# Tighe&Bond

15-0173-002A July 19, 2021

Mr. Samuel B. Fuller FDSPIN 141 DR, LLC 1 North Water Street, Suite 100 South Norwalk, CT 06854

### Re: Traffic Impact Statement 141 Danbury Road (U.S. Route 7) Redevelopment Wilton, Connecticut

Dear Mr. Fuller:

Tighe & Bond has prepared this traffic statement to review the potential traffic impact of the proposed redevelopment of the existing commercial property at 141 Danbury Road (U.S. Route 7) in Wilton into a 173 unit multi-family residential development. This traffic statement is provided in support of the Town of Wilton regulatory process. The resulting analysis shows that the proposed development traffic will not have a significant impact to traffic operations on Danbury Road.

## **Existing Conditions**

The 141 Danbury Road site, shown in Figure 1, contains 47,040 square feet of commercial building surrounded by 229 surface parking spaces. The site is located approximately 700 feet south of the signalized intersection of Danbury Road and its south junction with State Route 33 (Westport Road). Access to the existing site is via a full access driveway on Danbury Road, which is stop controlled on the exiting approach. The existing site driveway is approximately 24 feet wide accommodating one entering and one exiting lane.

Danbury Road, designated as U.S. Route 7, is classified as an urban principal arterial by the Connecticut Department of Transportation (CTDOT). Danbury Road runs north to south and connects Wilton to the Town of Ridgefield to the north and the City of Norwalk to the south. Along the site frontage, the roadway is approximately 35 to 46 feet wide with two, 11 foot northbound travel lanes, one southbound travel lane, and 2 to 4 foot shoulders in each direction. No sidewalks are provided along the site frontage or on adjacent properties. The posted speed limit on Danbury Road is 40 miles per hour (mph) in the vicinity of the site. Danbury Road provides access to residential, office, and commercial uses near the site.

A review of CTDOT automatic traffic recorder (ATR) counts shows that Danbury Road, south of Route 33, carried approximately 26,700, 27,900, 25,300, and 18,500 vehicles per day in 2011, 2014, 2017 and 2020, respectively. It should be noted that the traffic counts in 2020 was collected in June 2020, during COVID-19 pandemic, and therefore traffic volumes were significantly lower than those collected during previous years. Further detail on the existing traffic volumes in the area is provided in the Existing Traffic Volumes section.

### **Development Plan**

The proposed development will redevelop the 141 Danbury Road site, removing the existing 47,040 square foot general office building and replacing it with a multi-family residential building containing 173 residential units. The site driveway will remain close to the existing location and be widened to provide one entering lane, a median island, and two exiting lanes with a dedicated left-turn and dedicated right-turn lane. A total of 313 parking spaces including 18 accessible spaces will be provided on site via surface parking on all sides of the

building and parking below the building. Provided CTDOT approves, a sidewalk will be provided along the site frontage including a bus waiting area on the north side of the driveway. It is anticipated that the proposed development will be constructed and occupied by the end of 2023.

# **Existing Traffic Volumes**

Based on the location of the site, existing traffic patterns, and expected limited increase in site-generated trips, the study area includes the site driveway intersection with Danbury Road. The study analyses focus on the weekday morning and weekday afternoon peak hours, the periods when residential and/or commuter related trips, and overall traffic volumes on Danbury Road are at their highest levels.

Given the on-going impact of COVID-19 restrictions and remote working on traffic volumes, the baseline peak hour through traffic volumes for Danbury Road in the vicinity of the site were developed based on the 2017 CTDOT ATR counts on Danbury Road south of Route 33. The 2017 volumes were projected based on a 0.6% annual growth rate to 2021, a conservative estimate that assumes a significant rebound of traffic volumes by the end of 2021. The directional split of traffic volumes on Danbury Road was estimated based on the CTDOT ATR counts collected in 2011 and 2020, which collected directional, hourly traffic volumes. The ATR data showed approximately 40% northbound and 60% southbound traffic during the weekday morning peak period, and the inverse of 60% northbound and 40% southbound during the weekday afternoon peak period. The raw CTDOT ATR data is included in Appendix A.

Due to the impacts of the pandemic, traffic counts could not be reliably conducted, therefore, in order to develop the traffic turning movement volumes at the site driveway intersection with Danbury Road under 2021 Existing Conditions, the site traffic that may be generated by the existing 47,040 square foot general office building, at full occupancy, was estimated based on data published in the Institute of Transportation Engineers (ITE) publication, Trip Generation, 10<sup>th</sup> edition, 2017. The site-generated weekday morning and weekday afternoon peak hour trips were estimated using ITE Land Use Code 710, General Office Building. Based on the published data, the existing 47,040 square foot general office building is expected to generate approximately 55 trips (47 entering, 8 exiting) during the weekday morning peak hour and 56 trips (9 entering, 47 exiting) during the weekday afternoon peak hour. Table 1 provides a summary of the trip generation for the existing site. The existing site-generated traffic was distributed to the site driveway based on U.S. Census journey to work data and existing travel patterns and was then added to the 2021 Existing Condition volumes of through traffic on Danbury Road, resulting in the 2021 Existing Condition weekday morning and afternoon peak hour traffic volumes shown in Figure 2.

The 2021 Existing Condition traffic volumes and the site-generated trips of the existing general office use were reviewed and approved by CTDOT Bureau of Policy and Planning in April 2021, as shown in the documentation included in Appendix B.

# **Background Traffic Volumes**

To develop the traffic volumes for the 2023 Background Condition, when the proposed development is expected to be completed, the 2021 Existing Traffic volumes were grown by 0.6% per year to represent the general growth of traffic volume on the local roadway network. This growth rate was estimated based upon consultation with CTDOT Bureau of Policy and Planning as shown in the attached Appendix B.

CTDOT and the Town of Wilton Planning and Zoning Department records were also reviewed to determine if any additional pending or recently approved developments may add new traffic through the study area in the near future. No additional developments were identified within this review and the annual traffic growth rate was considered sufficient to project the 2021 existing volumes to 2023. The resulting 2023 Background Conditions traffic volumes for the weekday morning and weekday afternoon peak hours are presented in Figure 3.

# **Intersection Sight Distance**

Intersection sight distance was reviewed at the site driveway intersection with Danbury Road in accordance with criteria set forth in the 2003 CTDOT Highway Design Manual (including revisions to June 2020).

Vehicle travel speed data was collected on Danbury Road as part of the CTDOT ATR counts in 2020. The data, included in Appendix A, showed that the 85<sup>th</sup> percentile speed, also known as the operating speed, of Danbury Road is 46 mph and 43 mph travelling northbound and southbound, respectively.

Based on the operating speeds, the minimum required sight distances for two northbound travel lanes and one southbound travel lane undivided roadway are 542 feet looking right (south) and 478 feet looking left (north). The site driveway provides sight distances looking in both directions that exceed the minimum intersection sight distance criteria published by CTDOT.

# **Collision History**

Vehicle collision history for Danbury Road along the site frontage was collected from the Connecticut Crash Data Repository between January 2017 and May 2021 to include three years of data prior to the start of the COVID-19 pandemic. Table 2 provides a summary of the collisions by collision type and severity.

A total of seven collisions occurred on Danbury Road along the site frontage during the time period analyzed. Five rear-end and two angle collisions were reported, all of which resulted in minor injuries and/or property damage only. No pedestrian or bicycle collisions were recorded in vicinity of the site during the time period analyzed.

# **Trip Generation**

Similar to the methodology utilized to establish the Existing Condition traffic volumes, sitegenerated traffic for the proposed residential development was estimated based on data published in the Institute of Transportation Engineers (ITE) publication, Trip Generation, 10<sup>th</sup> edition, 2017. The site-generated trips were estimated using ITE Land Use Code 221, Multifamily Housing (Mid-Rise). Based on the published data, the proposed 173 residential units are expected to generate 62 vehicle trips (16 entering, 46 exiting) during the weekday morning peak hour and 76 vehicle trips (46 entering, 30 exiting) during the weekday afternoon peak hour. Table 1 provides a summary of the site-generated traffic.

As mentioned, the existing commercial use on the site will be replaced by the proposed residential units. Therefore, the existing site-generated trips were subtracted from the proposed site-generated trips to obtain the net trips associated with the change in land use, above those already on the roadway network. Comparing the existing and proposed site-generated traffic estimates, the proposed development is expected to generate 7 additional trips (-31 entering, +38 exiting) during weekday morning peak hour and 20 additional trips (+37 Entering, -17 exiting) during weekday afternoon peak hour.

# **Traffic Distribution & Combined Traffic Volumes**

The proposed site-generated traffic was distributed to the roadway network based on existing travel patterns and U.S. census journey-to-work data. The data indicates a distribution of 40% to/from the north and 60% to/from the south of the site. The resulting, distributed site-generated traffic for the weekday morning and afternoon peak hours are presented in Figure 4.

The site-generated traffic volumes were then added to the 2023 Background Condition traffic volumes, replacing the existing site-generated traffic volumes, and resulting in the 2023 Combined Condition traffic volumes presented in Figure 5.

# **Traffic Operations**

Capacity and queue analyses were performed for the study intersections for the 2021 Existing Condition, 2023 Background Condition, and 2023 Combined Condition traffic volumes during the weekday morning and weekday afternoon peak hours using Trafficware Synchro Studio 10 – Traffic Analysis Software. The software conducts the analyses based upon the methodology provided in the *Highway Capacity Manual (HCM), 6<sup>th</sup> Edition*. The analysis results are categorized in terms of Level of Service (LOS), which describes the intersection operational conditions based on the calculated average delay per vehicle. The queue analysis results are summarized based upon the 95<sup>th</sup> percentile queues (design queues) on an intersection approach for unsignalized intersections. For discussion purposes, queues will be summarized in terms of car lengths, which are approximately 25 feet. A summary of the HCM capacity analysis methodology is included in Appendix C. Tables 3 and 4 summarize the capacity analysis results for LOS and queues, respectively. The capacity analysis worksheets showing the full capacity analysis results are enclosed in Appendix D.

As shown in Table 3 and 4, under 2021 Existing and 2023 Background Conditions, vehicles entering the site driveway operate efficiently at LOS B for left turns and no control delay for right turns (free flow), while the exiting movements experience LOS F delays during the peak hours. It is common for stop controlled driveway approaches to experience poor LOS and longer delay at the intersections on three or four lane principal arterial roadways such as Danbury Road due to the heavy volume of through traffic. The entering left turn is expected to have a queue of less than 1 vehicle, while the existing movements queues are 1 vehicle in the weekday morning and just 2-3 vehicles during the weekday afternoon peak hour.

As mentioned previously, the development proposes to widen the existing site driveway for an additional exiting lane to provide one dedicated left-turn lane and one dedicated right-turn lane exiting the site. The separation of left-turn lane and right-turn lane exiting the site will improve the traffic operation and reduce vehicle delays and queues particularly for the rightturn movements. Under 2023 Combined Conditions, vehicles entering the site driveway will continue to operate at the same LOS B as under 2021 Existing and 2023 Background conditions during the peak hours. The right-turn exiting movements experience an improvement to LOS E and C delays in the morning and afternoon peak hours respectively, while the left-turn exiting movements continue to operate at LOS F as they had in Existing and Background Conditions due to the high volume of through traffic on Danbury Road. A review of the queue analysis shows that all movements will have queues of less than two vehicles during the peak hours under 2023 Combined Conditions. The site driveway has sufficient storage to accommodate expected queues.



### Conclusion

Based on the results of the analyses, it is the professional opinion of Tighe & Bond that the additional traffic volume generated by the proposed residential redevelopment is not expected to impact traffic operations along Danbury Road (U.S. Route 7).

Sincerely,

#### **TIGHE & BOND, INC.**

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Craig D. Yannes, PE, PTOE, RSP1 Project Manager

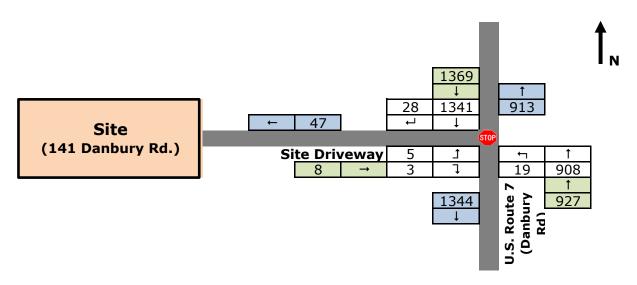
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John W. Block, PE, L.S. Senior Vice President

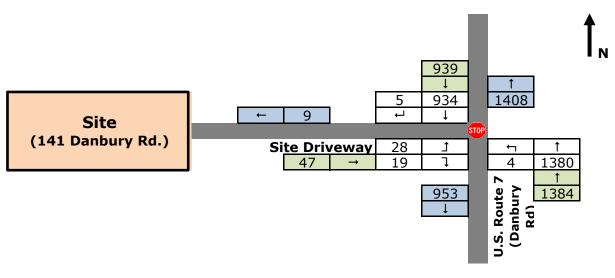
Attachments: Figure 1 – Site Location Map Figure 2 to 5 – Traffic Volume Figures Table 1 – Trip Generation Summary Table 2 – Collision History Summary Table 3 – Level of Service Summary Table 4 – 95<sup>th</sup> Percentile Queue Summary Appendix A – CTDOT ATR Traffic Data Appendix B – CTDOT Traffic Volume Approval Appendix C – Capacity Analysis Methodology Appendix D – Capacity Analysis Worksheets

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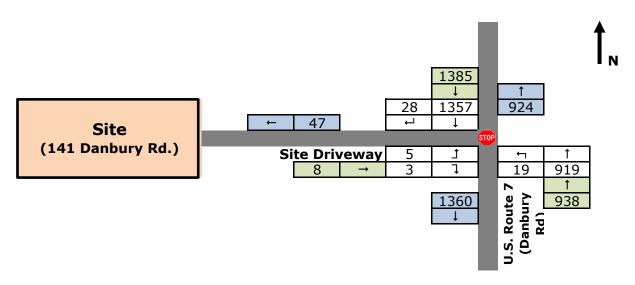




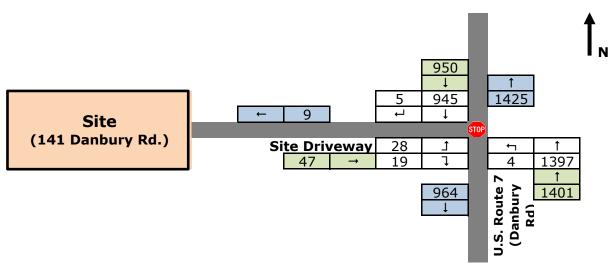




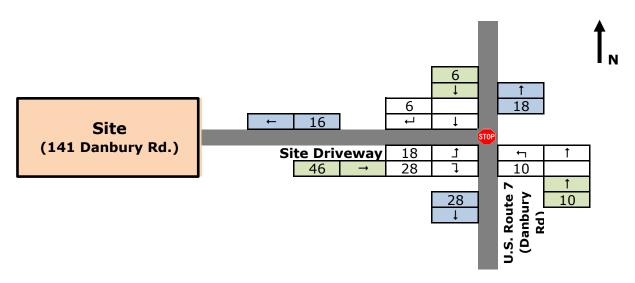
2021 Existing Traffic Volumes 141 Danbury Road Wilton, CT



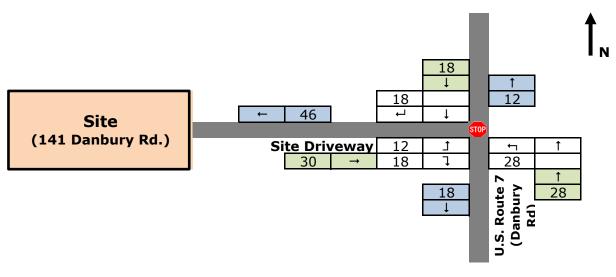




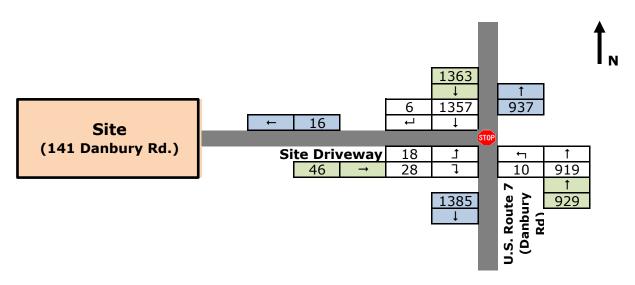
2023 Background Traffic Volumes 141 Danbury Road Wilton, CT



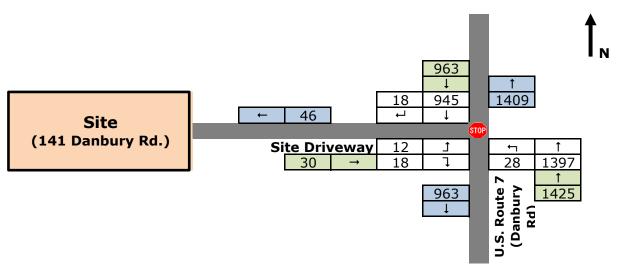




Site-Generated Traffic Volumes 141 Danbury Road Wilton, CT







2023 Combined Traffic Volumes 141 Danbury Road Wilton, CT

#### TABLE 1

Proposed Site-Generated Traffic Summary

| Proposed - 173 Residential Un                    | nits                       |      |       |
|--|----------------------------|------|-------|
| Peak Hour Period                                 | Enter                      | Exit | Total |
| Weekday Morning                                  | 16                         | 46   | 62    |
| Weekday Afternoon                                | 46                         | 30   | 76    |
| Previously Approved - 47,040<br>Peak Hour Period | SF Commercial Use<br>Enter | Exit | Total |
| Weekday Morning                                  | 47                         | 8    | 55    |
| Weekday Afternoon                                | 9                          | 47   | 56    |
| Net Vehicle Trips                                |                            |      |       |
| Peak Hour Period                                 | Enter                      | Exit | Total |
| Weekday Morning                                  | -31                        | 38   | 7     |
| Weekday Afternoon                                | 37                         | -17  | 20    |

Source: Institute of Transportation Engineering, Trip Generation, 10th Edition, 2017. Land Use - 221 Multifamily Housing (Mid-Rise) Land Use - 710 General Office Building

#### TABLE 2 Collision History Summary Intersection: Danbury Road (U.S. Route 7) at 141 Danbury Road Site Driveway

#### COLLISION TYPE

|   | 2017 | 2018 | 2019 | 2020 | 2021 | Total | Percent |
|---|------|------|------|------|------|-------|---------|
| Rear-End                                  | 2    | 1    | 1    | 1    | 0    | 5     | 71.4%   |
| Angle                                     | 0    | 0    | 2    | 0    | 0    | 2     | 28.6%   |
| TOTAL                                     | 2    | 1    | 3    | 1    | 0    | 7     | 100%    |
| SEVERITY                                  |      |      |      |      |      |       |         |
|   | 2017 | 2018 | 2019 | 2020 | 2021 | Total | Percent |
| Fatal                                     | 0    | 0    | 0    | 0    | 0    | 0     | 0.0%    |
| Serious Injury                            | 0    | 0    | 0    | 0    | 0    | 0     | 0.0%    |
| Minor Injury / Property Damage Only (PDO) | 2    | 1    | 3    | 1    | 0    | 7     | 100.0%  |
| TOTAL                                     | 2    | 1    | 3    | 1    | 0    | 7     | 100%    |

# **TABLE 3** Intersection Operation Summary - Vehicular Levels of Service / Average Delay (sec/veh)

|  |                               | Weekda                            | ay Morning Pe                                     | eak Hour                             | Weekday Afternoon Peak Hour     |                     |                     |  |  |  |  |
|--|-------------------------------|-----------------------------------|---|--------------------------------------|---------------------------------|---------------------|---------------------|--|--|--|--|
|  | Lane<br>Use                   | 2021<br>Existing                  | 2023<br>Background                                | 2023<br>Combined                     | 2021<br>Existing                | 2023<br>Background  | 2023<br>Combined    |  |  |  |  |
|  |                               |                                   |   |                                      |                                 |                     |                     |  |  |  |  |
| Unsignalized TWSC - Danbu                                |                               |                                   |   |                                      |                                 | D / 10 C            | <b>D</b> ( 10.0     |  |  |  |  |
| Unsignalized TWSC - Danbu<br>Danbury Road (U.S. Route 7) | n <b>y Road</b><br>NBL<br>NBT | (U.S. Rout<br>B / 13.7<br>A / 0.7 | <mark>e 7) at 141 D</mark><br>B / 13.9<br>A / 0.7 | anbury Road I<br>B / 13.5<br>A / 0.4 | Driveway<br>B / 10.5<br>A / 0.2 | B / 10.6<br>A / 0.2 | B / 10.9<br>A / 1.6 |  |  |  |  |

### TABLE 4

Intersection Operation Summary - Vehicular 50<sup>th</sup> / 95<sup>th</sup> Percentile Queue (In Feet)

|  |                       |                               | Weekda                         | ay Morning Pe          | ak Hour                | Weekda           | y Afternoon I      | Peak Hour          |
|--|-----------------------|-------------------------------|--------------------------------|------------------------|------------------------|------------------|--------------------|--------------------|
|  | Lane<br>Use           | Available<br>Storage          | 2021<br>Existing               | 2023<br>Background     | 2023<br>Combined       | 2021<br>Existing | 2023<br>Background | 2023<br>I Combined |
|  |                       |                               |                                |                        |                        |                  |                    |                    |
| Unsignalized TWSC - Danbu                                |                       |                               | e 7) at 141                    | Danbury Roa            | d Driveway             |                  |                    |                    |
| Unsignalized TWSC - Danbu<br>Danbury Road (U.S. Route 7) | <b>iry Roa</b><br>NBL | i <b>d (U.S. Rout</b><br>>500 | <b>:e 7) at 141</b><br>3       | Danbury Roa            | <b>d Driveway</b><br>3 | 0                | 0                  | 3                  |
| <u> </u>   |                       |                               | <b>:e 7) at 141</b><br>3<br>10 | Danbury Roa<br>5<br>10 | d Driveway<br>3<br>    | 0<br>53          | 0<br>55            | 3                  |
| <u> </u>   | NBL                   | >500                          | 3                              | 5                      | 3                      | 0<br>53<br>      | 0<br>55<br>        | 3<br><br>23        |

# APPENDIX A CTDOT ATR Traffic Counts

| Status: OK | North | Combined | South | Class | Speed |
|------------|-------|----------|-------|-------|-------|
|------------|-------|----------|-------|-------|-------|

WILT-179 - Combined - n/s

| Collected during COVID-19 epoch | 29-Jun<br>Mon  | 30-Jun<br>Tue   | 01-Jul<br>Wed   |
|---------------------------------|--|---|---|
| Town                            | 2:00am<br>1:00am<br>2:00am<br>2:00am<br>3:00am<br>4:00am<br>5:00am<br>6:00am<br>7:00am<br>8:00am<br>9:00am<br>1261<br>1:00am<br>1267<br>2:00pm<br>1372<br>1:00pm<br>1434<br>2:00pm<br>1524<br>4:00pm<br>1524<br>4:00pm<br>1525<br>6:00pm<br>1525<br>6:00pm<br>1717<br>7:00pm<br>797<br>8:00pm<br>522<br>9:00pm<br>346<br>0:00pm<br>155 | 87<br>33<br>40<br>42<br>80<br>524<br>936<br>1215<br>1361<br>1282<br>1282<br>1308<br>1446<br>1420<br>1444<br>1487<br>1471<br>1461<br>1160<br>853<br>611<br>383<br>316<br>186 | 75<br>28<br>33<br>42<br>85<br>477<br>898<br>1252<br>1348<br>1292<br>x |
| Tc                              | otals 14591  | 20428   | 5530  |

| Status: OK | North | Combined | South | Class | Speed |
|------------|-------|----------|-------|-------|-------|
|------------|-------|----------|-------|-------|-------|

#### WILT-179 - North

| Collected during COVID-19 epoch | 29-Jun<br>Mon   | 30-Jun<br>Tue   | 01-Jul<br>Wed  |
|---------------------------------|---|---|--|
| Town                            | 2:00am         1:00am         2:00am         3:00am         4:00am         5:00am         6:00am         7:00am         8:00am         9:00am         74         1:00pm         774         3:00pm         813         4:00pm         839         5:00pm         847         6:00pm         683         7:00pm         456         8:00pm         274         9:00pm         155         0:00pm         131         1:00pm | 53<br>16<br>23<br>28<br>24<br>135<br>330<br>531<br>586<br>553 | 45<br>20<br>20<br>22<br>32<br>121<br>303<br>496<br>566<br>567<br>x |
| Тс                              | otals 7641  | 10051   | 2192   |

| Status: OK | North | Combined | South | Class | Speed |
|------------|-------|----------|-------|-------|-------|
|------------|-------|----------|-------|-------|-------|

#### WILT-179 - South

| Collected during COVID-19 epoch |  | 29-Jun<br>Mon | 30-Jun<br>Tue   | 01-Jul<br>Wed  |
|---------------------------------|--|---------------|---|--|
| Town                            | 12:00am<br>01:00am<br>02:00am<br>03:00am<br>04:00am<br>05:00am<br>07:00am<br>07:00am<br>10:00am<br>11:00am<br>11:00am<br>12:00pm<br>02:00pm<br>03:00pm<br>03:00pm<br>05:00pm<br>07:00pm<br>07:00pm<br>08:00pm<br>10:00pm | Mon           | Tue<br>34<br>17<br>14<br>56<br>389<br>606<br>684<br>775<br>729<br>656<br>699<br>721<br>689<br>714<br>699<br>648<br>611<br>488<br>397<br>303<br>191<br>155<br>85 | wed<br>30<br>8<br>13<br>20<br>53<br>356<br>595<br>756<br>782<br>725<br>x |
|                                 | 11:00pm<br>Totals  | 6950          | 10377   | 3338   |

#### WILT-179 - Combined - n/s

| WILT-179 - Combined - n/s   | nouce ,  | 5.5                              | U IIII                                | bouch  | . 01 1.0  | ace 55   | (0 000  | -1  |   |   |   |   |                                       |              |            |
|---|--|----------------------------------|---------------------------------------|--|---|--|---|---|---|---|---|---|---------------------------------------|--------------|------------|
| Collected during COVID-19 epoch   | Hour   | MPH<br>0-15                      | MPH<br>16-20                          | MPH<br>21-25   | MPH<br>26-30  | MPH<br>31-35   | MPH<br>36-40  | MPH<br>41-45  | MPH<br>46-50  | MPH<br>51-55  | MPH<br>56-60                              | MPH<br>61-65  | MPH<br>66-60                          | MPH<br>71-75 | MPI<br>76- |
| Town  | Monday<br>29-Jun<br>12:00am<br>01:00am<br>02:00am<br>03:00am   | 0 10                             | 10 20                                 |  | 20 00   | 51 55  |   |   | 10 00   | 01 00   |   | 01 00   |                                       |              | , ,        |
| All Vehicles Average Speed  | 04:00am<br>05:00am<br>06:00am<br>07:00am<br>08:00am<br>09:00am<br>10:00am                                  | х<br>3                           | ×<br>11                               | x<br>13  | ×<br>50   | x<br>239   | x<br>477  | x<br>352  | x<br>96   | x<br>19   | x<br>1                                    | x   | x                                     | x            | 2          |
| All Report Days           85th Percentile Speed   | 11:00am<br>12:00pm<br>01:00pm<br>02:00pm<br>03:00pm<br>05:00pm<br>06:00pm<br>07:00pm<br>08:00pm<br>09:00pm | 11<br>4<br>3<br>2<br>3<br>1<br>2 | 20<br>6<br>7<br>3<br>5<br>1<br>1<br>1 | 8<br>25<br>22<br>5<br>18<br>8<br>2<br>2<br>2<br>2<br>1 | 46<br>93<br>70<br>29<br>30<br>49<br>53<br>4<br>5<br>8<br>10 | 211<br>234<br>269<br>229<br>262<br>219<br>222<br>106<br>50<br>55<br>45 | 487<br>507<br>489<br>494<br>528<br>567<br>525<br>406<br>266<br>190<br>120 | 409<br>394<br>453<br>500<br>509<br>493<br>529<br>485<br>343<br>196<br>125 | 89<br>72<br>100<br>137<br>142<br>138<br>148<br>133<br>114<br>57<br>36 | 16<br>15<br>18<br>30<br>41<br>28<br>33<br>29<br>16<br>12<br>6 | 1<br>1<br>5<br>2<br>4<br>5<br>3<br>1      | ·<br>2<br>1<br>·<br>·<br>·  | ·<br>·<br>·<br>·                      |              |            |
| Monday 29-Jun-2020           85th Percentile Speed  | 10:00pm<br>11:00pm<br>Totals<br>Percent<br>Tuesday<br>30-Jun   | 29<br>0.20                       | 56<br>0.38                            | 111<br>0.76  | 1<br>2<br>450<br>3.08                                       | 18<br>9<br>2168<br>14.86   | 82<br>51<br>5189<br>35.56   | 105<br>59<br>4952   | 36<br>21<br>1319<br>9.04  | 9<br>13<br>285<br>1.95  | 1<br>28<br>0.19                           | 1<br>4<br>0.03  | 0<br>0.00                             | 0<br>0.00    | (<br>0.0(  |
| Omitted Vehicles Too Slow ( 0%)17           Sampled Vehicles (26%)2116 <u>Tuesday 30-Jun-2020</u> 85th Percentile Speed | 12:00am<br>01:00am<br>02:00am<br>03:00am<br>04:00am<br>05:00am<br>06:00am<br>07:00am                       | 1<br>1                           | 1                                     | 1<br>5<br>19   | 1   | 9<br>3<br>5<br>2<br>23<br>79<br>205                                    | 22<br>8<br>12<br>10<br>30<br>126<br>300<br>395                            | 39<br>13<br>17<br>21<br>36<br>265<br>361<br>388                           | 8<br>6<br>3<br>4<br>9<br>78<br>125<br>107                             | 5<br>1<br>1<br>1<br>17<br>43<br>37                            | 1<br>2<br>7<br>6                          | ·<br>·<br>·<br>·  | 2                                     | 1            |            |
| All Hours Total Vehicles  | 08:00am<br>09:00am<br>10:00am<br>11:00am<br>12:00pm<br>01:00pm   | 2<br>3<br>8<br>2<br>2            | 1<br>9<br>6<br>5<br>8<br>3            | 19<br>12<br>19<br>18<br>32<br>37<br>4                  | 87<br>77<br>71<br>101<br>90<br>51                           | 203<br>314<br>250<br>286<br>275<br>313<br>336                          | 595<br>504<br>479<br>450<br>479<br>500<br>540                             | 341<br>346<br>351<br>317<br>408<br>404                                    | 77<br>77<br>74<br>82<br>78<br>68                                      | 19<br>21<br>16<br>12<br>10<br>14                              | 4<br>1<br>2<br>2                          | 2<br>1  | ·<br>·<br>·<br>·                      |              |            |
| 85th Percentile Speed   | 02:00pm<br>03:00pm<br>04:00pm<br>05:00pm<br>06:00pm<br>07:00pm<br>08:00pm<br>10:00pm<br>11:00pm            | 4<br>3<br>1<br>•<br>•<br>•<br>•  | 12<br>4<br>2<br>1<br>2<br>1           | 23<br>19<br>24<br>8<br>6<br>1<br>2<br>1                | 79<br>80<br>55<br>37<br>23<br>3<br>3<br>8<br>1              | 262<br>250<br>207<br>238<br>142<br>51<br>55<br>46<br>21<br>13          | 441<br>509<br>464<br>473<br>382<br>264<br>210<br>117<br>101<br>52         | 451<br>488<br>547<br>529<br>457<br>368<br>239<br>159<br>136<br>79         | 138<br>103<br>138<br>144<br>118<br>129<br>78<br>42<br>48<br>30        | 28<br>29<br>31<br>23<br>26<br>27<br>20<br>9<br>6<br>10        | 5<br>2<br>8<br>4<br>8<br>2<br>1<br>2<br>2 | 1   | · · · · · · · · · · · · · · · · · · · |              |            |
|   | Totals<br>Percent<br>Wednesda<br>01-Jul<br>12:00am   |                                  | 68<br>0.33                            | 231<br>1.13  | 839<br>4.11<br>1  |  |   | 6760<br>33.09<br>23   |   | 407<br>1.99<br>3  | 61<br>0.30                                | 8<br>0.04<br>1  | 2<br>0.01                             | 1<br>0.00    | (<br>0.0(  |
|   | 01:00am<br>02:00am<br>03:00am<br>04:00am<br>05:00am<br>06:00am<br>07:00am<br>08:00am<br>09:00am            |                                  | 1<br>1<br>5<br>4<br>42<br>x           | 1<br>1<br>1<br>17<br>12<br>25<br>x                     | 1<br>1<br>2<br>3<br>4<br>13<br>72<br>87<br>75<br>×          | 8<br>11<br>11<br>20<br>24<br>84<br>199<br>322<br>220<br>x              | 11<br>15<br>19<br>37<br>140<br>269<br>428<br>491<br>406<br>x              | 6<br>5<br>20<br>213<br>350<br>370<br>330<br>326<br>x                      | 1<br>1<br>4<br>73<br>142<br>109<br>80<br>69<br>×                      | 20<br>31<br>40<br>19<br>14<br>x                               | 1<br>5<br>6<br>3<br>3<br>x                | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· | ·<br>·<br>·<br>·<br>·                 |              | 2          |
|   | 11:00am<br>12:00pm<br>01:00pm<br>03:00pm<br>04:00pm<br>05:00pm<br>07:00pm<br>07:00pm<br>09:00pm<br>10:00pm | 117                              | 53                                    |  | 250   | 007  | 1040  | 1651  | 407   | 100   | 10  |   |                                       |              |            |
|   | Totals<br>Percent  | 117<br>2.12                      | 53<br>0.96                            | 57<br>1.03   | 259<br>4.68   |  | 1848<br>33.42   |   | 487<br>8.81   | 128<br>2.31   | 18<br>0.33                                | 5<br>0.09   | 0.00                                  | 0<br>0.00    | (<br>0.0(  |

WILT-179 - North

Status: OK North Combined South

| WILI-179 - NORTH   |   |   |              |   |  |   |  |  |  |  |  |   |   |   |            |
|--|---|---|--------------|---|--|---|--|--|--|--|--|---|---|---|------------|
| Collected during COVID-19 epoch  | Hour  | MPH<br>0-15   | MPH<br>16-20 | MPH<br>21-25  | MPH<br>26-30   | MPH<br>31-35  | MPH<br>36-40   | MPH<br>41-45   | MPH<br>46-50   | MPH<br>51-55   | MPH<br>56-60   | MPH<br>61-65  | MPH<br>66-60  | MPH<br>71-75  | MP]<br>76- |
| Town   | Monday<br>29-Jun<br>12:00am<br>01:00am<br>02:00am<br>03:00am  |   |              |   |  |   |  |  |  |  |  |   |   |   |            |
| All Vehicles Average Speed   | 04:00am<br>05:00am<br>06:00am<br>07:00am<br>08:00am<br>09:00am  | x   | x            | x   | x  | x   | x  | x  | x  | x  | x  | x   | x   | x   | 3          |
| All Report Days         85th Percentile Speed  | 10:00am<br>11:00am<br>12:00pm<br>02:00pm<br>03:00pm<br>04:00pm<br>05:00pm<br>06:00pm<br>07:00pm<br>08:00pm<br>10:00pm<br>11:00pm<br>Totals<br>Percent |   |              | 3<br>3<br>2<br>1<br>6<br>1<br>1<br>2<br>2<br>24<br>0.31 | 5<br>3<br>13<br>6<br>3<br>7<br>3<br>1<br>1<br>1<br>2<br>53<br>0.69 | 57<br>47<br>68<br>59<br>52<br>42<br>57<br>60<br>35<br>17<br>14<br>10<br>6<br>3<br>527<br>6.90 | 189<br>186<br>264<br>240<br>195<br>231<br>268<br>244<br>167<br>114<br>82<br>40<br>0<br>22<br>19<br>2261<br>29.59 | 238<br>266<br>254<br>3359<br>386<br>349<br>375<br>347<br>219<br>115<br>68<br>64<br>32<br>3409<br>44.61 | 69<br>69<br>57<br>90<br>123<br>116<br>124<br>129<br>104<br>89<br>50<br>29<br>30<br>12<br>1091<br>14.28 | 15<br>15<br>14<br>28<br>31<br>24<br>29<br>25<br>14<br>9<br>4<br>8<br>8<br>8<br>242<br>3.17 | 1<br>1<br>1<br>5<br>2<br>4<br>5<br>3<br>1<br>2<br>2<br>6<br>0.34       | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· | (<br>0.0(  |
| In-Period Total Vehicles   | Tuesday<br>30-Jun<br>12:00am<br>01:00am<br>02:00am<br>03:00am   | 1   | 1            | •   | 1  | 5<br>2<br>4   | 10<br>4<br>5<br>5  | 22<br>6<br>14<br>16  | 8<br>4<br>2<br>1   | 4<br>1<br>1  | 1  | •   | 2   |   |            |
| Tuesday 30-Jun-2020           85th Percentile Speed.         45.3 MPH           50th Percentile Speed.         40.3 MPH           10 MPH Pace (71%).         36-45 MPH           All Hours Total Vehicles.         10051           In-Period Total Vehicles.         4762           Omitted Vehicles Too Close (71%).         3390           Omitted Vehicles Too Slow (0%).         12           Sampled Vehicles (29%).         1360 | 04:00am<br>05:00am<br>06:00am<br>07:00am<br>08:00am<br>09:00am<br>10:00am<br>11:00am<br>12:00pm   | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·  |              | 2<br>1<br>4<br>5<br>3<br>5                              | 1<br>5<br>10<br>10<br>12<br>10<br>13                               | 1<br>4<br>6<br>40<br>63<br>82<br>88<br>67<br>82   | 10<br>33<br>47<br>136<br>220<br>172<br>208<br>221<br>248   | 8<br>61<br>151<br>224<br>214<br>200<br>234<br>225<br>300   | 2<br>26<br>83<br>78<br>61<br>63<br>61<br>69<br>70  | 1<br>10<br>38<br>36<br>13<br>21<br>16<br>10<br>7   | 1<br>5<br>6<br>4<br>1<br>1<br>1  | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· | ·<br>·<br>·<br>·<br>·   | 1   |            |
| Wednesday 01-Jul-2020           85th Percentile Speed  | 01:00pm<br>02:00pm<br>03:00pm<br>04:00pm<br>05:00pm<br>06:00pm<br>08:00pm<br>09:00pm<br>10:00pm<br>11:00pm<br>Totals<br>Percent<br>Wednesda           |   |              | 2<br>3<br>2<br>2<br>1<br>2<br>2<br>0.32                 | 6<br>8<br>3<br>4<br>3<br>5<br>2<br>1<br>1<br>95                    | 78<br>58<br>53<br>48<br>75<br>34<br>15<br>19<br>7<br>10<br>5<br>846                           | 259<br>202<br>255<br>221<br>232<br>201<br>109<br>69<br>51<br>45<br>26<br>2989<br>29.74                           | 314<br>303<br>355<br>390<br>389<br>314<br>206<br>134<br>92<br>71<br>46<br>4289                         | 60<br>122<br>90<br>125<br>120<br>96<br>99<br>62<br>32<br>29<br>19<br>1382                              | 12<br>28<br>30<br>23<br>19<br>18<br>18<br>9<br>4<br>4<br>351<br>3.49                       | 5<br>2<br>2<br>8<br>2<br>6<br>1<br>1<br>1<br>1<br>1<br>1<br>49<br>0.49 | 1<br>1<br>1<br>2<br>8<br>0.08   | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· |   | (<br>0.0(  |
|  | 01-Jul<br>12:00am<br>01:00am<br>02:00am<br>03:00am<br>05:00am<br>06:00am<br>07:00am<br>08:00am<br>09:00am   | · y<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· |              |   | 1<br>1<br>1<br>2<br>9<br>14  | 3<br>2<br>4<br>8<br>5<br>7<br>6<br>24<br>76<br>63<br>×  | 14<br>10<br>12<br>9<br>16<br>49<br>42<br>141<br>185<br>192<br>×  | 17<br>5<br>3<br>2<br>9<br>34<br>134<br>206<br>210<br>221<br>x  | 7<br>1<br>2<br>21<br>85<br>76<br>63<br>56<br>×   | 3<br>7<br>28<br>38<br>17<br>11<br>x  |  | 1   |   | ·<br>·<br>·<br>·  | 1          |
|  | 11:00am<br>12:00pm<br>01:00pm<br>03:00pm<br>03:00pm<br>04:00pm<br>06:00pm<br>07:00pm<br>09:00pm<br>10:00pm<br>11:00pm<br>11:00pm                      | 1   | 2            | 12  | 29   | 198   | 670  | 841  | 313  | 104  | 17   | 5   | 0   | 0   | (          |
|  | Percent   |   |              |   |  |   | 30.57  |  |  |  |  |   |   | 0.00  |            |

WILT-179 - South

Status: OK North Combined South

| WILI-179-South   | -  |                                 |   |   |   |  |  |  |   |   |   |   |   |   |            |
|--|--|---------------------------------|---|---|---|--|--|--|---|---|---|---|---|---|------------|
| Collected during COVID-19 epoch  | Hour   | MPH<br>0-15                     | MPH<br>16-20  | MPH<br>21-25  | MPH<br>26-30  | MPH<br>31-35   | MPH<br>36-40   | MPH<br>41-45   | MPH<br>46-50  | MPH<br>51-55  | MPH<br>56-60  | MPH<br>61-65  | MPH<br>66-60  | MPH<br>71-75  | MP:<br>76- |
| Posted Speed Limit   | Monday<br>29-Jun<br>12:00am<br>01:00am<br>02:00am<br>03:00am   |                                 |   |   |   |  |  |  |   |   |   |   |   |   |            |
| All Vehicles Average Speed   | 04:00am<br>05:00am<br>06:00am<br>07:00am<br>08:00am<br>09:00am<br>10:00am  | х<br>3                          | x<br>11   | x<br>13   | x<br>45   | x<br>182   | x<br>288   | x<br>114   | ×<br>27   | x<br>4  | x   | x   | x   | x   | 2          |
| All Report Days           85th Percentile Speed  | 11:00am<br>12:00pm<br>01:00pm<br>02:00pm<br>03:00pm<br>04:00pm<br>05:00pm<br>06:00pm<br>06:00pm<br>08:00pm                                 | 11<br>4<br>3<br>1<br>3<br>2     | 20<br>6<br>4<br>3<br>5<br>1<br>1<br>1<br>1          | 5<br>22<br>19<br>3<br>4<br>12<br>7<br>1<br>1                | 43<br>80<br>62<br>23<br>27<br>42<br>50<br>3<br>4<br>7<br>8      | 164<br>166<br>210<br>177<br>220<br>162<br>162<br>71<br>33<br>41<br>35          | 301<br>243<br>249<br>299<br>297<br>299<br>281<br>239<br>152<br>108<br>80 | 143<br>140<br>116<br>141<br>123<br>144<br>154<br>138<br>124<br>81<br>57                | 20<br>15<br>10<br>14<br>26<br>14<br>19<br>29<br>25<br>7<br>7                | 1<br>2<br>10<br>4<br>4<br>2<br>3<br>2                   | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·   | 1   |   |   |            |
| 85th Percentile Speed  | 10:00pm<br>11:00pm<br>Totals<br>Percent<br>Tuesday<br>30-Jun   | 27<br>0.39                      | 53<br>0.76  | 87<br>1.25  | 1<br>2<br>397<br>5.71   | 12<br>6<br>1641<br>23.61   | 60<br>32<br>2928<br>42.13  | 41<br>27<br>1543<br>22.20  | 6<br>9<br>228<br>3.28   | 1<br>5<br>43<br>0.62                                    | 1<br>2<br>0.03  | 1<br>0.01   | 0<br>0.00   | 0<br>0.00   | 0.00       |
| Omitted Vehicles Too Slow ( 0%)15         Sampled Vehicles (23%)936 <u>Tuesday 30-Jun-2020</u> 85th Percentile Speed | 12:00am<br>01:00am<br>02:00am<br>03:00am<br>04:00am<br>05:00am<br>06:00am<br>07:00am<br>08:00am<br>10:00am<br>11:00am                      | 1<br>1<br>2<br>3<br>8<br>1<br>2 |   | 1<br>5<br>17<br>11<br>15<br>13<br>29                        | 1<br>12<br>16<br>37<br>77<br>67<br>59<br>91                     | 4<br>3<br>4<br>1<br>19<br>73<br>165<br>251<br>168<br>198<br>208<br>208         | 12<br>4<br>7<br>5<br>20<br>93<br>253<br>259<br>284<br>307<br>242<br>258  | 17<br>7<br>3<br>5<br>28<br>204<br>210<br>164<br>127<br>146<br>117<br>92                | 2<br>1<br>3<br>7<br>52<br>42<br>29<br>16<br>14<br>13<br>13                  | 1   | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· | ·<br>·<br>·<br>·<br>·<br>·  | ·<br>·<br>·<br>·<br>·<br>·<br>·   |   |            |
| Wednesday         01-Jul-2020           85th         Percentile         Speed  | 12:00pm<br>01:00pm<br>02:00pm<br>03:00pm<br>05:00pm<br>06:00pm<br>06:00pm<br>08:00pm<br>10:00pm<br>11:00pm<br>Totals<br>Percent            |                                 | 8<br>3<br>12<br>4<br>2<br>1<br>2<br>1<br>63<br>0.61 | 32<br>2<br>20<br>17<br>22<br>8<br>6<br>1<br>1<br>99<br>1.92 | 77<br>45<br>71<br>77<br>51<br>34<br>18<br>2<br>8<br>744<br>7.17 | 231<br>258<br>204<br>197<br>159<br>163<br>36<br>39<br>11<br>8<br>2545<br>24.53 |  | 108<br>90<br>148<br>133<br>157<br>140<br>143<br>165<br>67<br>65<br>33<br>2471<br>23.81 | 8<br>8<br>16<br>13<br>24<br>22<br>30<br>16<br>10<br>19<br>11<br>382<br>3.68 | 3<br>2<br>1<br>1<br>7<br>9<br>2<br>2<br>6<br>56<br>0.54 |   | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· | ·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>·<br>· | (<br>0.0(  |
|  | Wednesda<br>01-Jul<br>12:00am<br>01:00am<br>02:00am<br>03:00am<br>05:00am<br>06:00am<br>07:00am<br>08:00am<br>09:00am<br>10:00am           | y                               | 1<br>5<br>4<br>40<br>x                              |   | 1<br>1<br>3<br>12<br>70<br>78<br>61<br>x                        | 5<br>6<br>7<br>3<br>15<br>17<br>78<br>175<br>246<br>157<br>x                   | 18<br>1<br>3<br>10<br>21<br>91<br>227<br>287<br>306<br>214<br>x          | 6<br>1<br>2<br>6<br>11<br>179<br>216<br>164<br>120<br>105<br>x                         | 2<br>52<br>57<br>33<br>17<br>13<br>x  | 1<br>13<br>3<br>2<br>2<br>3<br>x                        |   |   |   |   | 1          |
|  | 11:00am<br>12:00pm<br>01:00pm<br>02:00pm<br>03:00pm<br>05:00pm<br>06:00pm<br>07:00pm<br>09:00pm<br>10:00pm<br>11:00pm<br>Totals<br>Percent | 116<br>3.48                     | 51<br>1.53  | 45<br>1.35  | 230<br>6.89   |  | 1178<br>35.29  | 810<br>24.27   | 174<br>5.21   | 24<br>0.72  | 1<br>0.03   | 00.00   | 00.00   | 00.00   | (<br>0.0(  |

Combined North Status: OK

South

WILT-179 - Combined - n/s

| Collected during COVID-19 epoch               | Hour   | Motor<br>Cycle | Pass<br>Cars                                      | Single<br>Unit                        | Combo<br>Unit                      | Day<br>Total  |
|---|--|----------------|---|---------------------------------------|------------------------------------|---|
| Town.   | 29-Jun<br>Mon<br>12:00am<br>01:00am<br>02:00am<br>03:00am<br>04:00am<br>05:00am<br>06:00am<br>07:00am<br>09:00am<br>10:00am<br>11:00am<br>11:00am<br>11:00pm<br>02:00pm<br>03:00pm | X              | x<br>1165<br>1179<br>1286<br>1339<br>1348<br>1440 | x<br>81<br>67<br>70<br>86<br>88<br>78 | x<br>15<br>21<br>16<br>9<br>4<br>6 | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>1261<br>1267<br>1372<br>1434<br>1440<br>1524 |
| Passenger Cars 38209 94.23% 8.0-25.0          | 04:00pm  |                | 1469  | 51                                    | 4                                  | 1524  |
| Single-Unit Trucks 2019 4.98% 25.0-50.0       | 05:00pm  |                | 1478  | 42                                    | 5                                  | 1525  |
| Combination Trucks 321 0.79% 50.0 >           | 06:00pm  |                | 1126  | 42                                    | 3                                  | 1171  |
| Total Vehicles 40549                          | 07:00pm  |                | 771   | 26                                    |                                    | 797   |
|   | 08:00pm  |                | 515   | 7                                     |                                    | 522   |
| <u>Single</u> <u>Combo</u>                    | 09:00pm  | •              | 332   | 10                                    | 4                                  | 346   |
| Peak Hour Truck Volume                        | 10 <b>:</b> 00pm   | •              | 247   | 5                                     | 1                                  | 253   |
| <pre>% Total Peak Hour Volume 4.0% 0.5%</pre> | 11:00pm  | •              | 154   | 1                                     | •                                  | 155   |
| 24 Hour Truck Volume                          | Totals   | 0              | 13849   | 654                                   | 88                                 | 14591   |
| All-Vehicle Annualized ADT 18500 18500        | Percent  | 0.00           | 94.91   | 4.48                                  | 0.60                               |   |
| 24Hour T-Vol % of A-V AADT 5.4% 0.9%          | 30-Jun   |                |   |                                       |                                    |   |
| PeakHr T-Vol % of A-V AADT 0.3% 0.0%          | Tue  |                |   |                                       |                                    |   |
| K-Factor (Peak/AADT) 8.0% 8.0%                | 12 <b>:</b> 00am   |                | 82  | 5                                     |                                    | 87  |
| (AADT & Legacy AADT match)                    | 01:00am  |                | 27  | 5                                     | 1                                  | 33  |
| (   | 02:00am  |                | 31  | 6                                     | 3                                  | 40  |
|   | 03:00am  | •              | 31  | 9                                     | 2                                  | 42  |
|   | 04:00am  | •              | 65  | 9                                     | 6                                  | 80  |
|   | 05:00am  | •              | 502   | 17                                    | 5                                  | 524   |
|   | 06:00am  | •              | 885   | 45                                    | 6                                  | 936   |
|   | 07:00am  | •              | 1123  | 81                                    | 11                                 | 1215  |
|   | 08:00am  | •              | 1238  | 102                                   | 21                                 | 1361  |
|   | 09:00am  | •              | 1198  | 70                                    | 14                                 | 1282  |
|   | 10:00am  | •              | 1179  | 85                                    | 18                                 | 1282  |
|   | 11:00am  | •              | 1234  | 66                                    | 8                                  | 1308  |
|   | 12:00pm  | •              | 1365  | 69                                    | 12                                 | 1446  |
|   | 01:00pm  | •              | 1336  | 77                                    | 7                                  | 1420  |
|   | 02:00pm  | •              | 1363  | 71                                    | 10                                 | 1444  |
|   | 03:00pm  | •              | 1419  | 60                                    | 8                                  | 1487  |
|   | 04:00pm  | •              | 1411  | 55                                    | 5                                  | 1471  |
|   | 05:00pm  | •              | 1399  | 57                                    | 5                                  | 1461  |
|   | 06:00pm  | •              | 1117  | 39                                    | 4                                  | 1160  |
|   | 07:00pm  | •              | 819   | 30                                    | 4                                  | 853   |
|   | 08:00pm  | •              | 599   | 7                                     | 5                                  | 611   |
|   | 09:00pm  | •              | 369   | 12                                    | 2                                  | 383   |
|   | 10:00pm  | •              | 304   | 9                                     | 3                                  | 316   |
|   | 11:00pm  |                | 182   | 4                                     |                                    | 186   |
|   | Totals   | 0              | 19278   | 990                                   | 160                                | 20428   |
|   | Percent  | 0.00           | 94.37   | 4.85                                  | 0.78                               |   |
|   |  |                |   |                                       |                                    |   |

#### 2020 WILT-179 - Class

| 1-Jul |  |
|-------|--|
| Wed   |  |

| 01-Jul<br>Wed |      |         |      |      |      |
|---------------|------|---------|------|------|------|
| 12:00am       |      | 66      | 9    |      | 75   |
| 01:00am       | •    | 27      | 1    |      | 28   |
| 02:00am       | •    | 23      | 9    | 1    | 33   |
| 03:00am       |      | 32      | 5    | 5    | 42   |
| 04:00am       |      | 77      | 6    | 2    | 85   |
| 05:00am       |      | 448     | 23   | 6    | 477  |
| 06:00am       |      | 849     | 40   | 9    | 898  |
| 07:00am       |      | 1152    | 86   | 14   | 1252 |
| 08:00am       |      | 1224    | 107  | 17   | 1348 |
| 09:00am       |      | 1184    | 89   | 19   | 1292 |
| 10:00am       | Х    | x       | x    | х    | 0    |
| 11:00am       |      |         |      |      | 0    |
| 12:00pm       |      |         |      |      | 0    |
| 01:00pm       |      |         |      |      | 0    |
| 02:00pm       |      |         |      |      | 0    |
| 03:00pm       |      |         |      |      | 0    |
| 04:00pm       |      |         |      |      | 0    |
| 05:00pm       |      |         |      |      | 0    |
| 06:00pm       |      |         |      |      | 0    |
| 07:00pm       |      |         |      |      | 0    |
| 08:00pm       |      |         |      |      | 0    |
| 09:00pm       |      |         |      |      | 0    |
| 10:00pm       |      |         |      |      | 0    |
| 11:00pm       | 0    | F 0 0 0 | 275  |      | 0    |
| Totals        | 0    | 5082    | 375  | 73   | 5530 |
| Percent       | 0.00 | 91.90   | 6.78 | 1.32 |      |

#### WILT-179 - North

|   |                    | Motor  | Pass       | Single     | Combo   | Day        |
|---|--------------------|--------|------------|------------|---------|------------|
| Collected during COVID-19 epoch               | Hour               | Cycle  | Cars       | Unit       | Unit    | Total      |
|   | nour               | 0,010  | ourb       | 01110      | 011110  | TOCAL      |
| TownWilton                                    |                    |        |            |            |         |            |
| Station                                       | 29-Jun             |        |            |            |         |            |
|   | Mon                |        |            |            |         |            |
| Posted Speed Limit                            | 12:00am            |        |            |            |         | 0          |
| 2015-Principal Arterial - Other 32015-Urban   | 01.00              |        |            |            |         | 0          |
| Start Report                                  | 0.0                |        |            |            |         | 0          |
| All Vehicle Peak Hour                         | 03:00am            |        |            |            |         | 0          |
| End Report                                    | 04:00am            |        |            |            |         | 0          |
| Annualized ADT                                | 05:00am            |        |            |            |         | 0          |
| 24-Hour Count                                 | 06:00am            |        |            |            |         | 0          |
| Day $1 \dots +10051 * G4(0.91) = 18173.6$     | 07:00am            |        |            |            |         | 0          |
| UnRounded AADT                                | 08:00am            |        |            |            |         | 0          |
| OK 2020 Mon 29-Jun -this report18500          | 09:00am            | х      | х          | х          | х       | 0          |
| OK 2017 Wed 15-Nov25300                       | 10:00am            | -      | 518        | 46         | 10      | 574        |
| OK 2014 Mon 01-Dec                            | 11:00am            |        | 546        | 37         | - 0     | 590        |
| REV 2011 Mon 14-Mar26700                      | 12:00pm            |        | 620        | 44         | 10      | 674        |
| OK 2008 Wed 05-Mar26900                       | 01:00pm            | •      | 704        | 50         | 3       | 757        |
|   | 02:00pm            | •      | 715        | 57         | 2       | 774        |
| <u>Count</u> <u>Percent</u> <u>Veh.Feet</u>   | 03:00pm            | •      | 765        | 44         | 4       | 813        |
| Motorcycles 0 0.00% 0.0- 8.0                  | 04:00pm            | •      | 801        | 36         | 2       | 839        |
| Passenger Cars 18529 93.19% 8.0-25.0          | 05:00pm            | •      | 816        | 28         | 3       | 847        |
| Single-Unit Trucks 1185 5.96% 25.0-50.0       | 06:00pm            | •      | 650        | 31         | 2       | 683        |
| Combination Trucks 170 0.85% 50.0 >           | 07:00pm            | •      | 435        | 21         | 2       | 456        |
| Total Vehicles 19884                          | 07:00pm<br>08:00pm | •      | 433<br>271 | 3          | •       | 274        |
|   | 09:00pm            | •      | 152        | 3          | •       | 155        |
| <u>Single</u> <u>Combo</u>                    | 10:00pm            | •      | 127        | 4          | •       | 131        |
| Peak Hour Truck Volume442                     | 11:00pm            | •      | 74         |            | •       | 74         |
| <pre>% Total Peak Hour Volume 5.2% 0.2%</pre> | Totals             | •<br>0 | 7194       | •<br>404   | •<br>43 | 7641       |
| 24 Hour Truck Volume 587 84                   | Percent            | 0.00   | 94.15      | 5.29       | 0.56    | 1041       |
| All-Vehicle Annualized ADT 9100 9100          | 30-Jun             | 0.00   | 94.13      | 5.29       | 0.50    |            |
| 24Hour T-Vol % of A-V AADT 6.5% 0.9%          | JU UUII<br>Tue     |        |            |            |         |            |
| PeakHr T-Vol % of A-V AADT 0.5%         0.0%  | 10.00              |        | 49         | 4          |         | 53         |
| K-Factor (Peak/AADT) 9.3% 9.3%                | 01:00am            | •      | 49<br>14   | 1          | •<br>1  | 16         |
| (AADT & Legacy AADT match)                    | 02:00am            | •      | 18         | 2          | 3       | 23         |
|   | 02:00am            | •      | 18         | 8          | 2       | 23         |
|   | 04:00am            | •      | 10         | 3          | 2       | 24         |
|   | 04.00am<br>05:00am | •      | 122        | 11         | 2       | 135        |
|   | 06:00am            | •      | 300        | 28         | 2       | 330        |
|   | 07:00am            | •      | 483        | 2 0<br>4 4 | 4       | 531        |
|   | 08:00am            | •      | 405<br>519 | 54         | 13      | 586        |
|   | 09:00am            | •      | 506        | 54<br>41   | 13      | 553        |
|   | 10:00am            | •      | 572        | 43         | 11      | 626        |
|   | 10.00am<br>11:00am | •      | 572        | 34         | 4       | 609        |
|   | 12:00am            | •      | 672        | 44         | 9       | 725        |
|   | 01:00pm            | •      | 689        | 38         | 4       | 731        |
|   | 01:00pm<br>02:00pm | •      | 686        | 39         | 5       | 731        |
|   | 02:00pm<br>03:00pm | •      | 743        | 42         | 3       | 788        |
|   | -                  | •      | 745        | 38         | 5       | 823        |
|   | 04:00pm<br>05:00pm | •      | 804        | 58<br>44   | 2       | 823<br>850 |
|   | 05:00pm<br>06:00pm | •      | 642        | 44<br>29   | 2       | 672        |
|   | 08:00pm<br>07:00pm | •      | 642<br>435 | 29<br>19   | 1       | 672<br>456 |
|   | 07:00pm<br>08:00pm | •      | 435<br>302 | 19         | 2       | 456<br>308 |
|   | _                  | •      |            |            | 2<br>1  | 308<br>192 |
|   | 09:00pm<br>10:00pm | •      | 183<br>155 | 8<br>6     | T       | 192        |
|   | -                  | •      | 98         | 6<br>3     | •       | 101        |
|   | 11:00pm<br>Totals  | •<br>0 | 98<br>9380 | 3<br>587   | 84      | 10051      |
|   | Percent            | 0.00   |            | 5.84       | 0.84    | TOOOT      |
|   | rercent            | 0.00   | 93.32      | J.84       | 0.04    |            |

| 2020 WILT-179 - C | lass |       |      |      |      |
|-------------------|------|-------|------|------|------|
| 01-Jul            |      |       |      |      |      |
| Wed               |      |       |      |      |      |
| 12:00am           |      | 42    | 3    |      | 45   |
| 01:00am           |      | 19    | 1    |      | 20   |
| 02:00am           |      | 16    | 3    | 1    | 20   |
| 03:00am           |      | 15    | 4    | 3    | 22   |
| 04:00am           |      | 25    | 6    | 1    | 32   |
| 05:00am           | •    | 105   | 11   | 5    | 121  |
| 06:00am           | •    | 276   | 23   | 4    | 303  |
| 07:00am           |      | 443   | 42   | 11   | 496  |
| 08:00am           |      | 499   | 57   | 10   | 566  |
| 09:00am           |      | 515   | 44   | 8    | 567  |
| 10:00am           | Х    | Х     | X    | х    | 0    |
| 11:00am           |      |       |      |      | 0    |
| 12:00pm           |      |       |      |      | 0    |
| 01:00pm           |      |       |      |      | 0    |
| 02:00pm           |      |       |      |      | 0    |
| 03:00pm           |      |       |      |      | 0    |
| 04:00pm           |      |       |      |      | 0    |
| 05:00pm           |      |       |      |      | 0    |
| 06:00pm           |      |       |      |      | 0    |
| 07:00pm           |      |       |      |      | 0    |
| 08:00pm           |      |       |      |      | 0    |
| 09:00pm           |      |       |      |      | 0    |
| 10:00pm           |      |       |      |      | 0    |
| 11:00pm           |      |       |      |      | 0    |
| Totals            | 0    | 1955  | 194  | 43   | 2192 |
| Percent           | 0.00 | 89.19 | 8.85 | 1.96 |      |

Status: OK North Combined South

#### WILT-179 - South

| Collected during COVID-19 epoch                                 |                    | Motor | Pass       | Single   | Combo  | Day        |
|---|--------------------|-------|------------|----------|--------|------------|
|   | Hour               | Cycle | Cars       | Unit     | Unit   | Total      |
| TownWilton  |                    |       |            |          |        |            |
| Station   | 29-Jun             |       |            |          |        |            |
| Location  | Mon                |       |            |          |        |            |
| 2015-Principal Arterial - Other 32015-Urban                     | 12:00am            |       |            |          |        | 0          |
| Start Report  | 01:00am            |       |            |          |        | 0          |
| All Vehicle Peak Hour   | 02:00am            |       |            |          |        | 0          |
| End Report  | 03:00am            |       |            |          |        | 0          |
| Annualized ADT9400  | 04:00am            |       |            |          |        | 0          |
| 24-Hour Count10271 * G4(0.91) = 9346.6                          | 05:00am<br>06:00am |       |            |          |        | 0<br>0     |
| Day 1+ $10377 \times G4(0.91) = 18789.7$                        | 07:00am            |       |            |          |        | 0          |
| UnRounded AADT  | 08:00am            |       |            |          |        | 0          |
| OK 2020 Mon 29-Jun -this report18500<br>OK 2017 Wed 15-Nov25300 | 09:00am            | Х     | х          | Х        | Х      | 0          |
| OK 2017 Wed 13-NOV23300<br>OK 2014 Mon 01-Dec27900              | 10:00am            |       | 647        | 35       | 5      | 687        |
| REV 2011 Mon 14-Mar   | 11:00am            |       | 633        | 30       | 14     | 677        |
| OK 2008 Wed 05-Mar  | 12:00pm            |       | 666        | 26       | 6      | 698        |
|   | 01:00pm            | •     | 635        | 36       | 6      | 677        |
| <u>Count</u> <u>Percent</u> <u>Veh.Feet</u>                     | 02:00pm            | •     | 633        | 31       | 2      | 666        |
| Motorcycles 0 0.00% 0.0- 8.0                                    | 03:00pm            | •     | 675        | 34       | 2      | 711        |
| Passenger Cars 19680 95.23% 8.0-25.0                            | 04:00pm<br>05:00pm | •     | 668<br>662 | 15<br>14 | 2<br>2 | 685<br>678 |
| Single-Unit Trucks 834 4.04% 25.0-50.0                          | 06:00pm            | •     | 476        | 14       | 1      | 488        |
| Combination Trucks 151 0.73% 50.0 ><br>Total Vehicles 20665     | 07:00pm            |       | 336        | 5        |        | 341        |
| Total venicles 20665  | 08:00pm            |       | 244        | 4        | •      | 248        |
| <u>Single</u> <u>Combo</u>                                      | 09:00pm            |       | 180        | 7        | 4      | 191        |
| Peak Hour Truck Volume  | 10:00pm            |       | 120        | 1        | 1      | 122        |
| % Total Peak Hour Volume 6.2% 1.0%                              | 11 <b>:</b> 00pm   | •     | 80         | 1        | •      | 81         |
| 24 Hour Truck Volume 403 76                                     | Totals             | 0     | 6655       | 250      | 45     | 6950       |
| All-Vehicle Annualized ADT 9400 9400                            | Percent            | 0.00  | 95.76      | 3.60     | 0.65   |            |
| 24Hour T-Vol % of A-V AADT 4.3% 0.8%                            | 30-Jun<br>Tue      |       |            |          |        |            |
| PeakHr T-Vol % of A-V AADT 0.5%         0.1%                    | 12:00am            |       | 33         | 1        |        | 34         |
| K-Factor (Peak/AADT) 8.2% 8.2%                                  | 01:00am            | •     | 13         | 4        | •      | 17         |
| (AADT & Legacy AADT match)                                      | 02:00am            |       | 13         | 4        | •      | 17         |
|   | 03:00am            |       | 13         | 1        |        | 14         |
|   | 04:00am            |       | 46         | 6        | 4      | 56         |
|   | 05:00am            | •     | 380        | 6        | 3      | 389        |
|   | 06:00am            | •     | 585        | 17       | 4      | 606        |
|   | 07:00am            | •     | 640        | 37       | 7      | 684        |
|   | 08:00am            | •     | 719        | 48<br>29 | 8      | 775<br>729 |
|   | 09:00am<br>10:00am | •     | 692<br>607 | 29<br>42 | 8<br>7 | 656        |
|   | 11:00am            | •     | 663        | 32       | 4      | 699        |
|   | 12:00pm            |       | 693        | 25       | 3      | 721        |
|   | 01:00pm            |       | 647        | 39       | 3      | 689        |
|   | 02:00pm            |       | 677        | 32       | 5      | 714        |
|   | 03:00pm            |       | 676        | 18       | 5      | 699        |
|   | 04:00pm            | •     | 631        | 17       | •      | 648        |
|   | 05:00pm            | •     | 595        | 13       | 3      | 611        |
|   | 06:00pm            | •     | 475        | 10       | 3      | 488        |
|   | 07:00pm            | •     | 384        | 11       | 2<br>3 | 397        |
|   | 08:00pm<br>09:00pm | •     | 297<br>186 | 3<br>4   | 3<br>1 | 303<br>191 |
|   | 10:00pm            | •     | 149        | 4        | 3      | 151        |
|   | 11:00pm            |       | 84         | 1        | •      | 85         |
|   | Totals             | 0     | 9898       | 403      | 76     | 10377      |
|   | Percent            | 0.00  | 95.38      | 3.88     | 0.73   |            |
|   |                    |       |            |          |        |            |

#### 2020 WILT-179 - Class

| 01-Jul |  |
|--------|--|
| Mod    |  |

| 01-Jul           |      |       |      |      |      |
|------------------|------|-------|------|------|------|
| Wed              |      |       |      |      |      |
| 12:00am          | •    | 24    | 6    |      | 30   |
| 01:00am          |      | 8     |      |      | 8    |
| 02:00am          |      | 7     | 6    |      | 13   |
| 03:00am          |      | 17    | 1    | 2    | 20   |
| 04:00am          |      | 52    |      | 1    | 53   |
| 05:00am          | •    | 343   | 12   | 1    | 356  |
| 06:00am          | •    | 573   | 17   | 5    | 595  |
| 07:00am          | •    | 709   | 44   | 3    | 756  |
| 08:00am          | •    | 725   | 50   | 7    | 782  |
| 09:00am          | •    | 669   | 45   | 11   | 725  |
| 10:00am          | Х    | Х     | Х    | Х    | 0    |
| 11:00am          |      |       |      |      | 0    |
| 12 <b>:</b> 00pm |      |       |      |      | 0    |
| 01:00pm          |      |       |      |      | 0    |
| 02:00pm          |      |       |      |      | 0    |
| 03:00pm          |      |       |      |      | 0    |
| 04:00pm          |      |       |      |      | 0    |
| 05:00pm          |      |       |      |      | 0    |
| 06:00pm          |      |       |      |      | 0    |
| 07:00pm          |      |       |      |      | 0    |
| 08:00pm          |      |       |      |      | 0    |
| 09:00pm          |      |       |      |      | 0    |
| 10:00pm          |      |       |      |      | 0    |
| 11:00pm          |      |       |      |      | 0    |
| Totals           | 0    | 3127  | 181  | 30   | 3338 |
| Percent          | 0.00 | 93.68 | 5.42 | 0.90 |      |

Status: OK

#### WILT-179 - North & South

| Location | 12:00am<br>01:00am<br>02:00am<br>03:00am<br>04:00am<br>05:00am<br>06:00am<br>07:00am<br>08:00am<br>09:00am<br>10:00am<br>11:00am<br>11:00am<br>01:00pm<br>02:00pm<br>03:00pm<br>04:00pm<br>05:00pm<br>06:00pm<br>07:00pm<br>08:00pm<br>10:00pm<br>10:00pm | 15-Nov<br>Wed | 16-Nov<br>Thu<br>105<br>59<br>57<br>66<br>120<br>565<br>1308<br>2009<br>2228<br>1835<br>1487<br>1511<br>1402<br>1602<br>1684<br>1871<br>1911<br>2291<br>1976<br>1320<br>894<br>636 |
|----------|---|---------------|--|
|          | IULAIS  | 205           | 20931  |

Status: OK

#### WILT-179 - North & South

| Town. | 02:00am | 01-Dec<br>Mon<br>1454<br>2134<br>2244<br>1995<br>1478<br>1620<br>1797<br>1700<br>1853<br>2017<br>2038<br>2250<br>2031<br>1490<br>875<br>560<br>378<br>219<br>28133 | 02-Dec<br>Tue<br>95<br>69<br>37<br>64<br>138<br>577<br>1483<br>2463 |
|-------|---------|--|---|
|-------|---------|--|---|

### WILT-179 - Combined - n/s

| Location | 154<br>384<br>1238<br>2043<br>2281<br>1750<br>1396<br>1496<br>1684<br>1664<br>1619<br>1846<br>1928<br>2253<br>2030<br>1267<br>798<br>540<br>354<br>226 | 44<br>51<br>263 |
|----------|--|-----------------|
| Totals   | 26951  | 263             |

#### WILT-179 - North

| Town. | 12:00am<br>01:00am<br>02:00am<br>03:00am<br>04:00am<br>05:00am<br>06:00am<br>07:00am<br>09:00am<br>10:00am<br>11:00am | 201<br>131 | 15-Mar<br>Tue<br>61<br>35<br>23<br>20 |
|-------|---|------------|---------------------------------------|
|-------|---|------------|---------------------------------------|

#### WILT-179 - South

| Town | 12:00am<br>01:00am<br>02:00am<br>03:00am<br>05:00am<br>05:00am<br>07:00am<br>07:00am<br>09:00am<br>10:00am<br>11:00am | 153<br>95 | 15-Mar<br>Tue<br>44<br>28<br>21<br>31 |
|------|---|-----------|---------------------------------------|
|------|---|-----------|---------------------------------------|

### WILT-179 - Combined - n/s

```
Route 7 - 5.96 mi South of Route 33 (S Jct)
```

| Town.       Wilton         Station.       179         Location.       41.180594,-73.416057         2015-Principal Arterial - Other 32015-Urban       01:00am         Start Report.       06-Mar-2008 03:00AM         End Report.       06-Mar-2008 03:00AM         Axle Correction Factor.       None         Annualized ADT.       26906.2         UnRounded AADT.       26906.2         OK 2020 Mon 29-Jun       08:00am         OK 2017 Wed 15-Nov       25300         OK 2014 Mon 01-Dec       27900         OK 2008 Wed 05-Mar -this report-       26900         Ol:00pm       01:00pm         02:00pm       02:00pm         03:00pm       02:00pm         04:00pm       02:00pm         05:00pm       02:00pm         06:00pm       01:00pm         07:00pm       02:00pm         01:00pm       02:00pm         02:00pm       03:00pm         03:00pm       02:00pm         03:00pm       02:00pm         04:00pm       02:00pm         05:00pm       02:00pm         07:00pm       02:00pm         07:00pm       02:00pm         07:00pm       02:00pm <th>05-Mar<br/>Wed<br/>56<br/>114<br/>318<br/>1144<br/>1897<br/>2193<br/>1803<br/>1440<br/>1562<br/>1747<br/>1688<br/>1691<br/>1791<br/>1922<br/>2234<br/>1920<br/>1281<br/>845<br/>688<br/>380<br/>246<br/>26960</th> <th>06-Mar<br/>Thu<br/>99<br/>77<br/>42<br/>218</th> | 05-Mar<br>Wed<br>56<br>114<br>318<br>1144<br>1897<br>2193<br>1803<br>1440<br>1562<br>1747<br>1688<br>1691<br>1791<br>1922<br>2234<br>1920<br>1281<br>845<br>688<br>380<br>246<br>26960 | 06-Mar<br>Thu<br>99<br>77<br>42<br>218 |
|---|--|--|
| iotais  | 20000  | 210                                    |

#### WILT-179 - North

| Totals 13753 119 | TownWilton         Station | Jam         J | 06-Mar<br>Thu<br>59<br>43<br>17<br>17 |
|------------------|----------------------------|---|---------------------------------------|
|------------------|----------------------------|---|---------------------------------------|

#### WILT-179 - South

| Location   | 12:00am<br>01:00am | 05-Mar<br>Wed | 06-Mar<br>Thu<br>40<br>34 |
|--|--------------------|---------------|---------------------------|
| Start Report   | 02:00am            | 2.2           | 25                        |
| End Report   | 03:00am            | 33<br>62      |                           |
| Axle Correction Factor   | 04:00am            |               |                           |
| Annualuzed AD'L' $\ldots$  | 05:00am            | 231           |                           |
| 24 - Hour (Count 13306 * (4(0.99)) = 13172.9   | 06:00am            | 817           |                           |
| UnRounded AADT   | 07:00am            | 1152          |                           |
| $OK = ZUZU MON ZY - JUN \dots \dots$ | 08:00am            | 1302          |                           |
| OK 2017 Wed 15-Nov   | 09:00am            | 1087          |                           |
| OK 2014 Mon 01-Dec   | 10:00am            | 810           |                           |
| REV 2011 Mon 14-Mar  | 11:00am            | 798           |                           |
| UK ZUUS WED US-Mar -this report  | 12:00pm            | 894           |                           |
|  | 01:00pm            | 818           |                           |
|  | 02:00pm            | 789           |                           |
|  | 03:00pm            | 763           |                           |
|  | 04:00pm            | 780           |                           |
|  | 05:00pm            | 846           |                           |
|  | 06:00pm            | 694           |                           |
|  | 07:00pm            | 483           |                           |
|  | 08:00pm            | 304           |                           |
|  | 09:00pm            | 285           |                           |
|  | 10:00pm            | 166           |                           |
|  | 11:00pm            | 93            |                           |
|  | Totals             | 13207         | 99                        |

# **APPENDIX B** CTDOT Traffic Volumes Approval

## **Jianhong Wang**

From: Sent: To: Cc: Subject: Craig D. Yannes Friday, April 30, 2021 2:52 PM Hiller, Todd Sojka, Gary J; Jacobson, Richard C RE: Traffic Volume Review Request: Wilton

Todd,

Thank you for the feedback. We will use Option 1 and include the updated net new trips as directed.

Have a great weekend!

Craig

Craig D. Yannes, PE, PTOE, RSP1 | Project Manager Tighe&Bond | 1000 Bridgeport Avenue, Suite 320 | Shelton, CT 06484 | 203.712.1114 | Cell 203.530.1753 www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

RT Group has joined Tighe & Bond!

From: Hiller, Todd <Todd.Hiller@ct.gov>
Sent: Friday, April 30, 2021 2:03 PM
To: Craig D. Yannes <CDYannes@tigheBond.com>
Cc: Sojka, Gary J <Gary.Sojka@ct.gov>; Jacobson, Richard C <Richard.Jacobson@ct.gov>
Subject: RE: Traffic Volume Review Request: Wilton

### [Caution - External Sender]

Craig,

Your submission is acceptable. Please use "Option 1-2017 ATR Data" for your submission. In regard to your question about whether or not to consider all the trips as "new" trips since there is no existing OSTA Certificate, I think it is helpful to provide the trip generation tables for both land uses and the net "new" trips just as you did in your original email to our office. Your directional assignment and growth rate are also acceptable. There are no other MTGs in the area that would impact your volumes. One minor adjustment to make, on your "Table 1", the Afternoon Peak hour is labeled as the morning peak hour. If you have any questions, feel free to contact our office.

Have a great weekend!

Todd



Currently Teleworking-Please reach me via email or Microsoft Teams.

From: Sojka, Gary J <<u>Gary.Sojka@ct.gov</u>>
Sent: Thursday, April 29, 2021 1:37 PM
To: Hiller, Todd <<u>Todd.Hiller@ct.gov</u>>
Cc: Jacobson, Richard C <<u>Richard.Jacobson@ct.gov</u>>
Subject: FW: Traffic Volume Review Request: Wilton

## Gary J. Sojka

Transportation Supervising Planner Connecticut Department of Transportation Bureau of Policy and Planning 2800 Berlin Turnpike Newington, CT 06111 Email: <u>gary.sojka@ct.gov</u> telephone: (860) 594-2025

From: Craig Yannes <<u>CDYannes@tigheBond.com</u>>
Date: Friday, April 23, 2021 at 9:57 AM
To: "Sojka, Gary J" <<u>Gary.Sojka@ct.gov</u>>
Cc: Jianhong Wang <<u>JWang@TigheBond.com</u>>
Subject: Traffic Volume Review Request: Wilton

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Gary,

Tighe & Bond is working on a project at 141 Danbury Road (on U.S. Route 7) in Wilton. The project will replace the existing ~47,040 square foot general office building with ~173 residential units in a 4-story building and ~319 parking spaces. Due to the proposed size of the development, an OSTA AD approval will be required. The driveway will remain in the existing location and no changes to Route 7 are proposed. The site is not currently certified by OSTA.

Based on the project information, we request a review of the following documents attached to facilitate the OSTA AD submission and traffic study of the area:

- A. <u>Trip Generation and Net New Trips:</u> Site generated traffic estimates for the existing office building and proposed residential development are provided in the attached table. Please let us know if you have any comments on the estimates. Also, as a general question, are we to consider all trips from the proposed residential development to be new since the site is not currently certified or can net, new traffic be included within the AD?
- B. <u>Existing Volumes</u>: Local Town approval will require a traffic study for the development and we are hoping that you could offer your advice on the existing/background traffic volumes for Route 7 in this area. Due to the impact of the pandemic on the existing office use and traffic on Route 7, we are proposing to utilize historical CTDOT ATR data and the trip generation estimates to establish the 2021 Existing Traffic Volumes at the site driveway intersection with Route 7. We have attached the available data, along with two options for the existing traffic volumes that we have calculated as follows:

<u>Option 1 – 2021 Volumes Based on 2014 ATR Data</u>: This option assumes 2021 volumes are equal to the 2014 ATR data, the peak data collected in the last 12 years.

<u>Option 2 – 2021 Volumes Based on 2017 ATR Data</u>: This option utilized the 2017 ATR data with a 0.6% growth rate to 2021. The growth rate was the same provided for the recent Wilton Corporate Park (60 Danbury Road, Wilton) OSTA AD 711 (OSTA No. 161-2004-01).

Both options are likely overly conservative and assume a significant rebound of traffic volumes by the end of 2021. Please let us know if you agree with one of the options or if you have an alternative that could more accurately represent existing conditions.

Note: The 2014 and 2017 ATR data were not collected by direction so the directional flows were estimated based on the 2011 and 2020 data that shows approximately 40% NB/60% SB during the weekday AM and 60% NB/40% SB during the weekday PM. And, the existing site generated traffic from the office use was split with 60% to/from the north and 40% to/from the south.

- C. <u>Growth Rate:</u> as mentioned above, an approximate 0.6% annual growth rate was utilized in previous projects in the area. Please let us know if that is sufficient for projection of the existing traffic volumes to a project opening year of 2023.
- D. <u>Other Developments</u>: based on our review of OSTA records, we do not see any recently approved/pending developments that would add significant traffic to the area. Please let us know if you agree.

Please let us know if you have any questions and have a nice weekend!

Craig

Craig D. Yannes, PE, PTOE, RSP1 | Project Manager Tighe&Bond | 1000 Bridgeport Avenue, Suite 320 | Shelton, CT 06484 | 203.712.1114 | Cell 203.530.1753 www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

RT Group has joined Tighe & Bond!

# APPENDIX C Capacity Analysis Methodology

# **CAPACITY ANALYSIS METHODOLOGY**

A primary result of capacity analysis is the assignment of levels of service to traffic facilities under various traffic flow conditions. The capacity analysis methodology is based on the concepts and procedures in the *Highway Capacity Manual* (HCM).<sup>1</sup> The concept of level of service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst. Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year. A description of the operating condition under each level of service is provided below:

- LOS A describes conditions with little to no delay to motorists.
- LOS B represents a desirable level with relatively low delay to motorists.
- LOS C describes conditions with average delays to motorists.
- *LOS D* describes operations where the influence of congestion becomes more noticeable. Delays are still within an acceptable range.
- *LOS E* represents operating conditions with high delay values. This level is considered by many agencies to be the limit of acceptable delay.
- *LOS F* is considered to be unacceptable to most drivers with high delay values that often occur, when arrival flow rates exceed the capacity of the intersection.

## Signalized Intersections

Levels of service for signalized intersections are also calculated using the operational analysis methodology of the HCM. The methodology for signalized intersections assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on average *control* delay. Control delay is used to establish the operating characteristics for an intersection or an approach to an intersection. Volume-to-capacity (v/c) ratios are also used to help signify the utilization of a lane group's capacity at an intersection. A v/c ratio of  $\geq 1.00$  represents conditions when the traffic signal cycle capacity is fully utilized and indicates a capacity failure. The level-of-service criteria for signalized intersections are shown in Table A-1.

<sup>&</sup>lt;sup>1</sup>*Highway Capacity Manual,* 6<sup>TH</sup> *Edition: A Guide for Multimodal Mobility Analysis.* Washington, D.C.: Transportation Research Board, 2016.

## **Unsignalized Intersections**

Levels of service for unsignalized intersections are calculated using the operational analysis methodology of the HCM. The procedure accounts for lane configuration on both the minor and major street approaches, conflicting traffic stream volumes, and the type of intersection control (STOP, YIELD, or all-way STOP control). The definition of level of service for unsignalized intersections is a function of average *control* delay. Control delay at an unsignalized intersection is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. This time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position.

Volume-to-capacity (v/c) ratios are also used to help signify the utilization of a movement's capacity at an intersection. A v/c ratio of  $\geq 1.00$  represents conditions when the movement is fully utilized and indicates a capacity failure. The capacity of the movements is based on the distribution of gaps in the major street traffic stream, the selection of gaps to complete the desired movement, and the follow-up headways for each driver in the queue. When an unsignalized intersection is located within 0.25 miles of a signalized intersection, traffic flows may not be random and some platoon structure may exist, thereby affecting the minor street operations. The level-of-service criteria for unsignalized intersections are shown in Table A-1.

### TABLE A-1

| Level of<br>Service | <b>Signalized</b><br><b>Intersection Criteria</b><br>Average Control Delay<br>(Seconds per Vehicle) | Unsignalized<br>Intersection Criteria<br>Average Control Delay<br>(Seconds per Vehicle) | V/C Ratio >1.00ª |
|---------------------|---|---|------------------|
| А                   | ≤10   | ≤10   | F                |
| В                   | >10 and $\leq$ 20   | >10 and ≤15   | F                |
| С                   | >20 and ≤35   | >15 and ≤25   | F                |
| D                   | >35 and ≤55   | >25 and ≤35   | F                |
| Е                   | >55 and ≤80   | >35 and ≤50   | F                |
| F                   | >80   | >50   | F                |

Level-of-Service Criteria for Intersections

Note: <sup>a</sup>For approach-based and intersection-wide assessments, LOS is defined solely by control delay.

Source: *Highway Capacity Manual, 6th Edition: A Guide for Multimodal Mobility Analysis.* Washington, D.C.: Transportation Research Board, 2016. Exhibit 19-8, Pg. 19-16.

For signalized intersections, this delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to the entire intersection. For unsignalized intersections, this delay criterion may be applied in assigning level-of-service designations to individual lane groups on the minor street approaches or to the left turns from the major street approaches.

APPENDIX D Capacity Analysis Worksheets

| Int Delay, s/veh       | 0.6  |      |      |              |      |      |
|------------------------|------|------|------|--------------|------|------|
| Movement               | EBL  | EBR  | NBL  | NBT          | SBT  | SBR  |
| Lane Configurations    | Y    |      |      | - <b>€</b> † | ţ,   |      |
| Traffic Vol, veh/h     | 5    | 3    | 19   | 908          | 1341 | 28   |
| Future Vol, veh/h      | 5    | 3    | 19   | 908          | 1341 | 28   |
| Conflicting Peds, #/hr | 0    | 0    | 0    | 0            | 0    | 0    |
| Sign Control           | Stop | Stop | Free | Free         | Free | Free |
| RT Channelized         | -    | None | -    | None         | -    | None |
| Storage Length         | 0    | -    | -    | -            | -    | -    |
| Veh in Median Storage  | ,# 0 | -    | -    | 0            | 0    | -    |
| Grade, %               | 0    | -    | -    | 0            | 0    | -    |
| Peak Hour Factor       | 92   | 92   | 92   | 92           | 92   | 92   |
| Heavy Vehicles, %      | 6    | 6    | 6    | 6            | 6    | 6    |
| Mvmt Flow              | 5    | 3    | 21   | 987          | 1458 | 30   |

| Major/Minor          | Minor2 | 1     | Major1 | Ν     | /lajor2 |     |
|----------------------|--------|-------|--------|-------|---------|-----|
| Conflicting Flow All | 2009   | 1473  | 1488   | 0     | -       | 0   |
| Stage 1              | 1473   | -     | -      | -     | -       | -   |
| Stage 2              | 536    | -     | -      | -     | -       | -   |
| Critical Hdwy        | 6.69   | 6.29  | 4.19   | -     | -       | -   |
| Critical Hdwy Stg 1  | 5.49   | -     | -      | -     | -       | -   |
| Critical Hdwy Stg 2  | 5.89   | -     | -      | -     | -       | -   |
| Follow-up Hdwy       | 3.557  | 3.357 | 2.257  | -     | -       | -   |
| Pot Cap-1 Maneuver   | 56     | 150   | 434    | -     | -       | -   |
| Stage 1              | 203    | -     | -      | -     | -       | -   |
| Stage 2              | 542    | -     | -      | -     | -       | -   |
| Platoon blocked, %   |        |       |        | -     | -       | -   |
| Mov Cap-1 Maneuver   | 50     | 150   | 434    | -     | -       | -   |
| Mov Cap-2 Maneuver   | 50     | -     | -      | -     | -       | -   |
| Stage 1              | 181    | -     | -      | -     | -       | -   |
| Stage 2              | 542    | -     | -      | -     | -       | -   |
|                      |        |       |        |       |         |     |
| Approach             | EB     |       | NB     |       | SB      |     |
| HCM Control Delay, s |        |       | 1      |       | 0       |     |
| HCM LOS              | F      |       | 1      |       | U       |     |
|                      | 1      |       |        |       |         |     |
|                      |        |       |        |       |         |     |
| Minor Lane/Major Mvi | nt     | NBL   | NBT I  | EBLn1 | SBT     | SBR |
| Capacity (veh/h)     |        | 434   | -      | 67    | -       | -   |
| HCM Lane V/C Ratio   |        | 0.048 | -      | 0.13  | -       | -   |
| HCM Control Delay (s | 5)     | 13.7  | 0.7    | 66.6  | -       | -   |
| HCM Lane LOS         |        | В     | А      | F     | -       | -   |

0.1

0.4

-

HCM 95th %tile Q(veh)

Int Delay, s/veh 1.4 EBL Movement EBR NBL NBT SBT SBR **4↑** 1380 Y Lane Configurations Þ 934 28 Traffic Vol, veh/h 19 5 4 Future Vol, veh/h 28 19 4 1380 934 5 Conflicting Peds, #/hr 0 0 0 0 0 0 Sign Control Stop Stop Free Free Free Free RT Channelized -None -None -None Storage Length 0 -----Veh in Median Storage, # 0 --0 0 -Grade, % 0 0 0 ---Peak Hour Factor 92 92 92 92 92 92 Heavy Vehicles, % 6 6 6 6 6 6 Mvmt Flow 30 21 4 1500 1015 5

| Major/Minor                     | Minor2    |       | Major1 | Ν     | /lajor2 |     |
|---------------------------------|-----------|-------|--------|-------|---------|-----|
| Conflicting Flow All            | 1776      | 1018  | 1020   | 0     | -       | 0   |
| Stage 1                         | 1018      | -     | -      | -     | -       | -   |
| Stage 2                         | 758       | -     | -      | -     | -       | -   |
| Critical Hdwy                   | 6.69      | 6.29  | 4.19   | -     | -       | -   |
| Critical Hdwy Stg 1             | 5.49      | -     | -      | -     | -       | -   |
| Critical Hdwy Stg 2             | 5.89      | -     | -      | -     | -       | -   |
| Follow-up Hdwy                  | 3.557     | 3.357 | 2.257  | -     | -       | -   |
| Pot Cap-1 Maneuver              | 79        | 280   | 659    | -     | -       | -   |
| Stage 1                         | 340       | -     | -      | -     | -       | -   |
| Stage 2                         | 416       | -     | -      | -     | -       | -   |
| Platoon blocked, %              |           |       |        | -     | -       | -   |
| Mov Cap-1 Maneuver              | 76        | 280   | 659    | -     | -       | -   |
| Mov Cap-2 Maneuver              | 76        | -     | -      | -     | -       | -   |
| Stage 1                         | 328       | -     | -      | -     | -       | -   |
| Stage 2                         | 416       | -     | -      | -     | -       | -   |
|                                 |           |       |        |       |         |     |
| Approach                        | EB        |       | NB     |       | SB      |     |
|                                 |           |       | 0.2    |       | 0       |     |
| HCM Control Delay, s<br>HCM LOS | 65.2<br>F |       | 0.2    |       | 0       |     |
|                                 | Г         |       |        |       |         |     |
|                                 |           |       |        |       |         |     |
| Minor Lane/Major Mvr            | nt        | NBL   | NBT E  | EBLn1 | SBT     | SBR |
| Capacity (veh/h)                |           | 659   | -      | 108   | -       | -   |
|                                 |           | 0.007 |        | 0 470 |         |     |

|                       | 000   |     | 100   |   |   |
|-----------------------|-------|-----|-------|---|---|
| HCM Lane V/C Ratio    | 0.007 | -   | 0.473 | - | - |
| HCM Control Delay (s) | 10.5  | 0.2 | 65.2  | - | - |
| HCM Lane LOS          | В     | А   | F     | - | - |
| HCM 95th %tile Q(veh) | 0     | -   | 2.1   | - | - |

| 0.6    |   |   |  |   |   |
|--------|---|---|--|---|---|
| EBL    | EBR   | NBL   | NBT  | SBT   | SBR   |
| Y      |   |   | -۠   | et i  |   |
| 5      | 3   | 19  | 919  | 1357  | 28  |
| 5      | 3   | 19  | 919  | 1357  | 28  |
| 0      | 0   | 0   | 0  | 0   | 0   |
| Stop   | Stop  | Free  | Free   | Free  | Free  |
| -      | None  | -   | None   | -   | None  |
| 0      | -   | -   | -  | -   | -   |
| e, # 0 | -   | -   | 0  | 0   | -   |
| 0      | -   | -   | 0  | 0   | -   |
| 92     | 92  | 92  | 92   | 92  | 92  |
| 6      | 6   | 6   | 6  | 6   | 6   |
| 5      | 3   | 21  | 999  | 1475  | 30  |
|        | EBL<br>5<br>5<br>0<br>Stop<br>-<br>0<br>, # 0<br>0<br>92<br>6 | EBL         EBR           Y         S           5         3           5         3           0         0           Stop         Stop           Stop         Stop           , # 0         -           92         92           6         6 | EBL         EBR         NBL           ✔             5         3         19           5         3         19           0         0         0           Stop         Stop         Free           -         None         -           0         -         -           , # 0         -         -           92         92         92           6         6         6 | EBL         EBR         NBL         NBT           ✓         ✓         ✓         ✓           5         3         19         919           5         3         19         919           0         0         0         0           Stop         Stop         Free         Free           None         -         None         -           0         -         -         0           0         -         -         0           0         -         -         0           92         92         92         92           6         6         6         6 | EBL         EBR         NBL         NBT         SBT           Y |

| Major/Minor N        | Minor2    | 1     | Major1 | Ν    | /lajor2 |     |
|----------------------|-----------|-------|--------|------|---------|-----|
| Conflicting Flow All | 2032      | 1490  | 1505   | 0    | -       | 0   |
| Stage 1              | 1490      | -     | -      | -    | -       | -   |
| Stage 2              | 542       | -     | -      | -    | -       | -   |
| Critical Hdwy        | 6.69      | 6.29  | 4.19   | -    | -       | -   |
| Critical Hdwy Stg 1  | 5.49      | -     | -      | -    | -       | -   |
| Critical Hdwy Stg 2  | 5.89      | -     | -      | -    | -       | -   |
| Follow-up Hdwy       | 3.557     | 3.357 |        | -    | -       | -   |
| Pot Cap-1 Maneuver   | 54        | 147   | 427    | -    | -       | -   |
| Stage 1              | 199       | -     | -      | -    | -       | -   |
| Stage 2              | 539       | -     | -      | -    | -       | -   |
| Platoon blocked, %   |           |       |        | -    | -       | -   |
| Mov Cap-1 Maneuver   | 48        | 147   | 427    | -    | -       | -   |
| Mov Cap-2 Maneuver   | 48        | -     | -      | -    | -       | -   |
| Stage 1              | 177       | -     | -      | -    | -       | -   |
| Stage 2              | 539       | -     | -      | -    | -       | -   |
|                      |           |       |        |      |         |     |
| Approach             | EB        |       | NB     |      | SB      |     |
| HCM Control Delay, s | 69.9      |       | 1      |      | 0       |     |
| HCM LOS              | 09.9<br>F |       |        |      | 0       |     |
|                      | I         |       |        |      |         |     |
|                      |           |       |        |      |         |     |
| Minor Lane/Major Mvm | nt        | NBL   | NBT E  | BLn1 | SBT     | SBR |
| Capacity (veh/h)     |           | 427   | -      | 64   | -       | -   |

|                       |       |     | • •   |   |   |
|-----------------------|-------|-----|-------|---|---|
| HCM Lane V/C Ratio    | 0.048 | -   | 0.136 | - | - |
| HCM Control Delay (s) | 13.9  | 0.7 | 69.9  | - | - |
| HCM Lane LOS          | В     | A   | F     | - | - |
| HCM 95th %tile Q(veh) | 0.2   | -   | 0.4   | - | - |

Int Delay, s/veh 1.5 EBL Movement EBR NBL NBT SBT SBR **4↑** 1397 Y Lane Configurations Þ 28 945 Traffic Vol, veh/h 19 5 4 Future Vol, veh/h 28 19 4 1397 945 5 Conflicting Peds, #/hr 0 0 0 0 0 0 Sign Control Stop Stop Free Free Free Free RT Channelized -None -None -None Storage Length 0 -----Veh in Median Storage, # 0 --0 0 -Grade, % 0 0 0 ---Peak Hour Factor 92 92 92 92 92 92 Heavy Vehicles, % 6 6 6 6 6 6 Mvmt Flow 30 21 4 1518 1027 5

| Major/Minor          | Minor2 | 1    | Major1 | Ν   | /lajor2 |     |
|----------------------|--------|------|--------|-----|---------|-----|
| Conflicting Flow All | 1797   | 1030 | 1032   | 0   | -       | 0   |
| Stage 1              | 1030   | -    | -      | -   | -       | -   |
| Stage 2              | 767    | -    | -      | -   | -       | -   |
| Critical Hdwy        | 6.69   | 6.29 | 4.19   | -   | -       | -   |
| Critical Hdwy Stg 1  | 5.49   | -    | -      | -   | -       | -   |
| Critical Hdwy Stg 2  | 5.89   | -    | -      | -   | -       | -   |
| Follow-up Hdwy       | 3.557  |      | 2.257  | -   | -       | -   |
| Pot Cap-1 Maneuver   | 77     | 276  | 652    | -   | -       | -   |
| Stage 1              | 335    | -    | -      | -   | -       | -   |
| Stage 2              | 412    | -    | -      | -   | -       | -   |
| Platoon blocked, %   |        |      |        | -   | -       | -   |
| Mov Cap-1 Maneuver   | 74     | 276  | 652    | -   | -       | -   |
| Mov Cap-2 Maneuver   | 74     | -    | -      | -   | -       | -   |
| Stage 1              | 322    | -    | -      | -   | -       | -   |
| Stage 2              | 412    | -    | -      | -   | -       | -   |
|                      |        |      |        |     |         |     |
| Approach             | EB     |      | NB     |     | SB      |     |
| HCM Control Delay, s | 68.2   |      | 0.2    |     | 0       |     |
| HCM LOS              | F      |      |        |     | v       |     |
|                      |        |      |        |     |         |     |
|                      | 1      | NDI  |        |     | ODT     | 000 |
| Minor Lane/Major Mvm | It     | NBL  | NBT E  |     | SBT     | SBR |
| Capacity (veh/h)     |        | 652  | -      | 105 | -       | -   |

| HCM Lane V/C Ratio    | 0.007 | - ( | ).487 | - | - |
|-----------------------|-------|-----|-------|---|---|
| HCM Control Delay (s) | 10.6  | 0.2 | 68.2  | - | - |
| HCM Lane LOS          | В     | А   | F     | - | - |
| HCM 95th %tile Q(veh) | 0     | -   | 2.2   | - | - |

Int Delay, s/veh 1.5 EBL Movement EBR NBL NBT SBT SBR Lane Configurations ٦ 1 41 Þ 1357 18 919 Traffic Vol, veh/h 28 10 6 Future Vol, veh/h 18 28 10 919 1357 6 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 ----Veh in Median Storage, # 0 --0 0 -Grade, % 0 0 0 ---Peak Hour Factor 92 92 92 92 92 92 Heavy Vehicles, % 6 6 6 6 6 6 Mvmt Flow 20 30 11 999 1475 7

| Major/Minor          | Minor2 |       | Major1 | Ma | jor2 |   |
|----------------------|--------|-------|--------|----|------|---|
| Conflicting Flow All | 2001   | 1479  | 1482   | 0  | -    | 0 |
| Stage 1              | 1479   | -     | -      | -  | -    | - |
| Stage 2              | 522    | -     | -      | -  | -    | - |
| Critical Hdwy        | 6.69   | 6.29  | 4.19   | -  | -    | - |
| Critical Hdwy Stg 1  | 5.49   | -     | -      | -  | -    | - |
| Critical Hdwy Stg 2  | 5.89   | -     | -      | -  | -    | - |
| Follow-up Hdwy       |        | 3.357 |        | -  | -    | - |
| Pot Cap-1 Maneuver   | 56     | 149   | 436    | -  | -    | - |
| Stage 1              | 202    | -     | -      | -  | -    | - |
| Stage 2              | 551    | -     | -      | -  | -    | - |
| Platoon blocked, %   |        |       |        | -  | -    | - |
| Mov Cap-1 Maneuver   |        | 149   | 436    | -  | -    | - |
| Mov Cap-2 Maneuver   | 53     | -     | -      | -  | -    | - |
| Stage 1              | 190    | -     | -      | -  | -    | - |
| Stage 2              | 551    | -     | -      | -  | -    | - |
|                      |        |       |        |    |      |   |
| Approach             | EB     |       | NB     |    | SB   |   |
| HCM Control Delay, s |        |       | 0.5    |    | 0    |   |
| HCM LOS              |        |       | 0.0    |    | 0    |   |
|                      | 1      |       |        |    |      |   |
|                      |        |       |        |    |      |   |

| Minor Lane/Major Mvmt | NBL   | NBT EE | 3Ln1 E | EBLn2 | SBT | SBR |  |
|-----------------------|-------|--------|--------|-------|-----|-----|--|
| Capacity (veh/h)      | 436   | -      | 53     | 149   | -   | -   |  |
| HCM Lane V/C Ratio    | 0.025 | - 0    | .369   | 0.204 | -   | -   |  |
| HCM Control Delay (s) | 13.5  | 0.4 1  | 08.3   | 35.3  | -   | -   |  |
| HCM Lane LOS          | В     | А      | F      | Е     | -   | -   |  |
| HCM 95th %tile Q(veh) | 0.1   | -      | 1.3    | 0.7   | -   | -   |  |

| Int Delay, s/veh       | 1.7  |      |      |              |      |      |   |
|------------------------|------|------|------|--------------|------|------|---|
| Movement               | EBL  | EBR  | NBL  | NBT          | SBT  | SBR  | ł |
| Lane Configurations    | ٢    | 1    |      | - <b>€</b> † | ħ    |      |   |
| Traffic Vol, veh/h     | 12   | 18   | 28   | 1397         | 945  | 18   | ; |
| Future Vol, veh/h      | 12   | 18   | 28   | 1397         | 945  | 18   | ; |
| 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    | -    | -            | -    | -    | - |
| Veh in Median Storage, | # 0  | -    | -    | 0            | 0    | -    | - |
| Grade, %               | 0    | -    | -    | 0            | 0    | -    |   |
| Peak Hour Factor       | 92   | 92   | 92   | 92           | 92   | 92   | į |
| Heavy Vehicles, %      | 6    | 6    | 6    | 6            | 6    | 6    | ; |
| Mvmt Flow              | 13   | 20   | 30   | 1518         | 1027 | 20   | 1 |

| Minor2    | I  | Major1   | Мај   | or2  |  |
|-----------|--|--|---|--|--|
| 1856      | 1037   | 1047   | 0   | -  | 0  |
| 1037      | -  | -  | -   | -  | -  |
| 819       | -  | -  | -   | -  | -  |
| 6.69      | 6.29   | 4.19   | -   | -  | -  |
| 5.49      | -  | -  | -   | -  | -  |
| 5.89      | -  | -  | -   | -  | -  |
| 3.557     | 3.357  | 2.257  | -   | -  | -  |
| 70        | 273  | 643  | -   | -  | -  |
| 333       | -  | -  | -   | -  | -  |
| 387       | -  | -  | -   | -  | -  |
|           |  |  | -   | -  | -  |
|           | 273  | 643  | -   | -  | -  |
| 49        | -  | -  | -   | -  | -  |
| 234       | -  | -  | -   | -  | -  |
| 387       | -  | -  | -   | -  | -  |
|           |  |  |   |  |  |
| EB        |  | NB   |   | SB   |  |
|           |  |  |   |  |  |
| 52.0<br>F |  | 1.0  |   | 9  |  |
|           | 1037<br>819<br>6.69<br>5.49<br>3.557<br>70<br>333<br>387<br>49<br>49<br>234<br>387<br>EB<br>52.8 | 1856       1037         1037       -         819       -         6.69       6.29         5.49       -         3.557       3.357         70       273         333       -         387       -         49       273         49       -         234       -         387       -         EB       52.8 | 1856       1037       1047         1037       -       -         819       -       -         6.69       6.29       4.19         5.49       -       -         3.557       3.357       2.257         70       273       643         333       -       -         387       -       -         234       -       -         387       -       -         234       -       -         387       -       -         234       -       -         255       -       -         887       -       -         234       -       -         252.8       NB | 1856       1037       1047       0         1037       -       -         819       -       -         6.69       6.29       4.19       -         5.49       -       -         3.557       3.357       2.257       -         70       273       643       -         333       -       -       -         387       -       -       -         49       273       643       -         234       -       -       -         387       -       -       -         234       -       -       -         387       -       -       -         234       -       -       -         287       -       -       -         287       -       -       -         234       -       -       -         52.8       1.8       1.8       - | 1856       1037       1047       0       -         1037       -       -       -       -         819       -       -       -       -         6.69       6.29       4.19       -       -         5.49       -       -       -       -         5.89       -       -       -       -         3.557       3.357       2.257       -       -         70       273       643       -       -         333       -       -       -       -         387       -       -       -       -         49       273       643       -       -         234       -       -       -       -         234       -       -       -       -         387       -       -       -       -         387       -       -       -       -         387       -       -       -       -         234       -       -       -       -         EB       NB       SB       52.8       1.8       0 |

| Minor Lane/Major Mvmt | NBL   | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h)      | 643   | -   | 49    | 273   | -   | -   |
| HCM Lane V/C Ratio    | 0.047 | -   | 0.266 | 0.072 | -   | -   |
| HCM Control Delay (s) | 10.9  | 1.6 | 103.3 | 19.2  | -   | -   |
| HCM Lane LOS          | В     | А   | F     | С     | -   | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | 0.9   | 0.2   | -   | -   |