | HASELTON STREET                 | ABRAMS ROAD                     | 2            | 2            | URBAN         | UNDIVIDED           | CITY OF EUSTIS     | CITY OF EUSTIS             | D                    | 14,060               | 1,980     | 0.14           | C              | 710                                  | 82                          | 123                         | 0.17               | C                  | 1.00%       | 14,060                      | 2,081     | 0.15           | C              | 710   | 86                          | 129                         | 0.18               | C                  |
| 4140       | 618            |              | County      | 35          | 0.99                | WAYCROSS AVENUE          | COUNTY CLUB ROAD                | SR 44 (OLD C.R. 44B)            | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF EUSTIS             | D                    | 14,060               | 6,069     | 0.43           | C              | 710                                  | 219                         | 403                         | 0.57               | D                  | 2.75%       | 14,060                      | 6,951     | 0.49           | D              | 710   | 250                         | 461                         | 0.65               | D                  |
| 4150       | 405            |              | County      | 25          | 0.52                | WELLS AVENUE             | SR 19                           | LAKE AVENUE                     | 2            | 2            | URBAN         | UNDIVIDED           | CITY OF TAVARES    | CITY OF TAVARES            | D                    | 10,360               | 1,767     | 0.17           | C              | 530                                  | 41                          | 127                         | 0.24               | C                  | 1.00%       | 10,360                      | 1,857     | 0.18           | C              | 530   | 44                          | 134                         | 0.25               | C                  |
| 4160       | 615            |              | County      | 45          | 1.16                | WOLF BRANCH ROAD         | US 441                          | BRITT ROAD                      | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF MOUNT DORA         | D                    | 16,820               | 13,105    | 0.78           | C              | 840                                  | 515                         | 679                         | 0.81               | C                  | 1.00%       | 16,820                      | 13,774    | 0.82           | C              | 840   | 542                         | 714                         | 0.85               | C                  |
| 4170       | 614            |              | County      | 45          | 3.52                | WOLF BRANCH ROAD         | BRITT ROAD                      | CR 437                          | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF MOUNT DORA         | D                    | 16,820               | 6,046     | 0.36           | C              | 840                                  | 305                         | 222                         | 0.36               | C                  | 1.00%       | 16,820                      | 6,355     | 0.38           | C              | 840   | 320                         | 233                         | 0.38               | C                  |
| 4180       | 402            | 117015       | County      | 35          | 1.71                | WOODLEA ROAD             | LANE PARK ROAD                  | SR 19                           | 2            | 2            | URBAN         | UNDIVIDED           | COUNTY             | CITY OF TAVARES            | D                    | 14,060               | 3,541     | 0.25           | C              | 710                                  | 197                         | 104                         | 0.28               | C                  | 2.00%       | 14,060                      | 3,910     | 0.28           | C              | 710   | 217                         | 114                         | 0.31               | C                  |
| 4190       | 244            |              | County      | 45          | 2.14                | YOUTH CAMP ROAD          | SUMTER COUNTY LINE              | AUSTIN MERRITT ROAD             | 2            | 2            | RURAL         | UNDIVIDED           | COUNTY             | UNINCORPORATED LAKE COUNTY | C                    | 7,740                | 1,178     | 0.15           | B              | 410                                  | -                           | -                           | -                  | -                  | 1.00%       | 7,740                       | 1,238     | 0.16           | B              | 410   | -                           | -                           | -                  | -                  |

**Appendix D**  
Year 2030 Project Trip Development

Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition

| LUC 210 |       | 100% |            | 100%  |      |
|---------|-------|------|------------|-------|------|
| Time    | Enter | Exit | % of Daily | Enter | Exit |
| 0:00    | 0.2%  | 0.2% | 0.1%       | 0.1%  | 0.2% |
| 1:00    | 0.1%  | 0.1% | 0.2%       | 0.1%  | 0.1% |
| 2:00    | 0.3%  | 0.2% | 0.2%       | 0.3%  | 0.2% |
| 3:00    | 0.4%  | 0.3% | 0.3%       | 0.4%  | 0.3% |
| 4:00    | 0.8%  | 0.5% | 0.4%       | 0.8%  | 0.5% |
| 5:00    | 2.9%  | 1.6% | 0.5%       | 2.9%  | 1.6% |
| 6:00    | 8.5%  | 3.1% | 1.0%       | 8.5%  | 3.1% |
| 7:00    | 13.2% | 3.8% | 1.3%       | 13.2% | 3.8% |
| 8:00    | 9.3%  | 3.3% | 1.0%       | 9.3%  | 3.3% |
| 9:00    | 6.9%  | 3.3% | 0.9%       | 6.9%  | 3.3% |
| 10:00   | 4.3%  | 5.6% | 0.7%       | 4.3%  | 5.6% |
| 11:00   | 5.7%  | 5.1% | 0.8%       | 5.7%  | 5.1% |
| 12:00   | 5.7%  | 5.7% | 0.8%       | 5.7%  | 5.7% |
| 13:00   | 4.8%  | 6.0% | 0.7%       | 4.8%  | 6.0% |
| 14:00   | 6.0%  | 6.1% | 0.8%       | 6.0%  | 6.1% |
| 15:00   | 4.8%  | 6.2% | 0.7%       | 4.8%  | 6.2% |
| 16:00   | 5.1%  | 7.4% | 0.8%       | 5.1%  | 7.4% |
| 17:00   | 6.8%  | 7.3% | 0.9%       | 6.8%  | 7.3% |
| 18:00   | 6.6%  | 5.9% | 0.8%       | 6.6%  | 5.9% |
| 19:00   | 4.5%  | 4.2% | 0.6%       | 4.5%  | 4.2% |
| 20:00   | 3.5%  | 3.1% | 0.5%       | 3.5%  | 3.1% |
| 21:00   | 1.3%  | 2.3% | 0.2%       | 1.3%  | 2.3% |
| 22:00   | 1.1%  | 1.9% | 0.2%       | 1.1%  | 1.9% |
| 23:00   | 0.4%  | 0.6% | 0.1%       | 0.4%  | 0.6% |

Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition

| LUC 215 |       | 100% |            | 100%  |      |
|---------|-------|------|------------|-------|------|
| Time    | Enter | Exit | % of Daily | Enter | Exit |
| 0:00    | 0.3%  | 0.7% | 0.1%       | 0.3%  | 0.7% |
| 1:00    | 0.1%  | 0.4% | 0.0%       | 0.1%  | 0.4% |
| 2:00    | 0.4%  | 0.3% | 0.2%       | 0.4%  | 0.3% |
| 3:00    | 0.4%  | 0.3% | 0.3%       | 0.4%  | 0.3% |
| 4:00    | 1.0%  | 0.7% | 0.3%       | 1.0%  | 0.7% |
| 5:00    | 2.6%  | 1.4% | 0.5%       | 2.6%  | 1.4% |
| 6:00    | 5.8%  | 2.6% | 0.8%       | 5.8%  | 2.6% |
| 7:00    | 13.2% | 3.9% | 1.3%       | 13.2% | 3.9% |
| 8:00    | 9.3%  | 3.7% | 1.0%       | 9.3%  | 3.7% |
| 9:00    | 6.9%  | 4.3% | 0.9%       | 6.9%  | 4.3% |
| 10:00   | 4.3%  | 4.0% | 0.7%       | 4.3%  | 4.0% |
| 11:00   | 5.7%  | 6.0% | 0.8%       | 5.7%  | 6.0% |
| 12:00   | 5.1%  | 6.1% | 0.7%       | 5.1%  | 6.1% |
| 13:00   | 4.8%  | 5.2% | 0.7%       | 4.8%  | 5.2% |
| 14:00   | 6.0%  | 4.3% | 0.8%       | 6.0%  | 4.3% |
| 15:00   | 4.8%  | 4.3% | 0.7%       | 4.8%  | 4.3% |
| 16:00   | 5.1%  | 4.1% | 0.7%       | 5.1%  | 4.1% |
| 17:00   | 6.8%  | 5.0% | 0.9%       | 6.8%  | 5.0% |
| 18:00   | 6.6%  | 6.5% | 0.8%       | 6.6%  | 6.5% |
| 19:00   | 4.5%  | 3.9% | 0.6%       | 4.5%  | 3.9% |
| 20:00   | 3.5%  | 3.3% | 0.5%       | 3.5%  | 3.3% |
| 21:00   | 1.3%  | 2.3% | 0.2%       | 1.3%  | 2.3% |
| 22:00   | 1.1%  | 1.8% | 0.2%       | 1.1%  | 1.8% |
| 23:00   | 0.4%  | 1.4% | 0.1%       | 0.4%  | 1.4% |

Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition

| LUC 230 |       | 100% |            | 100%  |      |
|---------|-------|------|------------|-------|------|
| Time    | Enter | Exit | % of Daily | Enter | Exit |
| 0:00    | 0.7%  | 0.7% | 0.1%       | 0.7%  | 0.7% |
| 1:00    | 0.0%  | 0.3% | 0.0%       | 0.0%  | 0.3% |
| 2:00    | 0.3%  | 0.3% | 0.0%       | 0.3%  | 0.3% |
| 3:00    | 0.1%  | 0.3% | 0.0%       | 0.1%  | 0.3% |
| 4:00    | 0.7%  | 1.0% | 0.1%       | 0.7%  | 1.0% |
| 5:00    | 1.4%  | 1.4% | 0.2%       | 1.4%  | 1.4% |
| 6:00    | 2.6%  | 2.2% | 0.3%       | 2.6%  | 2.2% |
| 7:00    | 11.2% | 3.7% | 1.2%       | 11.2% | 3.7% |
| 8:00    | 8.0%  | 4.0% | 0.9%       | 8.0%  | 4.0% |
| 9:00    | 6.7%  | 4.4% | 0.8%       | 6.7%  | 4.4% |
| 10:00   | 6.0%  | 6.0% | 0.8%       | 6.0%  | 6.0% |
| 11:00   | 6.4%  | 5.7% | 0.8%       | 6.4%  | 5.7% |
| 12:00   | 5.7%  | 5.7% | 0.7%       | 5.7%  | 5.7% |
| 13:00   | 4.9%  | 4.9% | 0.6%       | 4.9%  | 4.9% |
| 14:00   | 5.2%  | 4.9% | 0.6%       | 5.2%  | 4.9% |
| 15:00   | 4.3%  | 4.1% | 0.5%       | 4.3%  | 4.1% |
| 16:00   | 5.4%  | 4.1% | 0.6%       | 5.4%  | 4.1% |
| 17:00   | 12.7% | 5.0% | 1.2%       | 12.7% | 5.0% |
| 18:00   | 12.4% | 6.5% | 1.2%       | 12.4% | 6.5% |
| 19:00   | 9.8%  | 3.9% | 0.9%       | 9.8%  | 3.9% |
| 20:00   | 5.7%  | 3.3% | 0.5%       | 5.7%  | 3.3% |
| 21:00   | 2.4%  | 4.1% | 0.3%       | 2.4%  | 4.1% |
| 22:00   | 1.8%  | 1.8% | 0.2%       | 1.8%  | 1.8% |
| 23:00   | 1.5%  | 1.4% | 0.2%       | 1.5%  | 1.4% |

Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition

| LUC 710 |       | 100%  |            | 100%  |       |
|---------|-------|-------|------------|-------|-------|
| Time    | Enter | Exit  | % of Daily | Enter | Exit  |
| 0:00    | 0.2%  | 0.1%  | 0.0%       | 0.2%  | 0.1%  |
| 1:00    | 0.0%  | 0.0%  | 0.0%       | 0.0%  | 0.0%  |
| 2:00    | 0.0%  | 0.0%  | 0.0%       | 0.0%  | 0.0%  |
| 3:00    | 0.0%  | 0.1%  | 0.0%       | 0.0%  | 0.1%  |
| 4:00    | 0.2%  | 0.1%  | 0.0%       | 0.2%  | 0.1%  |
| 5:00    | 0.4%  | 0.1%  | 0.1%       | 0.4%  | 0.1%  |
| 6:00    | 4.8%  | 0.5%  | 0.5%       | 4.8%  | 0.5%  |
| 7:00    | 13.6% | 2.2%  | 1.3%       | 13.6% | 2.2%  |
| 8:00    | 14.3% | 3.4%  | 1.4%       | 14.3% | 3.4%  |
| 9:00    | 6.3%  | 4.4%  | 0.8%       | 6.3%  | 4.4%  |
| 10:00   | 5.5%  | 6.0%  | 0.7%       | 5.5%  | 6.0%  |
| 11:00   | 10.3% | 10.3% | 1.0%       | 10.3% | 10.3% |
| 12:00   | 10.2% | 10.1% | 0.9%       | 10.2% | 10.1% |
| 13:00   | 9.0%  | 6.5%  | 0.8%       | 9.0%  | 6.5%  |
| 14:00   | 8.3%  | 6.5%  | 0.7%       | 8.3%  | 6.5%  |
| 15:00   | 7.3%  | 8.4%  | 0.7%       | 7.3%  | 8.4%  |
| 16:00   | 5.4%  | 15.2% | 0.5%       | 5.4%  | 15.2% |
| 17:00   | 4.0%  | 15.8% | 0.4%       | 4.0%  | 15.8% |
| 18:00   | 1.7%  | 2.6%  | 0.1%       | 1.7%  | 2.6%  |
| 19:00   | 0.9%  | 2.3%  | 0.0%       | 0.9%  | 2.3%  |
| 20:00   | 0.7%  | 1.3%  | 0.0%       | 0.7%  | 1.3%  |
| 21:00   | 0.5%  | 1.6%  | 0.0%       | 0.5%  | 1.6%  |
| 22:00   | 0.3%  | 2.1%  | 0.0%       | 0.3%  | 2.1%  |
| 23:00   | 0.4%  | 0.2%  | 0.0%       | 0.4%  | 0.2%  |

Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition

| LUC 820 |       | 100% |            | 100%  |      |
|---------|-------|------|------------|-------|------|
| Time    | Enter | Exit | % of Daily | Enter | Exit |
| 0:00    | 0.1%  | 0.1% | 0.0%       | 0.1%  | 0.1% |
| 1:00    | 0.0%  | 0.0% | 0.0%       | 0.0%  | 0.0% |
| 2:00    | 0.0%  | 0.0% | 0.0%       | 0.0%  | 0.0% |
| 3:00    | 0.0%  | 0.0% | 0.0%       | 0.0%  | 0.0% |
| 4:00    | 0.1%  | 0.0% | 0.0%       | 0.1%  | 0.0% |
| 5:00    | 0.1%  | 0.1% | 0.0%       | 0.1%  | 0.1% |
| 6:00    | 0.5%  | 0.5% | 0.0%       | 0.5%  | 0.5% |
| 7:00    | 1.9%  | 1.2% | 0.2%       | 1.9%  | 1.2% |
| 8:00    | 2.9%  | 1.8% | 0.3%       | 2.9%  | 1.8% |
| 9:00    | 4.9%  | 3.2% | 0.5%       | 4.9%  | 3.2% |
| 10:00   | 7.0%  | 5.3% | 0.7%       | 7.0%  | 5.3% |
| 11:00   | 7.3%  | 7.3% | 0.8%       | 7.3%  | 7.3% |
| 12:00   | 9.6%  | 8.9% | 0.9%       | 9.6%  | 8.9% |
| 13:00   | 8.7%  | 9.0% | 0.8%       | 8.7%  | 9.0% |
| 14:00   | 7.8%  | 8.6% | 0.7%       | 7.8%  | 8.6% |
| 15:00   | 8.1%  | 8.5% | 0.7%       | 8.1%  | 8.5% |
| 16:00   | 8.6%  | 8.7% | 0.7%       | 8.6%  | 8.7% |
| 17:00   | 8.7%  | 8.9% | 0.7%       | 8.7%  | 8.9% |
| 18:00   | 7.7%  | 7.8% | 0.6%       | 7.7%  | 7.8% |
| 19:00   | 6.5%  | 7.0% | 0.5%       | 6.5%  | 7.0% |
| 20:00   | 4.3%  | 6.3% | 0.4%       | 4.3%  | 6.3% |
| 21:00   | 1.9%  | 4.6% | 0.2%       | 1.9%  | 4.6% |
| 22:00   | 0.8%  | 1.2% | 0.0%       | 0.8%  | 1.2% |
| 23:00   | 0.3%  | 0.7% | 0.0%       | 0.3%  | 0.7% |

| Combined |       | 100% |            | 100%  |      |
|----------|-------|------|------------|-------|------|
| Time     | Enter | Exit | % of Daily | Enter | Exit |
| 0:00     | 0.4%  | 0.2% | 0.0%       | 0.4%  | 0.2% |
| 1:00     | 0.2%  | 0.1% | 0.0%       | 0.2%  | 0.1% |
| 2:00     | 0.2%  | 0.2% | 0.0%       | 0.2%  | 0.2% |
| 3:00     | 0.3%  | 0.2% | 0.0%       | 0.3%  | 0.2% |
| 4:00     | 0.3%  | 0.6% | 0.0%       | 0.3%  | 0.6% |
| 5:00     | 1.4%  | 1.4% | 0.1%       | 1.4%  | 1.4% |
| 6:00     | 3.6%  | 3.6% | 0.3%       | 3.6%  | 3.6% |
| 7:00     | 8.0%  | 8.0% | 0.6%       | 8.0%  | 8.0% |
| 8:00     | 6.4%  | 6.4% | 0.5%       | 6.4%  | 6.4% |
| 9:00     | 5.4%  | 4.8% | 0.4%       | 5.4%  | 4.8% |
| 10:00    | 6.9%  | 4.6% | 0.5%       | 6.9%  | 4.6% |
| 11:00    | 6.9%  | 6.9% | 0.5%       | 6.9%  | 6.9% |
| 12:00    | 7.4%  | 7.0% | 0.6%       | 7.4%  | 7.0% |
| 13:00    | 6.3%  | 6.3% | 0.5%       | 6.3%  | 6.3% |
| 14:00    | 6.8%  | 6.8% | 0.5%       | 6.8%  | 6.8% |
| 15:00    | 6.4%  | 6.4% | 0.5%       | 6.4%  | 6.4% |
| 16:00    | 7.7%  | 7.7% | 0.6%       | 7.7%  | 7.7% |
| 17:00    | 8.7%  | 8.7% | 0.7%       | 8.7%  | 8.7% |
| 18:00    | 6.3%  | 6.3% | 0.5%       | 6.3%  | 6.3% |
| 19:00    | 4.8%  | 4.8% | 0.4%       | 4.8%  | 4.8% |
| 20:00    | 3.9%  | 3.9% | 0.3%       | 3.9%  | 3.9% |
| 21:00    | 2.5%  | 2.5% | 0.2%       | 2.5%  | 2.5% |
| 22:00    | 1.3%  | 1.3% | 0.1%       | 1.3%  | 1.3% |
| 23:00    | 0.5%  | 0.5% | 0.0%       | 0.5%  | 0.5% |

Richland Mt. Dora North - ITE Temporal Hourly Distributions by Land Use Type

**Richland Mt. Dora North - Hourly Distribution Percentages  
Combines Temporal Hourly Distributions and Spatial Distributions**

| Begin Time   | Wolf Branch Rd |           | Project Access A |           |
|--------------|----------------|-----------|------------------|-----------|
|              | EB             | WB        | NB               |           |
|              | Right          | Left      | Left             | Right     |
| 0:00         | 0.02%          | 0.02%     | 0.01%            | 0.01%     |
| 1:00         | 0.01%          | 0.01%     | 0.00%            | 0.00%     |
| 2:00         | 0.01%          | 0.01%     | 0.01%            | 0.01%     |
| 3:00         | 0.01%          | 0.01%     | 0.01%            | 0.01%     |
| 4:00         | 0.01%          | 0.01%     | 0.03%            | 0.03%     |
| 5:00         | 0.01%          | 0.01%     | 0.07%            | 0.07%     |
| 6:00         | 0.08%          | 0.08%     | 0.18%            | 0.18%     |
| 7:00         | 0.21%          | 0.21%     | 0.40%            | 0.40%     |
| 8:00         | 0.26%          | 0.26%     | 0.32%            | 0.32%     |
| 9:00         | 0.22%          | 0.22%     | 0.27%            | 0.27%     |
| 10:00        | 0.25%          | 0.25%     | 0.24%            | 0.24%     |
| 11:00        | 0.31%          | 0.31%     | 0.34%            | 0.34%     |
| 12:00        | 0.37%          | 0.37%     | 0.35%            | 0.35%     |
| 13:00        | 0.32%          | 0.32%     | 0.31%            | 0.31%     |
| 14:00        | 0.33%          | 0.33%     | 0.34%            | 0.34%     |
| 15:00        | 0.39%          | 0.39%     | 0.32%            | 0.32%     |
| 16:00        | 0.43%          | 0.43%     | 0.39%            | 0.39%     |
| 17:00        | 0.49%          | 0.49%     | 0.44%            | 0.44%     |
| 18:00        | 0.40%          | 0.40%     | 0.31%            | 0.31%     |
| 19:00        | 0.31%          | 0.31%     | 0.24%            | 0.24%     |
| 20:00        | 0.23%          | 0.23%     | 0.20%            | 0.20%     |
| 21:00        | 0.17%          | 0.17%     | 0.12%            | 0.12%     |
| 22:00        | 0.10%          | 0.10%     | 0.07%            | 0.07%     |
| 23:00        | 0.05%          | 0.05%     | 0.03%            | 0.03%     |
| <b>Total</b> | <b>5%</b>      | <b>5%</b> | <b>5%</b>        | <b>5%</b> |

| Begin Time   | Round Lake Rd |            | Project Access B |            |
|--------------|---------------|------------|------------------|------------|
|              | NB            | SB         | WB               |            |
|              | Right         | Left       | Left             | Right      |
| 0:00         | 0.07%         | 0.04%      | 0.13%            | 0.07%      |
| 1:00         | 0.03%         | 0.01%      | 0.06%            | 0.03%      |
| 2:00         | 0.05%         | 0.03%      | 0.04%            | 0.02%      |
| 3:00         | 0.06%         | 0.03%      | 0.05%            | 0.03%      |
| 4:00         | 0.18%         | 0.09%      | 0.08%            | 0.04%      |
| 5:00         | 0.42%         | 0.21%      | 0.06%            | 0.03%      |
| 6:00         | 1.07%         | 0.53%      | 0.48%            | 0.24%      |
| 7:00         | 2.40%         | 1.20%      | 1.25%            | 0.63%      |
| 8:00         | 1.92%         | 0.96%      | 1.54%            | 0.77%      |
| 9:00         | 1.63%         | 0.82%      | 1.34%            | 0.67%      |
| 10:00        | 1.45%         | 0.72%      | 1.52%            | 0.76%      |
| 11:00        | 2.06%         | 1.03%      | 1.83%            | 0.92%      |
| 12:00        | 2.09%         | 1.04%      | 2.22%            | 1.11%      |
| 13:00        | 1.88%         | 0.94%      | 1.91%            | 0.95%      |
| 14:00        | 2.03%         | 1.02%      | 1.99%            | 0.99%      |
| 15:00        | 1.92%         | 0.96%      | 2.36%            | 1.18%      |
| 16:00        | 2.31%         | 1.16%      | 2.60%            | 1.30%      |
| 17:00        | 2.61%         | 1.31%      | 2.97%            | 1.48%      |
| 18:00        | 1.88%         | 0.94%      | 2.41%            | 1.21%      |
| 19:00        | 1.45%         | 0.73%      | 1.87%            | 0.93%      |
| 20:00        | 1.18%         | 0.59%      | 1.38%            | 0.69%      |
| 21:00        | 0.74%         | 0.37%      | 1.00%            | 0.50%      |
| 22:00        | 0.40%         | 0.20%      | 0.57%            | 0.29%      |
| 23:00        | 0.15%         | 0.08%      | 0.30%            | 0.15%      |
| <b>Total</b> | <b>30%</b>    | <b>15%</b> | <b>30%</b>       | <b>15%</b> |

| Begin Time   | SR 46      |            | Project Access C |            |
|--------------|------------|------------|------------------|------------|
|              | EB         | WB         | SB               |            |
|              | Left       | Right      | Left             | Right      |
| 0:00         | 0.09%      | 0.11%      | 0.06%            | 0.05%      |
| 1:00         | 0.04%      | 0.05%      | 0.02%            | 0.02%      |
| 2:00         | 0.02%      | 0.03%      | 0.05%            | 0.04%      |
| 3:00         | 0.03%      | 0.04%      | 0.05%            | 0.04%      |
| 4:00         | 0.05%      | 0.06%      | 0.15%            | 0.12%      |
| 5:00         | 0.04%      | 0.05%      | 0.35%            | 0.28%      |
| 6:00         | 0.32%      | 0.40%      | 0.89%            | 0.71%      |
| 7:00         | 0.83%      | 1.04%      | 2.00%            | 1.60%      |
| 8:00         | 1.02%      | 1.28%      | 1.60%            | 1.28%      |
| 9:00         | 0.89%      | 1.12%      | 1.36%            | 1.09%      |
| 10:00        | 1.02%      | 1.27%      | 1.20%            | 0.96%      |
| 11:00        | 1.22%      | 1.53%      | 1.72%            | 1.37%      |
| 12:00        | 1.48%      | 1.85%      | 1.74%            | 1.39%      |
| 13:00        | 1.27%      | 1.59%      | 1.57%            | 1.26%      |
| 14:00        | 1.33%      | 1.66%      | 1.69%            | 1.35%      |
| 15:00        | 1.58%      | 1.97%      | 1.60%            | 1.28%      |
| 16:00        | 1.73%      | 2.16%      | 1.93%            | 1.54%      |
| 17:00        | 1.98%      | 2.47%      | 2.18%            | 1.74%      |
| 18:00        | 1.61%      | 2.01%      | 1.57%            | 1.26%      |
| 19:00        | 1.24%      | 1.55%      | 1.21%            | 0.97%      |
| 20:00        | 0.92%      | 1.15%      | 0.98%            | 0.78%      |
| 21:00        | 0.66%      | 0.83%      | 0.62%            | 0.49%      |
| 22:00        | 0.38%      | 0.48%      | 0.33%            | 0.27%      |
| 23:00        | 0.20%      | 0.25%      | 0.13%            | 0.10%      |
| <b>Total</b> | <b>20%</b> | <b>25%</b> | <b>24.99%</b>    | <b>20%</b> |



### Richland Mt. Dora North - Hourly Project Volumes

| Begin Time   | Wolf Branch Rd |            | Project Access A |            |
|--------------|----------------|------------|------------------|------------|
|              | EB             | WB         | NB               |            |
|              | Right          | Left       | Left             | Right      |
| 0:00         | 3              | 3          | 2                | 2          |
| 1:00         | 1              | 1          | 1                | 1          |
| 2:00         | 1              | 1          | 1                | 1          |
| 3:00         | 1              | 1          | 2                | 2          |
| 4:00         | 2              | 2          | 5                | 5          |
| 5:00         | 2              | 2          | 11               | 11         |
| 6:00         | 12             | 12         | 27               | 27         |
| 7:00         | 31             | 31         | 61               | 61         |
| 8:00         | 39             | 39         | 49               | 49         |
| 9:00         | 34             | 34         | 41               | 41         |
| 10:00        | 38             | 38         | 36               | 36         |
| 11:00        | 46             | 46         | 52               | 52         |
| 12:00        | 56             | 56         | 52               | 52         |
| 13:00        | 48             | 48         | 47               | 47         |
| 14:00        | 50             | 50         | 51               | 51         |
| 15:00        | 60             | 60         | 48               | 48         |
| 16:00        | 66             | 66         | 57               | 57         |
| 17:00        | 75             | 75         | 66               | 66         |
| 18:00        | 61             | 61         | 47               | 47         |
| 19:00        | 47             | 47         | 37               | 37         |
| 20:00        | 35             | 35         | 30               | 30         |
| 21:00        | 25             | 25         | 19               | 19         |
| 22:00        | 15             | 15         | 10               | 10         |
| 23:00        | 8              | 8          | 4                | 4          |
| <b>Total</b> | <b>756</b>     | <b>756</b> | <b>756</b>       | <b>756</b> |

| Begin Time   | Round Lake Rd |             | Project Access B |             |
|--------------|---------------|-------------|------------------|-------------|
|              | NB            | SB          | WB               |             |
|              | Right         | Left        | Left             | Right       |
| 0:00         | 11            | 6           | 20               | 10          |
| 1:00         | 4             | 2           | 9                | 4           |
| 2:00         | 8             | 4           | 6                | 3           |
| 3:00         | 10            | 5           | 8                | 4           |
| 4:00         | 27            | 14          | 11               | 6           |
| 5:00         | 64            | 32          | 10               | 5           |
| 6:00         | 162           | 81          | 73               | 36          |
| 7:00         | 365           | 183         | 189              | 94          |
| 8:00         | 291           | 146         | 232              | 116         |
| 9:00         | 247           | 124         | 203              | 101         |
| 10:00        | 218           | 109         | 230              | 115         |
| 11:00        | 311           | 155         | 276              | 138         |
| 12:00        | 314           | 158         | 334              | 166         |
| 13:00        | 284           | 142         | 287              | 145         |
| 14:00        | 308           | 154         | 301              | 151         |
| 15:00        | 290           | 145         | 359              | 180         |
| 16:00        | 348           | 174         | 392              | 197         |
| 17:00        | 394           | 197         | 451              | 226         |
| 18:00        | 285           | 142         | 366              | 184         |
| 19:00        | 219           | 110         | 282              | 141         |
| 20:00        | 178           | 89          | 210              | 105         |
| 21:00        | 111           | 56          | 151              | 76          |
| 22:00        | 60            | 30          | 87               | 44          |
| 23:00        | 23            | 12          | 45               | 23          |
| <b>Total</b> | <b>4532</b>   | <b>2270</b> | <b>4532</b>      | <b>2270</b> |

| Begin Time   | SR 46       |             | Project Access C |             |
|--------------|-------------|-------------|------------------|-------------|
|              | EB          | WB          | SB               |             |
|              | Left        | Right       | Left             | Right       |
| 0:00         | 13          | 17          | 9                | 8           |
| 1:00         | 6           | 7           | 4                | 3           |
| 2:00         | 4           | 5           | 7                | 6           |
| 3:00         | 5           | 6           | 8                | 6           |
| 4:00         | 8           | 9           | 23               | 18          |
| 5:00         | 6           | 8           | 53               | 43          |
| 6:00         | 49          | 61          | 135              | 108         |
| 7:00         | 126         | 157         | 304              | 243         |
| 8:00         | 154         | 193         | 243              | 194         |
| 9:00         | 135         | 169         | 206              | 165         |
| 10:00        | 153         | 192         | 182              | 146         |
| 11:00        | 184         | 231         | 259              | 207         |
| 12:00        | 223         | 279         | 262              | 210         |
| 13:00        | 193         | 241         | 238              | 189         |
| 14:00        | 200         | 250         | 256              | 205         |
| 15:00        | 238         | 298         | 241              | 193         |
| 16:00        | 263         | 328         | 291              | 231         |
| 17:00        | 301         | 376         | 328              | 263         |
| 18:00        | 245         | 305         | 237              | 190         |
| 19:00        | 188         | 235         | 183              | 146         |
| 20:00        | 140         | 175         | 148              | 119         |
| 21:00        | 101         | 126         | 93               | 74          |
| 22:00        | 58          | 73          | 50               | 40          |
| 23:00        | 30          | 38          | 19               | 16          |
| <b>Total</b> | <b>3023</b> | <b>3779</b> | <b>3779</b>      | <b>3023</b> |

**Appendix E**  
FDOT Traffic Signal Warrant Analysis Summary Worksheets

## SIGNAL WARRANT ANALYSIS

### Introduction

- The Signal Warrant Analysis Spreadsheets are a tool for assisting traffic engineers when evaluating the need for a traffic signal installation
- The filled spreadsheets can be used as part of the supporting documents for the signal warrant evaluation

Note: This templates are a useful resource, but it remains necessary to apply engineering judgment and to consider specific environmental, traffic, geometric, and operational conditions

### Instructions

*Fill in "Orange" areas only*

*Automated cells based on in Input Data in "orange" cells*

*General Information*

Fill in below the general information including:

District, County (drop-down menu)

City, Engineer, Date

Major and Minor Street with corresponding number of lanes and speed limits

*Enter Eight Hour Volumes*

Any 8 hours of an average day. Major-street and minor-street volumes shall be for the same 8 hours; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B for 80% columns only. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

*Enter Four Hour Volumes*

Any 4 hours of an average day. Vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only, not required to be on the same approach during each of the 4 hours)

*Enter Pedestrian Volumes (4-hr)*

Pedestrians per hour crossing the major street (total of all crossings)

*Enter Peak Hour Volumes*

Vehicular: Any four consecutive 15-minute periods of an average day

Pedestrian: Any four consecutive 15-minute periods of an average day representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings)

**Input Data**

City: **Mt. Dora**  
 County: **11 – Lake**  
 District: **Five**

Engineer: **TMC**  
 Date: **October 25, 2023**

Major Street: **Wolf Branch Rd**  
 Minor Street: **Project Access A**

# Lanes: **2** Major Approach Speed: **45**  
 # Lanes: **2** Minor Approach Speed: **30**

| Eight Hour Volumes (Condition A) |  |                                      |
|----------------------------------|--|--------------------------------------|
| Hours                            | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) |
| 7:00 AM                          | 517  | 90                                   |
| 12:00 PM                         | 556  | 78                                   |
| 1:00 PM                          | 531  | 71                                   |
| 2:00 PM                          | 522  | 77                                   |
| 3:00 PM                          | 580  | 72                                   |
| 4:00 PM                          | 653  | 87                                   |
| 5:00 PM                          | 765  | 99                                   |
| 6:00 PM                          | 603  | 71                                   |

| Eight Hour Volumes (Condition B) |  |                                      |
|----------------------------------|--|--------------------------------------|
| Hours                            | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) |
| 7:00 AM                          | 517  | 90                                   |
| 12:00 PM                         | 556  | 78                                   |
| 1:00 PM                          | 531  | 71                                   |
| 2:00 PM                          | 522  | 77                                   |
| 3:00 PM                          | 580  | 72                                   |
| 4:00 PM                          | 653  | 87                                   |
| 5:00 PM                          | 765  | 99                                   |
| 6:00 PM                          | 603  | 71                                   |

| Highest Four Hour Vehicular Volumes |  |                                      |
|-------------------------------------|--|--------------------------------------|
| Hours                               | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) |
| 3:00 PM                             | 580  | 72                                   |
| 4:00 PM                             | 653  | 87                                   |
| 5:00 PM                             | 765  | 99                                   |
| 6:00 PM                             | 603  | 71                                   |

| Highest Four Hour Pedestrian Volumes |  |  |
|--------------------------------------|--|--|
| Hours                                | Major Street<br>(total of both approaches) | Pedestrian<br>Crossings on Major<br>Street |
|                                      |  |  |
|                                      |  |  |
|                                      |  |  |
|                                      |  |  |

| Vehicular Peak Hour Volumes |  |                                      |                          |
|-----------------------------|--|--------------------------------------|--------------------------|
| Peak Hour                   | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) | Total Entering<br>Volume |
| 5:00 PM                     | 765  | 99                                   | 864                      |

| Pedestrian Peak Hour Volumes |  |   |
|------------------------------|--|---|
| Peak Hour                    | Major Street<br>(total of both approaches) | Pedestrian<br>Crossing Volumes<br>on Major Street |
|                              |  |   |

## TRAFFIC SIGNAL WARRANT SUMMARY

City: Mt. Dora  
County: 11 – Lake  
District: Five

Engineer: TMC  
Date: October 25, 2023

Major Street: Wolf Branch Rd Lanes: 2 Major Approach Speed: 45  
Minor Street: Project Access A Lanes: 2 Minor Approach Speed: 30

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

### Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)?  Yes  No
2. Is the intersection in a built-up area of an isolated community with a population < 10,000?  Yes  No
- "70%" volume level **may** be used if Question 1 or 2 above is answered "Yes"  70%  100%

### WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied for eight hours.  Yes  No

Warrant 1 is also satisfied if both Condition A and Condition B are "80%" satisfied (should only be applied after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems).  Yes  No

#### Condition A - Minimum Vehicular Volume

Condition A is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

- 100% Satisfied:  Yes  No  
80% Satisfied:  Yes  No  
70% Satisfied:  Yes  No

| Number of Lanes for moving traffic on each approach |           | Vehicles per hour on major-street (total of both approaches) |                  |                  | Vehicles per hour on minor-street (one direction only) |                  |                  |
|---|-----------|--|------------------|------------------|--|------------------|------------------|
| Major   | Minor     | 100% <sup>a</sup>  | 80% <sup>b</sup> | 70% <sup>c</sup> | 100% <sup>a</sup>                                      | 80% <sup>b</sup> | 70% <sup>c</sup> |
| 1   | 1         | 500  | 400              | 350              | 150  | 120              | 105              |
| 2 or more   | 1         | 600  | 480              | 420              | 150  | 120              | 105              |
| 2 or more   | 2 or more | 600  | 480              | 420              | 200  | 160              | 140              |
| 1   | 2 or more | 500  | 400              | 350              | 200  | 160              | 140              |

<sup>a</sup> Basic Minimum hourly volume

<sup>b</sup> Used for combination of Conditions A and B after adequate trial of other remedial measures

<sup>c</sup> May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

| Street | Eight Highest Hours |          |         |         |         |         |         |         |
|--------|---------------------|----------|---------|---------|---------|---------|---------|---------|
|        | 7:00 AM             | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM | 5:00 PM | 6:00 PM |
| Major  | 517                 | 556      | 531     | 522     | 580     | 653     | 765     | 603     |
| Minor  | 90                  | 78       | 71      | 77      | 72      | 87      | 99      | 71      |

Existing Volumes

State of Florida Department of Transportation  
**TRAFFIC SIGNAL WARRANT SUMMARY**

**Condition B - Interruption of Continuous Traffic**

Condition B is intended for application where Condition A is not satisfied and the traffic volume on a major street is so heavy that traffic on the minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

Applicable:  Yes  No

100% Satisfied:  Yes  No

80% Satisfied:  Yes  No

70% Satisfied:  Yes  No

| Number of Lanes for moving traffic on each approach |           | Vehicles per hour on major-street (total of both approaches) |                  |                  | Vehicles per hour on minor-street (one direction only) |                  |                  |
|---|-----------|--|------------------|------------------|--|------------------|------------------|
| Major   | Minor     | 100% <sup>a</sup>  | 80% <sup>b</sup> | 70% <sup>c</sup> | 100% <sup>a</sup>                                      | 80% <sup>b</sup> | 70% <sup>c</sup> |
| 1   | 1         | 750  | 600              | 525              | 75   | 60               | 53               |
| 2 or more   | 1         | 900  | 720              | 630              | 75   | 60               | 53               |
| 2 or more   | 2 or more | 900  | 720              | 630              | 100  | 80               | 70               |
| 1   | 2 or more | 750  | 600              | 525              | 100  | 80               | 70               |

<sup>a</sup> Basic Minimum hourly volume

<sup>b</sup> Used for combination of Conditions A and B after adequate trial of other remedial measures

<sup>c</sup> May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

| Eight Highest Hours |         |          |         |         |         |         |         |         |
|---------------------|---------|----------|---------|---------|---------|---------|---------|---------|
| Street              | 7:00 AM | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM | 5:00 PM | 6:00 PM |
| Major               | 517     | 556      | 531     | 522     | 580     | 653     | 765     | 603     |
| Minor               | 90      | 78       | 71      | 77      | 72      | 87      | 99      | 71      |

Existing Volumes

# TRAFFIC SIGNAL WARRANT SUMMARY

City: **Mt. Dora**  
County: **11 – Lake**  
District: **Five**

Engineer: **TMC**  
Date: **October 25, 2023**

Major Street: **Wolf Branch Rd** Lanes: **2** Major Approach Speed: **45**  
Minor Street: **Project Access A** Lanes: **2** Minor Approach Speed: **30**

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

### Volume Level Criteria

- Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)?  Yes  No
  - Is the intersection in a built-up area of an isolated community with a population < 10,000?  Yes  No
- "70%" volume level may be used if Question 1 or 2 above is answered "Yes"  Yes  No

### WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

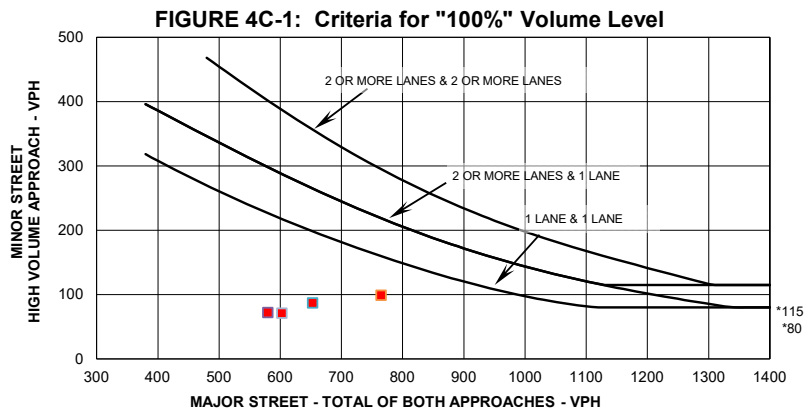
If all four points lie above the applicable line, then the warrant is satisfied.

Applicable:  Yes  No  
Satisfied:  Yes  No

Plot four volume combinations on the applicable figure below.

#### 100% Volume Level

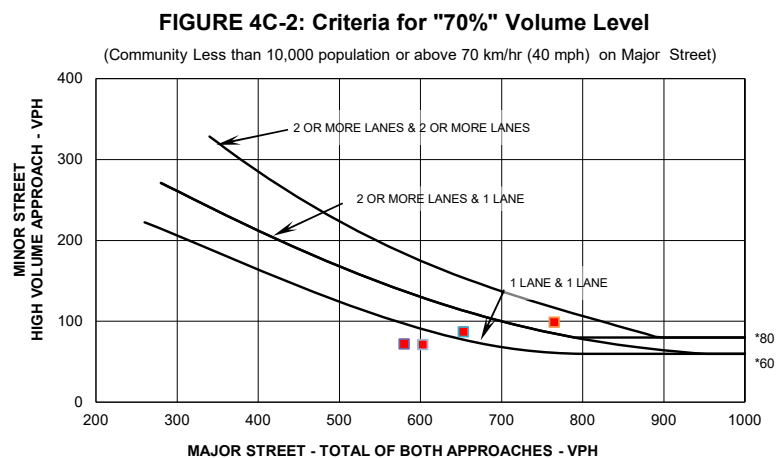
| Four Highest Hours | Volumes      |              |
|--------------------|--------------|--------------|
|                    | Major Street | Minor Street |
| 3:00 PM            | 580          | 72           |
| 4:00 PM            | 653          | 87           |
| 5:00 PM            | 765          | 99           |
| 6:00 PM            | 603          | 71           |



\* Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

#### 70% Volume Level

| Four Highest Hours | Volumes      |              |
|--------------------|--------------|--------------|
|                    | Major Street | Minor Street |
| 3:00 PM            | 580          | 72           |
| 4:00 PM            | 653          | 87           |
| 5:00 PM            | 765          | 99           |
| 6:00 PM            | 603          | 71           |



\* Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

## SIGNAL WARRANT ANALYSIS

### Introduction

- The Signal Warrant Analysis Spreadsheets are a tool for assisting traffic engineers when evaluating the need for a traffic signal installation
- The filled spreadsheets can be used as part of the supporting documents for the signal warrant evaluation

Note: This templates are a useful resource, but it remains necessary to apply engineering judgment and to consider specific environmental, traffic, geometric, and operational conditions

### Instructions

*Fill in "Orange" areas only*

*Automated cells based on in Input  
 Data in "orange" cells*

*General Information*

Fill in below the general information including:

District, County (drop-down menu)

City, Engineer, Date

Major and Minor Street with corresponding number of lanes and speed limits

*Enter Eight Hour Volumes*

Any 8 hours of an average day. Major-street and minor-street volumes shall be for the same 8 hours; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B for 80% columns only. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

*Enter Four Hour Volumes*

Any 4 hours of an average day. Vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only, not required to be on the same approach during each of the 4 hours)

*Enter Pedestrian Volumes (4-hr)*

Pedestrians per hour crossing the major street (total of all crossings)

*Enter Peak Hour Volumes*

Vehicular: Any four consecutive 15-minute periods of an average day

Pedestrian: Any four consecutive 15-minute periods of an average day representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings)



**Input Data**

City: **Mt. Dora**  
 County: **11 – Lake**  
 District: **Five**

Engineer: **TMC**  
 Date: **October 25, 2023**

Major Street: **Round Lake Rd**  
 Minor Street: **Project Access B**

# Lanes: **2** Major Approach Speed: **45**  
 # Lanes: **2** Minor Approach Speed: **30**

| Eight Hour Volumes (Condition A) |  |                                      |
|----------------------------------|--|--------------------------------------|
| Hours                            | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) |
| 11:00 AM                         | 939  | 345                                  |
| 12:00 PM                         | 1040                                       | 417                                  |
| 1:00 PM                          | 940  | 360                                  |
| 2:00 PM                          | 970  | 377                                  |
| 3:00 PM                          | 1067                                       | 449                                  |
| 4:00 PM                          | 1212                                       | 491                                  |
| 5:00 PM                          | 1378                                       | 564                                  |
| 6:00 PM                          | 1067                                       | 458                                  |

| Eight Hour Volumes (Condition B) |  |                                      |
|----------------------------------|--|--------------------------------------|
| Hours                            | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) |
| 11:00 AM                         | 939  | 345                                  |
| 12:00 PM                         | 1040                                       | 417                                  |
| 1:00 PM                          | 940  | 360                                  |
| 2:00 PM                          | 970  | 377                                  |
| 3:00 PM                          | 1067                                       | 449                                  |
| 4:00 PM                          | 1212                                       | 491                                  |
| 5:00 PM                          | 1378                                       | 564                                  |
| 6:00 PM                          | 1067                                       | 458                                  |

| Highest Four Hour Vehicular Volumes |  |                                      |
|-------------------------------------|--|--------------------------------------|
| Hours                               | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) |
| 3:00 PM                             | 1067                                       | 449                                  |
| 4:00 PM                             | 1212                                       | 491                                  |
| 5:00 PM                             | 1378                                       | 564                                  |
| 6:00 PM                             | 1067                                       | 458                                  |

| Highest Four Hour Pedestrian Volumes |  |  |
|--------------------------------------|--|--|
| Hours                                | Major Street<br>(total of both approaches) | Pedestrian<br>Crossings on Major<br>Street |
|                                      |  |  |
|                                      |  |  |
|                                      |  |  |
|                                      |  |  |

| Vehicular Peak Hour Volumes |  |                                      |                          |
|-----------------------------|--|--------------------------------------|--------------------------|
| Peak Hour                   | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) | Total Entering<br>Volume |
| 5:00 PM                     | 1378                                       | 564                                  | 1942                     |

| Pedestrian Peak Hour Volumes |  |   |
|------------------------------|--|---|
| Peak Hour                    | Major Street<br>(total of both approaches) | Pedestrian<br>Crossing Volumes<br>on Major Street |
|                              |  |   |

## TRAFFIC SIGNAL WARRANT SUMMARY

City: Mt. Dora  
County: 11 – Lake  
District: Five

Engineer: TMC  
Date: October 25, 2023

Major Street: Round Lake Rd Lanes: 2 Major Approach Speed: 45  
Minor Street: Project Access B Lanes: 2 Minor Approach Speed: 30

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

### Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)?  Yes  No
2. Is the intersection in a built-up area of an isolated community with a population < 10,000?  Yes  No
- "70%" volume level **may** be used if Question 1 or 2 above is answered "Yes"  70%  100%

### WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied for eight hours.  Yes  No

Warrant 1 is also satisfied if both Condition A and Condition B are "80%" satisfied (should only be applied after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems).  Yes  No

#### Condition A - Minimum Vehicular Volume

Condition A is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

- 100% Satisfied:  Yes  No  
80% Satisfied:  Yes  No  
70% Satisfied:  Yes  No

| Number of Lanes for moving traffic on each approach |           | Vehicles per hour on major-street (total of both approaches) |                  |                  | Vehicles per hour on minor-street (one direction only) |                  |                  |
|---|-----------|--|------------------|------------------|--|------------------|------------------|
| Major   | Minor     | 100% <sup>a</sup>  | 80% <sup>b</sup> | 70% <sup>c</sup> | 100% <sup>a</sup>                                      | 80% <sup>b</sup> | 70% <sup>c</sup> |
| 1   | 1         | 500  | 400              | 350              | 150  | 120              | 105              |
| 2 or more   | 1         | 600  | 480              | 420              | 150  | 120              | 105              |
| 2 or more   | 2 or more | 600  | 480              | 420              | 200  | 160              | 140              |
| 1   | 2 or more | 500  | 400              | 350              | 200  | 160              | 140              |

<sup>a</sup> Basic Minimum hourly volume

<sup>b</sup> Used for combination of Conditions A and B after adequate trial of other remedial measures

<sup>c</sup> May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

| Street | Eight Highest Hours |          |         |         |         |         |         |         |
|--------|---------------------|----------|---------|---------|---------|---------|---------|---------|
|        | 11:00 AM            | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM | 5:00 PM | 6:00 PM |
| Major  | 939                 | 1,040    | 940     | 970     | 1,067   | 1,212   | 1,378   | 1,067   |
| Minor  | 345                 | 417      | 360     | 377     | 449     | 491     | 564     | 458     |

Existing Volumes

State of Florida Department of Transportation  
**TRAFFIC SIGNAL WARRANT SUMMARY**

**Condition B - Interruption of Continuous Traffic**

*Condition B is intended for application where Condition A is not satisfied and the traffic volume on a major street is so heavy that traffic on the minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.*

Applicable:  Yes  No

100% Satisfied:  Yes  No

80% Satisfied:  Yes  No

70% Satisfied:  Yes  No

| Number of Lanes for moving traffic on each approach |           | Vehicles per hour on major-street (total of both approaches) |                  |                  | Vehicles per hour on minor-street (one direction only) |                  |                  |
|---|-----------|--|------------------|------------------|--|------------------|------------------|
| Major   | Minor     | 100% <sup>a</sup>  | 80% <sup>b</sup> | 70% <sup>c</sup> | 100% <sup>a</sup>                                      | 80% <sup>b</sup> | 70% <sup>c</sup> |
| 1   | 1         | 750  | 600              | 525              | 75   | 60               | 53               |
| 2 or more   | 1         | 900  | 720              | 630              | 75   | 60               | 53               |
| 2 or more   | 2 or more | 900  | 720              | 630              | 100  | 80               | 70               |
| 1   | 2 or more | 750  | 600              | 525              | 100  | 80               | 70               |

<sup>a</sup> Basic Minimum hourly volume

<sup>b</sup> Used for combination of Conditions A and B after adequate trial of other remedial measures

<sup>c</sup> May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

*Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.*

| Eight Highest Hours |          |          |         |         |         |         |         |         |
|---------------------|----------|----------|---------|---------|---------|---------|---------|---------|
| Street              | 11:00 AM | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM | 5:00 PM | 6:00 PM |
| Major               | 939      | 1,040    | 940     | 970     | 1,067   | 1,212   | 1,378   | 1,067   |
| Minor               | 345      | 417      | 360     | 377     | 449     | 491     | 564     | 458     |

**Existing Volumes**

# TRAFFIC SIGNAL WARRANT SUMMARY

City: **Mt. Dora**  
County: **11 – Lake**  
District: **Five**

Engineer: **TMC**  
Date: **October 25, 2023**

Major Street: **Round Lake Rd** Lanes: **2** Major Approach Speed: **45**  
Minor Street: **Project Access B** Lanes: **2** Minor Approach Speed: **30**

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

### Volume Level Criteria

- Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)?  Yes  No
  - Is the intersection in a built-up area of an isolated community with a population < 10,000?  Yes  No
- "70%" volume level may be used if Question 1 or 2 above is answered "Yes"  Yes  No

### WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

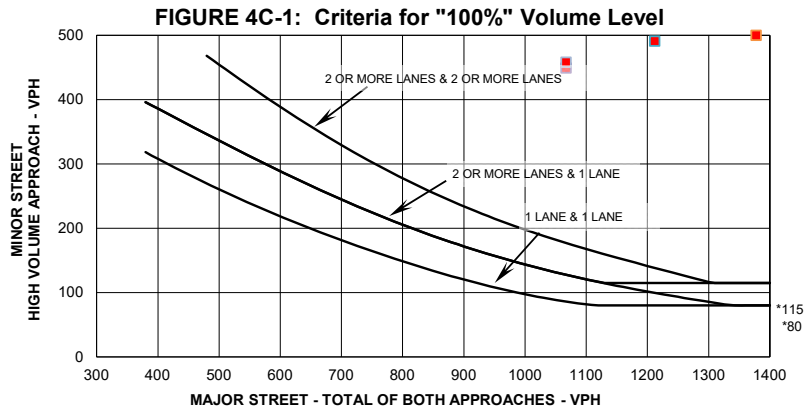
If all four points lie above the appropriate line, then the warrant is satisfied.

Applicable:  Yes  No  
Satisfied:  Yes  No

Plot four volume combinations on the applicable figure below.

#### 100% Volume Level

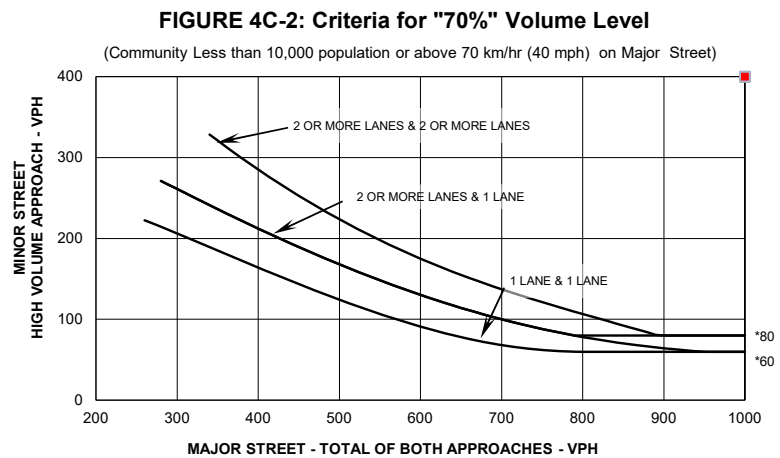
| Four Highest Hours | Volumes      |              |
|--------------------|--------------|--------------|
|                    | Major Street | Minor Street |
| 3:00 PM            | 1067         | 449          |
| 4:00 PM            | 1212         | 491          |
| 5:00 PM            | 1378         | 564          |
| 6:00 PM            | 1067         | 458          |



\* Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

#### 70% Volume Level

| Four Highest Hours | Volumes      |              |
|--------------------|--------------|--------------|
|                    | Major Street | Minor Street |
| 3:00 PM            | 1067         | 449          |
| 4:00 PM            | 1212         | 491          |
| 5:00 PM            | 1378         | 564          |
| 6:00 PM            | 1067         | 458          |



\* Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

## SIGNAL WARRANT ANALYSIS

### Introduction

- The Signal Warrant Analysis Spreadsheets are a tool for assisting traffic engineers when evaluating the need for a traffic signal installation
- The filled spreadsheets can be used as part of the supporting documents for the signal warrant evaluation

Note: This templates are a useful resource, but it remains necessary to apply engineering judgment and to consider specific environmental, traffic, geometric, and operational conditions

### Instructions

*Fill in "Orange" areas only*

*Automated cells based on in Input Data in "orange" cells*

*General Information*

Fill in below the general information including:

District, County (drop-down menu)

City, Engineer, Date

Major and Minor Street with corresponding number of lanes and speed limits

*Enter Eight Hour Volumes*

Any 8 hours of an average day. Major-street and minor-street volumes shall be for the same 8 hours; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B for 80% columns only. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

*Enter Four Hour Volumes*

Any 4 hours of an average day. Vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only, not required to be on the same approach during each of the 4 hours)

*Enter Pedestrian Volumes (4-hr)*

Pedestrians per hour crossing the major street (total of all crossings)

*Enter Peak Hour Volumes*

Vehicular: Any four consecutive 15-minute periods of an average day

Pedestrian: Any four consecutive 15-minute periods of an average day representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings)

**Input Data**

City: **Mt. Dora**  
 County: **11 – Lake**  
 District: **Five**

Engineer: **TMC**  
 Date: **October 25, 2023**

Major Street: **SR 46**  
 Minor Street: **Project Access C**

# Lanes: **2** Major Approach Speed: **45**  
 # Lanes: **2** Minor Approach Speed: **30**

| Eight Hour Volumes (Condition A) |  |                                      |
|----------------------------------|--|--------------------------------------|
| Hours                            | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) |
| 11:00 AM                         | 1435                                       | 360                                  |
| 12:00 PM                         | 1595                                       | 364                                  |
| 1:00 PM                          | 1505                                       | 330                                  |
| 2:00 PM                          | 1491                                       | 355                                  |
| 3:00 PM                          | 1669                                       | 335                                  |
| 4:00 PM                          | 1871                                       | 404                                  |
| 5:00 PM                          | 2188                                       | 457                                  |
| 6:00 PM                          | 1732                                       | 329                                  |

| Eight Hour Volumes (Condition B) |  |                                      |
|----------------------------------|--|--------------------------------------|
| Hours                            | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) |
| 11:00 AM                         | 1435                                       | 360                                  |
| 12:00 PM                         | 1595                                       | 364                                  |
| 1:00 PM                          | 1505                                       | 330                                  |
| 2:00 PM                          | 1491                                       | 355                                  |
| 3:00 PM                          | 1669                                       | 335                                  |
| 4:00 PM                          | 1871                                       | 404                                  |
| 5:00 PM                          | 2188                                       | 457                                  |
| 6:00 PM                          | 1732                                       | 329                                  |

| Highest Four Hour Vehicular Volumes |  |                                      |
|-------------------------------------|--|--------------------------------------|
| Hours                               | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) |
| 3:00 PM                             | 1669                                       | 335                                  |
| 4:00 PM                             | 1871                                       | 404                                  |
| 5:00 PM                             | 2188                                       | 457                                  |
| 6:00 PM                             | 1732                                       | 329                                  |

| Highest Four Hour Pedestrian Volumes |  |  |
|--------------------------------------|--|--|
| Hours                                | Major Street<br>(total of both approaches) | Pedestrian<br>Crossings on Major<br>Street |
|                                      |  |  |
|                                      |  |  |
|                                      |  |  |
|                                      |  |  |

| Vehicular Peak Hour Volumes |  |                                      |                          |
|-----------------------------|--|--------------------------------------|--------------------------|
| Peak Hour                   | Major Street<br>(total of both approaches) | Minor Street<br>(one direction only) | Total Entering<br>Volume |
| 5:00 PM                     | 2188                                       | 457                                  | 2645                     |

| Pedestrian Peak Hour Volumes |  |   |
|------------------------------|--|---|
| Peak Hour                    | Major Street<br>(total of both approaches) | Pedestrian<br>Crossing Volumes<br>on Major Street |
|                              |  |   |

## TRAFFIC SIGNAL WARRANT SUMMARY

City: Mt. Dora  
County: 11 – Lake  
District: Five

Engineer: TMC  
Date: October 25, 2023

Major Street: SR 46 Lanes: 2 Major Approach Speed: 45  
Minor Street: Project Access C Lanes: 2 Minor Approach Speed: 30

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

### Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)?  Yes  No
2. Is the intersection in a built-up area of an isolated community with a population < 10,000?  Yes  No
- "70%" volume level **may** be used if Question 1 or 2 above is answered "Yes"  70%  100%

### WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied for eight hours.  Yes  No

Warrant 1 is also satisfied if both Condition A and Condition B are "80%" satisfied (should only be applied after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems).  Yes  No

#### Condition A - Minimum Vehicular Volume

Condition A is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

- 100% Satisfied:  Yes  No  
80% Satisfied:  Yes  No  
70% Satisfied:  Yes  No

| Number of Lanes for moving traffic on each approach |           | Vehicles per hour on major-street (total of both approaches) |                  |                  | Vehicles per hour on minor-street (one direction only) |                  |                  |
|---|-----------|--|------------------|------------------|--|------------------|------------------|
| Major   | Minor     | 100% <sup>a</sup>  | 80% <sup>b</sup> | 70% <sup>c</sup> | 100% <sup>a</sup>                                      | 80% <sup>b</sup> | 70% <sup>c</sup> |
| 1   | 1         | 500  | 400              | 350              | 150  | 120              | 105              |
| 2 or more   | 1         | 600  | 480              | 420              | 150  | 120              | 105              |
| 2 or more   | 2 or more | 600  | 480              | 420              | 200  | 160              | 140              |
| 1   | 2 or more | 500  | 400              | 350              | 200  | 160              | 140              |

<sup>a</sup> Basic Minimum hourly volume

<sup>b</sup> Used for combination of Conditions A and B after adequate trial of other remedial measures

<sup>c</sup> May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

| Street | Eight Highest Hours |          |         |         |         |         |         |         |
|--------|---------------------|----------|---------|---------|---------|---------|---------|---------|
|        | 11:00 AM            | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM | 5:00 PM | 6:00 PM |
| Major  | 1,435               | 1,595    | 1,505   | 1,491   | 1,669   | 1,871   | 2,188   | 1,732   |
| Minor  | 360                 | 364      | 330     | 355     | 335     | 404     | 457     | 329     |

Existing Volumes

State of Florida Department of Transportation  
**TRAFFIC SIGNAL WARRANT SUMMARY**

**Condition B - Interruption of Continuous Traffic**

Condition B is intended for application where Condition A is not satisfied and the traffic volume on a major street is so heavy that traffic on the minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

Applicable:  Yes  No

100% Satisfied:  Yes  No

80% Satisfied:  Yes  No

70% Satisfied:  Yes  No

| Number of Lanes for moving traffic on each approach |           | Vehicles per hour on major-street (total of both approaches) |                  |                  | Vehicles per hour on minor-street (one direction only) |                  |                  |
|---|-----------|--|------------------|------------------|--|------------------|------------------|
| Major   | Minor     | 100% <sup>a</sup>  | 80% <sup>b</sup> | 70% <sup>c</sup> | 100% <sup>a</sup>                                      | 80% <sup>b</sup> | 70% <sup>c</sup> |
| 1   | 1         | 750  | 600              | 525              | 75   | 60               | 53               |
| 2 or more   | 1         | 900  | 720              | 630              | 75   | 60               | 53               |
| 2 or more   | 2 or more | 900  | 720              | 630              | 100  | 80               | 70               |
| 1   | 2 or more | 750  | 600              | 525              | 100  | 80               | 70               |

<sup>a</sup> Basic Minimum hourly volume

<sup>b</sup> Used for combination of Conditions A and B after adequate trial of other remedial measures

<sup>c</sup> May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

| Eight Highest Hours |          |          |         |         |         |         |         |         |
|---------------------|----------|----------|---------|---------|---------|---------|---------|---------|
| Street              | 11:00 AM | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM | 5:00 PM | 6:00 PM |
| Major               | 1,435    | 1,595    | 1,505   | 1,491   | 1,669   | 1,871   | 2,188   | 1,732   |
| Minor               | 360      | 364      | 330     | 355     | 335     | 404     | 457     | 329     |

Existing Volumes



**Appendix F**  
HCM TWSC and Signal Results

HCM 6th TWSC  
1: Project Access A & Wolf Branch Rd

Projected AM Peak Hour TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.5  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑    | ↗    | ↘    | ↑    | ↘    | ↗    |
| Traffic Vol, veh/h       | 194  | 31   | 31   | 261  | 61   | 61   |
| Future Vol, veh/h        | 194  | 31   | 31   | 261  | 61   | 61   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 250  | 250  | -    | 0    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 1    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 211  | 34   | 34   | 284  | 66   | 66   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0      | 0      | 245    | 0 | 563   |
| Stage 1              | -      | -      | -      | - | 211   |
| Stage 2              | -      | -      | -      | - | 352   |
| Critical Hdwy        | -      | -      | 4.12   | - | 6.42  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  |
| Follow-up Hdwy       | -      | -      | 2.218  | - | 3.518 |
| Pot Cap-1 Maneuver   | -      | -      | 1321   | - | 487   |
| Stage 1              | -      | -      | -      | - | 824   |
| Stage 2              | -      | -      | -      | - | 712   |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | 1321   | - | 474   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 556   |
| Stage 1              | -      | -      | -      | - | 824   |
| Stage 2              | -      | -      | -      | - | 693   |

| Approach             | EB | WB  | NB |
|----------------------|----|-----|----|
| HCM Control Delay, s | 0  | 0.8 | 11 |
| HCM LOS              |    |     | B  |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 556   | 829   | -   | -   | 1321  | -   |
| HCM Lane V/C Ratio    | 0.119 | 0.08  | -   | -   | 0.026 | -   |
| HCM Control Delay (s) | 12.4  | 9.7   | -   | -   | 7.8   | -   |
| HCM Lane LOS          | B     | A     | -   | -   | A     | -   |
| HCM 95th %tile Q(veh) | 0.4   | 0.3   | -   | -   | 0.1   | -   |

HCM 6th TWSC  
 1: Project Access A & Wolf Branch Rd

Projected PM Peak Hour TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.6  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑    | ↗    | ↖    | ↑    | ↖    | ↗    |
| Traffic Vol, veh/h       | 297  | 75   | 75   | 318  | 66   | 66   |
| Future Vol, veh/h        | 297  | 75   | 75   | 318  | 66   | 66   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 250  | 250  | -    | 0    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 1    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 323  | 82   | 82   | 346  | 72   | 72   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0      | 0      | 405    | 0 | 833 323     |
| Stage 1              | -      | -      | -      | - | 323 -       |
| Stage 2              | -      | -      | -      | - | 510 -       |
| Critical Hdwy        | -      | -      | 4.12   | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | -      | -      | 2.218  | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 1154   | - | 339 718     |
| Stage 1              | -      | -      | -      | - | 734 -       |
| Stage 2              | -      | -      | -      | - | 603 -       |
| Platoon blocked, %   | -      | -      | -      | - | -           |
| Mov Cap-1 Maneuver   | -      | -      | 1154   | - | 315 718     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 429 -       |
| Stage 1              | -      | -      | -      | - | 734 -       |
| Stage 2              | -      | -      | -      | - | 560 -       |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 1.6 | 12.9 |
| HCM LOS              |    |     | B    |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 429   | 718   | -   | -   | 1154  | -   |
| HCM Lane V/C Ratio    | 0.167 | 0.1   | -   | -   | 0.071 | -   |
| HCM Control Delay (s) | 15.1  | 10.6  | -   | -   | 8.4   | -   |
| HCM Lane LOS          | C     | B     | -   | -   | A     | -   |
| HCM 95th %tile Q(veh) | 0.6   | 0.3   | -   | -   | 0.2   | -   |

HCM 6th TWSC  
2: Round Lake Rd & Project Access B

Projected AM Peak Hour TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 6.7  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↘    | ↗    | ↑    | ↗    | ↘    | ↑    |
| Traffic Vol, veh/h       | 189  | 94   | 200  | 365  | 183  | 270  |
| Future Vol, veh/h        | 189  | 94   | 200  | 365  | 183  | 270  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | 0    | -    | 250  | 250  | -    |
| Veh in Median Storage, # | 1    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 205  | 102  | 217  | 397  | 199  | 293  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |   |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 908    | 217    | 0      | 0 | 614   | 0 |
| Stage 1              | 217    | -      | -      | - | -     | - |
| Stage 2              | 691    | -      | -      | - | -     | - |
| Critical Hdwy        | 6.42   | 6.22   | -      | - | 4.12  | - |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     | - |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     | - |
| Follow-up Hdwy       | 3.518  | 3.318  | -      | - | 2.218 | - |
| Pot Cap-1 Maneuver   | 306    | 823    | -      | - | 965   | - |
| Stage 1              | 819    | -      | -      | - | -     | - |
| Stage 2              | 497    | -      | -      | - | -     | - |
| Platoon blocked, %   |        |        | -      | - |       |   |
| Mov Cap-1 Maneuver   | 243    | 823    | -      | - | 965   | - |
| Mov Cap-2 Maneuver   | 332    | -      | -      | - | -     | - |
| Stage 1              | 819    | -      | -      | - | -     | - |
| Stage 2              | 395    | -      | -      | - | -     | - |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 24.6 | 0  | 3.9 |
| HCM LOS              | C    |    |     |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL   | SBT |
|-----------------------|-----|-----|-------|-------|-------|-----|
| Capacity (veh/h)      | -   | -   | 332   | 823   | 965   | -   |
| HCM Lane V/C Ratio    | -   | -   | 0.619 | 0.124 | 0.206 | -   |
| HCM Control Delay (s) | -   | -   | 31.9  | 10    | 9.7   | -   |
| HCM Lane LOS          | -   | -   | D     | B     | A     | -   |
| HCM 95th %tile Q(veh) | -   | -   | 3.9   | 0.4   | 0.8   | -   |

HCM 6th TWSC  
 2: Round Lake Rd & Project Access B

Projected PM Peak Hour TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 99   |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↘    | ↗    | ↑    | ↗    | ↘    | ↑    |
| Traffic Vol, veh/h       | 451  | 226  | 307  | 394  | 197  | 329  |
| Future Vol, veh/h        | 451  | 226  | 307  | 394  | 197  | 329  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | 0    | -    | 250  | 250  | -    |
| Veh in Median Storage, # | 1    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 490  | 246  | 334  | 428  | 214  | 358  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 1120   | 334    | 0      | 0 | 762   |
| Stage 1              | 334    | -      | -      | - | -     |
| Stage 2              | 786    | -      | -      | - | -     |
| Critical Hdwy        | 6.42   | 6.22   | -      | - | 4.12  |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.518  | 3.318  | -      | - | 2.218 |
| Pot Cap-1 Maneuver   | ~ 228  | 708    | -      | - | 850   |
| Stage 1              | 725    | -      | -      | - | -     |
| Stage 2              | ~ 449  | -      | -      | - | -     |
| Platoon blocked, %   |        |        |        |   |       |
| Mov Cap-1 Maneuver   | ~ 171  | 708    | -      | - | 850   |
| Mov Cap-2 Maneuver   | ~ 272  | -      | -      | - | -     |
| Stage 1              | 725    | -      | -      | - | -     |
| Stage 2              | ~ 336  | -      | -      | - | -     |

| Approach             | WB    | NB | SB |
|----------------------|-------|----|----|
| HCM Control Delay, s | 275.3 | 0  | 4  |
| HCM LOS              | F     |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | WBLn2    | SBL   | SBT   |
|-----------------------|-----|----------|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 272      | 708   | 850   |
| HCM Lane V/C Ratio    | -   | -        | 1.802    | 0.347 | 0.252 |
| HCM Control Delay (s) | -   | -        | \$ 406.9 | 12.8  | 10.7  |
| HCM Lane LOS          | -   | -        | F        | B     | B     |
| HCM 95th %tile Q(veh) | -   | -        | 32.9     | 1.6   | 1     |

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

| Intersection             |       |      |      |      |      |      |
|--------------------------|-------|------|------|------|------|------|
| Int Delay, s/veh         | 155.1 |      |      |      |      |      |
| Movement                 | EBL   | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      | ↘     | ↗    | ↗    | ↘    | ↘    | ↘    |
| Traffic Vol, veh/h       | 126   | 479  | 646  | 157  | 304  | 243  |
| Future Vol, veh/h        | 126   | 479  | 646  | 157  | 304  | 243  |
| Conflicting Peds, #/hr   | 0     | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free  | Free | Free | Free | Stop | Stop |
| RT Channelized           | -     | None | -    | None | -    | None |
| Storage Length           | 250   | -    | -    | 250  | 0    | 0    |
| Veh in Median Storage, # | -     | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -     | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92    | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2     | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 137   | 521  | 702  | 171  | 330  | 264  |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 873    | 0      | -      | 0 | 1497 702    |
| Stage 1              | -      | -      | -      | - | 702 -       |
| Stage 2              | -      | -      | -      | - | 795 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 773    | -      | -      | - | ~ 135 438   |
| Stage 1              | -      | -      | -      | - | 491 -       |
| Stage 2              | -      | -      | -      | - | 445 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 773    | -      | -      | - | ~ 111 438   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | ~ 111 -     |
| Stage 1              | -      | -      | -      | - | 404 -       |
| Stage 2              | -      | -      | -      | - | 445 -       |

| Approach             | EB  | WB | SB     |
|----------------------|-----|----|--------|
| HCM Control Delay, s | 2.2 | 0  | \$ 552 |
| HCM LOS              |     |    | F      |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1    | SBLn2 |
|-----------------------|-------|-----|-----|-----|----------|-------|
| Capacity (veh/h)      | 773   | -   | -   | -   | 111      | 438   |
| HCM Lane V/C Ratio    | 0.177 | -   | -   | -   | 2.977    | 0.603 |
| HCM Control Delay (s) | 10.7  | -   | -   | -   | \$ 973.4 | 24.9  |
| HCM Lane LOS          | B     | -   | -   | -   | F        | C     |
| HCM 95th %tile Q(veh) | 0.6   | -   | -   | -   | 31.4     | 3.9   |

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

| Intersection             |       |      |      |      |      |      |
|--------------------------|-------|------|------|------|------|------|
| Int Delay, s/veh         | 165.3 |      |      |      |      |      |
| Movement                 | EBL   | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      | ↘     | ↗    | ↗    | ↘    | ↘    | ↘    |
| Traffic Vol, veh/h       | 301   | 734  | 786  | 376  | 328  | 265  |
| Future Vol, veh/h        | 301   | 734  | 786  | 376  | 328  | 265  |
| Conflicting Peds, #/hr   | 0     | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free  | Free | Free | Free | Stop | Stop |
| RT Channelized           | -     | None | -    | None | -    | None |
| Storage Length           | 250   | -    | -    | 250  | 0    | 0    |
| Veh in Median Storage, # | -     | 0    | 0    | -    | 1    | -    |
| Grade, %                 | -     | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92    | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2     | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 327   | 798  | 854  | 409  | 357  | 288  |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 1263   | 0      | -      | 0 | 2306 854    |
| Stage 1              | -      | -      | -      | - | 854 -       |
| Stage 2              | -      | -      | -      | - | 1452 -      |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 550    | -      | -      | - | ~42 358     |
| Stage 1              | -      | -      | -      | - | 417 -       |
| Stage 2              | -      | -      | -      | - | ~215 -      |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 550    | -      | -      | - | ~17 358     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | ~94 -       |
| Stage 1              | -      | -      | -      | - | ~169 -      |
| Stage 2              | -      | -      | -      | - | ~215 -      |













| Approach             | EB | WB | SB       |
|----------------------|----|----|----------|
| HCM Control Delay, s | 6  | 0  | \$ 767.2 |
| HCM LOS              |    |    | F        |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1     | SBLn2 |
|-----------------------|-------|-----|-----|-----|-----------|-------|
| Capacity (veh/h)      | 550   | -   | -   | -   | 94        | 358   |
| HCM Lane V/C Ratio    | 0.595 | -   | -   | -   | 3.793     | 0.805 |
| HCM Control Delay (s) | 20.7  | -   | -   | -   | \$ 1350.1 | 45.7  |
| HCM Lane LOS          | C     | -   | -   | -   | F         | E     |
| HCM 95th %tile Q(veh) | 3.9   | -   | -   | -   | 36.5      | 6.9   |

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
2: Round Lake Rd & Project Access B













Projected AM Peak Hour Signal

|                              |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|
| Movement                     | WBL   | WBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations          |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 189   | 94  | 200   | 365   | 183   | 270   |
| Future Volume (veh/h)        | 189   | 94  | 200   | 365   | 183   | 270   |
| Initial Q (Qb), veh          | 0   | 0   | 0   | 0   | 0   | 0   |
| Ped-Bike Adj(A_pbT)          | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Work Zone On Approach        | No  |   | No  |   |   | No  |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870  | 1870  | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 205   | 102   | 217   | 397   | 199   | 293   |
| Peak Hour Factor             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Percent Heavy Veh, %         | 2   | 2   | 2   | 2   | 2   | 2   |
| Cap, veh/h                   | 297   | 265   | 778   | 659   | 628   | 1169  |
| Arrive On Green              | 0.17  | 0.17  | 0.42  | 0.42  | 0.10  | 0.63  |
| Sat Flow, veh/h              | 1781  | 1585  | 1870  | 1585  | 1781  | 1870  |
| Grp Volume(v), veh/h         | 205   | 102   | 217   | 397   | 199   | 293   |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1585  | 1870  | 1585  | 1781  | 1870  |
| Q Serve(g_s), s              | 4.7   | 2.5   | 3.3   | 8.4   | 2.4   | 3.0   |
| Cycle Q Clear(g_c), s        | 4.7   | 2.5   | 3.3   | 8.4   | 2.4   | 3.0   |
| Prop In Lane                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Lane Grp Cap(c), veh/h       | 297   | 265   | 778   | 659   | 628   | 1169  |
| V/C Ratio(X)                 | 0.69  | 0.39  | 0.28  | 0.60  | 0.32  | 0.25  |
| Avail Cap(c_a), veh/h        | 741   | 659   | 778   | 659   | 647   | 1169  |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Upstream Filter(l)           | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Uniform Delay (d), s/veh     | 17.0  | 16.0  | 8.3   | 9.8   | 5.0   | 3.6   |
| Incr Delay (d2), s/veh       | 2.8   | 0.9   | 0.9   | 4.0   | 0.3   | 0.5   |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 1.9   | 0.8   | 1.0   | 2.6   | 0.4   | 0.5   |
| Unsig. Movement Delay, s/veh |   |   |   |   |   |   |
| LnGrp Delay(d),s/veh         | 19.8  | 17.0  | 9.2   | 13.9  | 5.3   | 4.1   |
| LnGrp LOS                    | B   | B   | A   | B   | A   | A   |
| Approach Vol, veh/h          | 307   |   | 614   |   |   | 492   |
| Approach Delay, s/veh        | 18.9  |   | 12.2  |   |   | 4.6   |
| Approach LOS                 | B   |   | B   |   |   | A   |
| Timer - Assigned Phs         | 1   | 2   |   |   | 6   | 8   |
| Phs Duration (G+Y+Rc), s     | 9.0   | 22.5  |   |   | 31.5  | 11.7  |
| Change Period (Y+Rc), s      | 4.5   | 4.5   |   |   | 4.5   | 4.5   |
| Max Green Setting (Gmax), s  | 5.0   | 18.0  |   |   | 18.0  | 18.0  |
| Max Q Clear Time (g_c+I1), s | 4.4   | 10.4  |   |   | 5.0   | 6.7   |
| Green Ext Time (p_c), s      | 0.0   | 1.6   |   |   | 1.2   | 0.7   |
| <b>Intersection Summary</b>  |   |   |   |   |   |   |
| HCM 6th Ctrl Delay           |   |   | 11.0  |   |   |   |
| HCM 6th LOS                  |   |   | B   |   |   |   |



HCM 6th Signalized Intersection Summary  
2: Round Lake Rd & Project Access B

Projected PM Peak Hour Signal

|                              |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|
| Movement                     | WBL   | WBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations          |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 451   | 226   | 307   | 394   | 197   | 329   |
| Future Volume (veh/h)        | 451   | 226   | 307   | 394   | 197   | 329   |
| Initial Q (Qb), veh          | 0   | 0   | 0   | 0   | 0   | 0   |
| Ped-Bike Adj(A_pbT)          | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Work Zone On Approach        | No  |   | No  |   |   | No  |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870  | 1870  | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 490   | 246   | 334   | 428   | 214   | 358   |
| Peak Hour Factor             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Percent Heavy Veh, %         | 2   | 2   | 2   | 2   | 2   | 2   |
| Cap, veh/h                   | 565   | 503   | 647   | 548   | 445   | 978   |
| Arrive On Green              | 0.32  | 0.32  | 0.35  | 0.35  | 0.10  | 0.52  |
| Sat Flow, veh/h              | 1781  | 1585  | 1870  | 1585  | 1781  | 1870  |
| Grp Volume(v), veh/h         | 490   | 246   | 334   | 428   | 214   | 358   |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1585  | 1870  | 1585  | 1781  | 1870  |
| Q Serve(g_s), s              | 14.6  | 7.1   | 8.0   | 13.6  | 4.0   | 6.4   |
| Cycle Q Clear(g_c), s        | 14.6  | 7.1   | 8.0   | 13.6  | 4.0   | 6.4   |
| Prop In Lane                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Lane Grp Cap(c), veh/h       | 565   | 503   | 647   | 548   | 445   | 978   |
| V/C Ratio(X)                 | 0.87  | 0.49  | 0.52  | 0.78  | 0.48  | 0.37  |
| Avail Cap(c_a), veh/h        | 679   | 604   | 647   | 548   | 445   | 978   |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Upstream Filter(l)           | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Uniform Delay (d), s/veh     | 18.1  | 15.6  | 14.7  | 16.5  | 10.0  | 7.9   |
| Incr Delay (d2), s/veh       | 10.0  | 0.7   | 2.9   | 10.6  | 0.8   | 1.1   |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 6.8   | 2.4   | 3.2   | 5.5   | 1.2   | 2.0   |
| Unsig. Movement Delay, s/veh |   |   |   |   |   |   |
| LnGrp Delay(d),s/veh         | 28.2  | 16.3  | 17.6  | 27.1  | 10.8  | 9.0   |
| LnGrp LOS                    | C   | B   | B   | C   | B   | A   |
| Approach Vol, veh/h          | 736   |   | 762   |   |   | 572   |
| Approach Delay, s/veh        | 24.2  |   | 22.9  |   |   | 9.7   |
| Approach LOS                 | C   |   | C   |   |   | A   |
| Timer - Assigned Phs         | 1   | 2   |   |   | 6   | 8   |
| Phs Duration (G+Y+Rc), s     | 10.0  | 24.0  |   |   | 34.0  | 22.4  |
| Change Period (Y+Rc), s      | 4.5   | 4.5   |   |   | 4.5   | 4.5   |
| Max Green Setting (Gmax), s  | 5.5   | 19.5  |   |   | 29.5  | 21.5  |
| Max Q Clear Time (g_c+I1), s | 6.0   | 15.6  |   |   | 8.4   | 16.6  |
| Green Ext Time (p_c), s      | 0.0   | 1.3   |   |   | 1.8   | 1.3   |
| <b>Intersection Summary</b>  |   |   |   |   |   |   |
| HCM 6th Ctrl Delay           |   |   | 19.7  |   |   |   |
| HCM 6th LOS                  |   |   | B   |   |   |   |

HCM 6th Signalized Intersection Summary  
 3: SR 46 & Project Access C

Projected AM Peak Hour Signal



| Movement                     | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |      |
|------------------------------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 126  | 479  | 646  | 157  | 304  | 243  |      |
| Future Volume (veh/h)        | 126  | 479  | 646  | 157  | 304  | 243  |      |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |      |
| Ped-Bike Adj(A_pbT)          | 1.00 |      |      | 1.00 | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      |
| Work Zone On Approach        |      | No   | No   |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |      |
| Adj Flow Rate, veh/h         | 137  | 521  | 702  | 171  | 330  | 264  |      |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |      |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |      |
| Cap, veh/h                   | 278  | 933  | 625  | 530  | 595  | 530  |      |
| Arrive On Green              | 0.08 | 0.50 | 0.33 | 0.33 | 0.33 | 0.33 |      |
| Sat Flow, veh/h              | 1781 | 1870 | 1870 | 1585 | 1781 | 1585 |      |
| Grp Volume(v), veh/h         | 137  | 521  | 702  | 171  | 330  | 264  |      |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1870 | 1585 | 1781 | 1585 |      |
| Q Serve(g_s), s              | 2.5  | 10.4 | 18.0 | 4.3  | 8.2  | 7.2  |      |
| Cycle Q Clear(g_c), s        | 2.5  | 10.4 | 18.0 | 4.3  | 8.2  | 7.2  |      |
| Prop In Lane                 | 1.00 |      |      | 1.00 | 1.00 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 278  | 933  | 625  | 530  | 595  | 530  |      |
| V/C Ratio(X)                 | 0.49 | 0.56 | 1.12 | 0.32 | 0.55 | 0.50 |      |
| Avail Cap(c_a), veh/h        | 299  | 933  | 625  | 530  | 595  | 530  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      |
| Uniform Delay (d), s/veh     | 12.5 | 9.4  | 17.9 | 13.4 | 14.7 | 14.3 |      |
| Incr Delay (d2), s/veh       | 1.4  | 0.7  | 74.8 | 0.3  | 3.7  | 3.3  |      |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |      |
| %ile BackOfQ(50%),veh/ln     | 0.8  | 3.0  | 19.0 | 1.3  | 3.5  | 7.1  |      |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 13.8 | 10.1 | 92.7 | 13.7 | 18.3 | 17.6 |      |
| LnGrp LOS                    | B    | B    | F    | B    | B    | B    |      |
| Approach Vol, veh/h          |      | 658  | 873  |      | 594  |      |      |
| Approach Delay, s/veh        |      | 10.9 | 77.3 |      | 18.0 |      |      |
| Approach LOS                 |      | B    | E    |      | B    |      |      |
| Timer - Assigned Phs         |      |      |      | 4    | 6    | 7    | 8    |
| Phs Duration (G+Y+Rc), s     |      |      |      | 31.4 | 22.5 | 8.9  | 22.5 |
| Change Period (Y+Rc), s      |      |      |      | 4.5  | 4.5  | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      |      |      | 18.0 | 18.0 | 5.0  | 18.0 |
| Max Q Clear Time (g_c+I1), s |      |      |      | 12.4 | 10.2 | 4.5  | 20.0 |
| Green Ext Time (p_c), s      |      |      |      | 1.4  | 1.3  | 0.0  | 0.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 40.2 |      |      |      |      |
| HCM 6th LOS                  |      |      | D    |      |      |      |      |

HCM 6th Signalized Intersection Summary  
3: SR 46 & Project Access C

Projected PM Peak Hour Signal



| Movement                     | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |      |
|------------------------------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 301  | 734  | 786  | 376  | 328  | 263  |      |
| Future Volume (veh/h)        | 301  | 734  | 786  | 376  | 328  | 263  |      |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |      |
| Ped-Bike Adj(A_pbT)          | 1.00 |      |      | 1.00 | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      |
| Work Zone On Approach        |      | No   | No   |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |      |
| Adj Flow Rate, veh/h         | 327  | 798  | 854  | 409  | 357  | 286  |      |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |      |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |      |
| Cap, veh/h                   | 348  | 1244 | 882  | 747  | 418  | 372  |      |
| Arrive On Green              | 0.14 | 0.66 | 0.47 | 0.47 | 0.23 | 0.23 |      |
| Sat Flow, veh/h              | 1781 | 1870 | 1870 | 1585 | 1781 | 1585 |      |
| Grp Volume(v), veh/h         | 327  | 798  | 854  | 409  | 357  | 286  |      |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1870 | 1585 | 1781 | 1585 |      |
| Q Serve(g_s), s              | 11.6 | 22.4 | 39.9 | 16.5 | 17.2 | 15.1 |      |
| Cycle Q Clear(g_c), s        | 11.6 | 22.4 | 39.9 | 16.5 | 17.2 | 15.1 |      |
| Prop In Lane                 | 1.00 |      |      | 1.00 | 1.00 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 348  | 1244 | 882  | 747  | 418  | 372  |      |
| V/C Ratio(X)                 | 0.94 | 0.64 | 0.97 | 0.55 | 0.85 | 0.77 |      |
| Avail Cap(c_a), veh/h        | 348  | 1247 | 885  | 750  | 418  | 372  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      |
| Uniform Delay (d), s/veh     | 27.1 | 8.8  | 23.1 | 16.9 | 32.9 | 32.1 |      |
| Incr Delay (d2), s/veh       | 33.1 | 1.1  | 22.8 | 0.8  | 19.4 | 14.1 |      |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |      |
| %ile BackOfQ(50%),veh/ln     | 10.1 | 8.0  | 21.8 | 5.9  | 9.5  | 1.5  |      |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 60.2 | 9.9  | 45.9 | 17.8 | 52.3 | 46.2 |      |
| LnGrp LOS                    | E    | A    | D    | B    | D    | D    |      |
| Approach Vol, veh/h          |      | 1125 | 1263 |      | 643  |      |      |
| Approach Delay, s/veh        |      | 24.5 | 36.8 |      | 49.6 |      |      |
| Approach LOS                 |      | C    | D    |      | D    |      |      |
| Timer - Assigned Phs         |      |      |      | 4    | 6    | 7    | 8    |
| Phs Duration (G+Y+Rc), s     |      |      |      | 64.2 | 25.6 | 17.4 | 46.8 |
| Change Period (Y+Rc), s      |      |      |      | 4.5  | 4.5  | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      |      |      | 59.9 | 21.1 | 12.9 | 42.5 |
| Max Q Clear Time (g_c+I1), s |      |      |      | 24.4 | 19.2 | 13.6 | 41.9 |
| Green Ext Time (p_c), s      |      |      |      | 7.1  | 0.5  | 0.0  | 0.4  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 35.0 |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |

# TRAFFIC SIGNAL WARRANT SUMMARY

City: **Mt. Dora**  
County: **11 – Lake**  
District: **Five**

Engineer: **TMC**  
Date: **October 25, 2023**

Major Street: **SR 46** Lanes: **2** Major Approach Speed: **45**  
Minor Street: **Project Access C** Lanes: **2** Minor Approach Speed: **30**

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

### Volume Level Criteria

- Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)?  Yes  No
  - Is the intersection in a built-up area of an isolated community with a population < 10,000?  Yes  No
- "70%" volume level may be used if Question 1 or 2 above is answered "Yes"  Yes  No

### WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

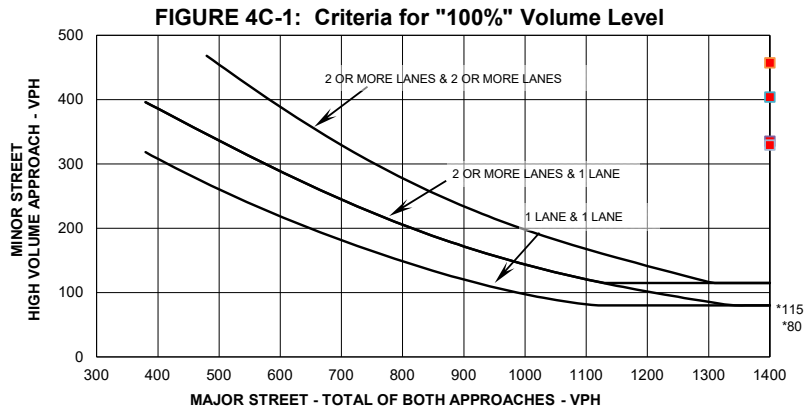
If all four points lie above the applicable line, then the warrant is satisfied.

Applicable:  Yes  No  
Satisfied:  Yes  No

Plot four volume combinations on the applicable figure below.

#### 100% Volume Level

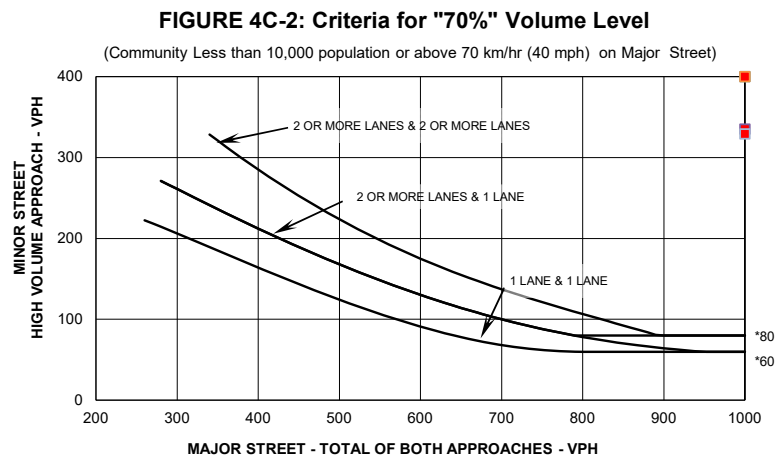
| Four Highest Hours | Volumes      |              |
|--------------------|--------------|--------------|
|                    | Major Street | Minor Street |
| 3:00 PM            | 1669         | 335          |
| 4:00 PM            | 1871         | 404          |
| 5:00 PM            | 2188         | 457          |
| 6:00 PM            | 1732         | 329          |



\* Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

#### 70% Volume Level

| Four Highest Hours | Volumes      |              |
|--------------------|--------------|--------------|
|                    | Major Street | Minor Street |
| 3:00 PM            | 1669         | 335          |
| 4:00 PM            | 1871         | 404          |
| 5:00 PM            | 2188         | 457          |
| 6:00 PM            | 1732         | 329          |



\* Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume threshold for a minor street approach with one lane.