

# Lenhart Traffic Consulting, Inc.

Transportation Planning & Traffic Engineering

## Memorandum:

*Date:* May 21, 2025

TO: M-NCPPC  
Upcounty Planning  
2425 Reedie Drive, 14<sup>th</sup> Floor  
Wheaton, MD 20902

FROM: Nick Driban, P.E., PTOE

RE: Traffic Statement for 14301 Comus Drive – Landscaping Company

This memorandum has been prepared to support the Transportation Adequacy Form for the 14301 Comus Drive development. The property is located in the Rural West Policy Area on the north side of Comus Road just west of the intersection of MD 355 and Comus Road (west of the overpass of I-270). A site location map is shown on **Exhibit 1** and a concept plan is proved in Appendix A.

The Growth and Infrastructure Policy establishes the “Local Area Transportation Review (LATR)”. These Guidelines are utilized by the Montgomery County Planning Board for the Administration of the Adequate Public Facilities Ordinance. The analysis in this memorandum is based on the January 2025 edition of the LATR Guidelines.

The property is currently undeveloped and is proposed to be developed with a landscaping company. The site will host a maximum of 25 employees based on information provided by the employer. The make-up of these employees includes 3 office staff, 1 mechanic, and a maximum of 6 landscaping crews with 3-4 people on each crew (21 landscapers total).

The attached Trip Generation Table, included as **Exhibit 2**, contains the trip generation totals for the proposed use. The trip generation is shown in two ways: The top portion of the exhibit details the trip breakdown based on trip information provided by the employer. The bottom portion details the trip generation based on trip generation for the land use ITE-818 (Nursery) from the *ITE Trip Generation Manual, 11<sup>th</sup> Edition*. It should be noted that landscaping businesses do not have an exact ITE Trip Generation land use match, however the Nursery land use, for which a description is provided in Appendix A, represents the closest similar land use.

The employer provided trip generation totals were determined based on the following information provided by the owner of the site regarding regular site operations:

- 21 Landscapers arrive at the property at 5:30 AM, typically in individual vehicles and then depart to their respective sites in 6 vehicles, one for each crew of 3-4 people each. Crews arrive back at the property around 2:30 PM in their company vehicles, then depart individually around 3:30 PM.
- 1 mechanic arrives at the property at 8:00 AM and departs at 5:00 PM.
- 3 office staff arrive at the property at 9:00 AM and depart at 5:00 PM.

As detailed above, the majority of site trips occur outside the peak periods defined in the county’s LATR Guidelines (6:30-9:30 AM and 4:00-7:00 PM). During the morning peak period, the landscape crews depart the property in 6 vehicles and the mechanic and office staff arrive at the site. However, these trips do not occur during the same peak hour within the morning period. There are more landscaping-crew trips

### Exhibit 33

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OZAH Case No: CU 25-06

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# Lenhart Traffic Consulting, Inc.

## Transportation Planning & Traffic Engineering

during the morning peak period, so these have been included as the subject of the AM peak hour trip generation analysis. During the evening peak period, the mechanic and office staff depart the property. No landscape employee trips, either in or out of the site, are expected to occur during the evening peak period (4:00-7:00 PM). Based on this information, the site is expected to generate 6 vehicle trips during the morning peak hour and 4 vehicle trips during the evening peak hour.

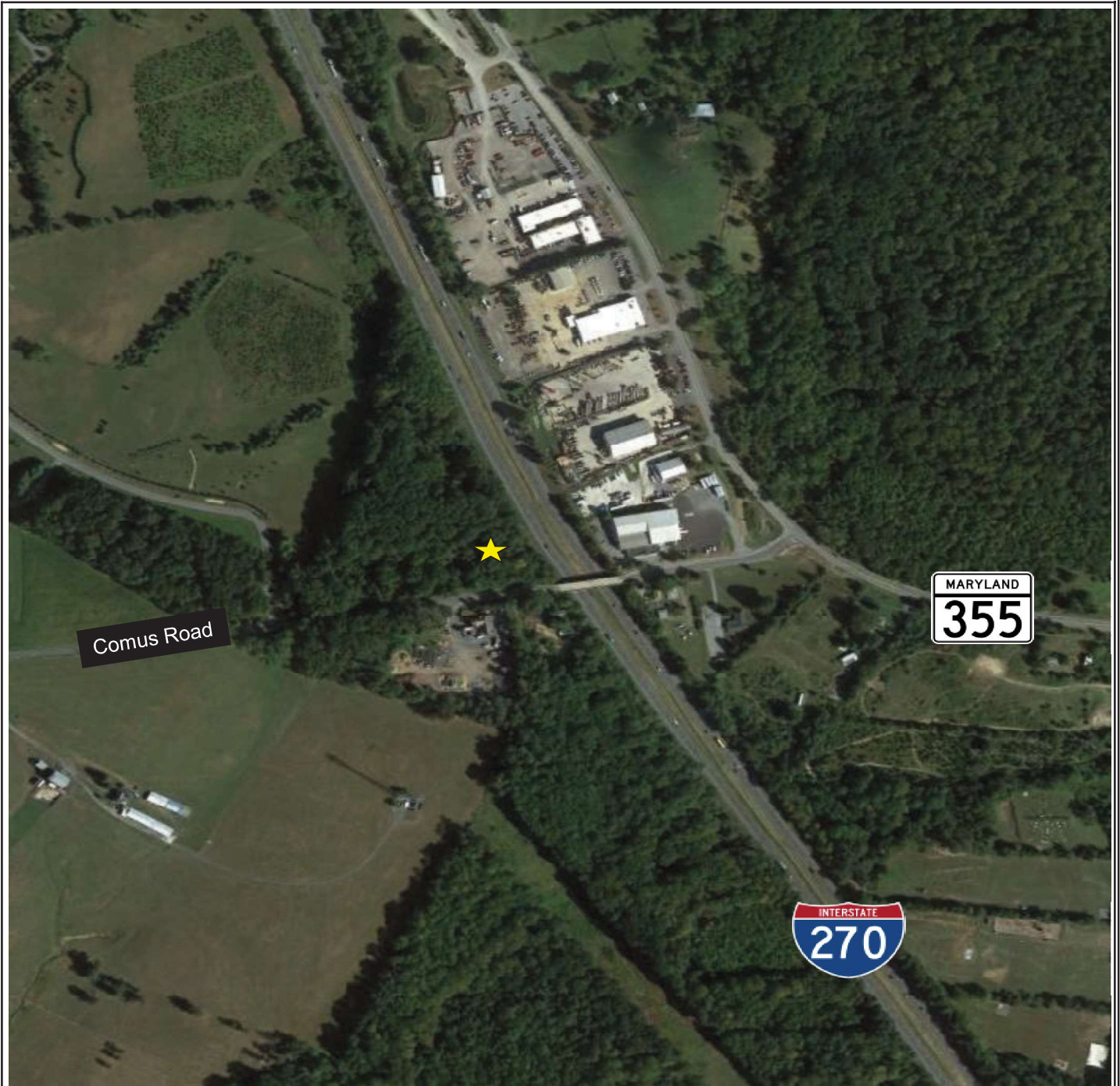
The ITE trip generation analysis for the site, using ITE-818 (Nursery) with the county's applicable LATR adjustment factors for the Rural West Policy Area, provides similar results to the employer-provided trip generation analysis, resulting in 8 vehicle trips during the morning peak hour and 9 vehicle trips during the evening peak hour.

Provided in Appendix A, a 2013 SHA traffic count at the intersection of MD 355 & Comus Road identifies the level of service at the intersection as LOS A, the best-possible level of service, during both the AM- and PM peak hour. Additionally, historical traffic volume data along Comus Road at a location 0.20 miles west of MD 355 shows that volumes in 2022 were approximately 20% lower than volumes from 2014-2019. Based on the available traffic data, there are no operational traffic issues in the immediate vicinity of the site.

Based on the above information, the proposed development is exempt from the requirement to conduct a full LATR Study, as the site generates a de-minimis impact of fewer than 30 vehicle trips during the peak periods when analyzed using both site-specific trip generation data provided by the owner and the ITE Trip Generation Manual.

Based on the information contained in this report:

- The project is located in the Rural West Policy Area.
- The project generates fewer than 30 new vehicular peak hour trips and is therefore exempt from requiring an LATR Study.



Traffic Impact Analysis

Site Location Map

**Exhibit**  
**1**



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- Site Location

### Employer Provided Trip Generation

(see Notes 1 and 2)

|                                                                            |                                       | AM Peak  |          |          | PM Peak  |          |          | Daily Trips |
|----------------------------------------------------------------------------|---------------------------------------|----------|----------|----------|----------|----------|----------|-------------|
|                                                                            |                                       | In       | Out      | Total    | In       | Out      | Total    |             |
| Proposed 14301 Comus Drive                                                 | 3 Office Staff                        | 0        | 0        | 0        | 0        | 3        | 3        | 6           |
|                                                                            | 1 Mechanic                            | 0        | 0        | 0        | 0        | 1        | 1        | 2           |
|                                                                            | 21 Landscapers<br>(6 crews of 3 or 4) | 0        | 6        | 6        | 0        | 0        | 0        | 54          |
| <b>Total Vehicular Trips per Employer Information (see Notes 1 and 2):</b> |                                       | <b>0</b> | <b>6</b> | <b>6</b> | <b>0</b> | <b>4</b> | <b>4</b> | <b>62</b>   |

**Notes:**

1. The applicant has provided the following information regarding regular site operations:
  - a. 21 Landscapers arrive at the property at 5:30 AM, typically in individual vehicles and then depart to their respective sites in 6 vehicles for each crew of 3-4 people each. They arrive back to the property around 2:30 PM and depart individually around 3:30 PM.
  - b. 1 mechanic arrives to the property at 8:00 AM and departs at 5:00 PM.
  - c. 3 Office/Admin staff arrives at the property at 9:00 AM and departs at 5:00 PM.
2. The majority of site trips occur outside of the peak periods (6:30 AM - 9:30 AM and 4:00 PM - 7:00 PM)
  - a. During the morning peak period, the landscape crews depart the property in 6 vehicles and the mechanic/office staff arrives at the property. However, these trips do not occur during the same hour, and the landscape trips are more impactful.
  - b. During the evening peak period, the mechanic and office/admin staff departs at the property.

### ITE Trip Generation Rates

**Nursery (Wholesale) (Employees, ITE-818)**

Morning Trips = .30 x Employees

Evening Trips = .36 x Employees

**Trip Distribution (In/Out)**

80/20

20/80

(see Note 1)

### ITE Trip Generation

|                                                                        |              | AM Peak  |          |          | PM Peak  |          |          | Daily Trips |
|------------------------------------------------------------------------|--------------|----------|----------|----------|----------|----------|----------|-------------|
|                                                                        |              | In       | Out      | Total    | In       | Out      | Total    |             |
| Nursery (Wholesale) (Employees, ITE-818)                               | 25 Employees | 6        | 2        | 8        | 2        | 7        | 9        | 85          |
| Total Vehicular Trips per ITE Trip Generation Manual, 11th Edition:    |              | 6        | 2        | 8        | 2        | 7        | 9        | 85          |
| LATR Vehicle Trip Generation Rate Adjustment Factor (Rural West): 100% |              |          |          |          |          |          |          |             |
| <b>LATR Adjusted Vehicular Trips (Residential):</b>                    |              | <b>6</b> | <b>2</b> | <b>8</b> | <b>2</b> | <b>7</b> | <b>9</b> | <b>85</b>   |

**Notes:**

1. Trip Distribution splits are not provided for the ITE-818 land use for the AM or PM peak hours. A 80/20 and 20/80 (In/Out) Trip Distribution was assumed for the AM and PM peak hours, respectively.
2. Trip Generation Rates obtained from the ITE Trip Generation Manual, 11th Edition.
3. ITE does not provide daily trip generation rates for ITE-818 with employees as the independent variable. The daily trips were determined by taking the average of the AM and PM peak hour trip generation and applying a K-factor of 0.1.

Traffic Impact Analysis

Site Trip Generation

**Exhibit**

**2**

# Appendix A

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Supplemental Information





# Land Use: 818

## Nursery (Wholesale)

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### Description

A wholesale nursery is a free-standing building with an outside storage area for planting or landscape stock. The nurseries surveyed primarily serve contractors and suppliers. Some have large greenhouses and offer landscaping services. Most have office, storage, and shipping facilities.

Nurseries are characterized by seasonal variations in trip characteristics. Nursery (garden center) (Land Use 817) is a related use.

### Additional Data

An outside storage area is not included in the overall gross floor area measurements. However, if the storage area is located within the principal outside faces of the exterior walls, it is included in the overall gross floor area of the building.

The sites were surveyed in the 1980s in California.

### Source Numbers

205, 240

# Nursery (Wholesale) (818)

## Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 7

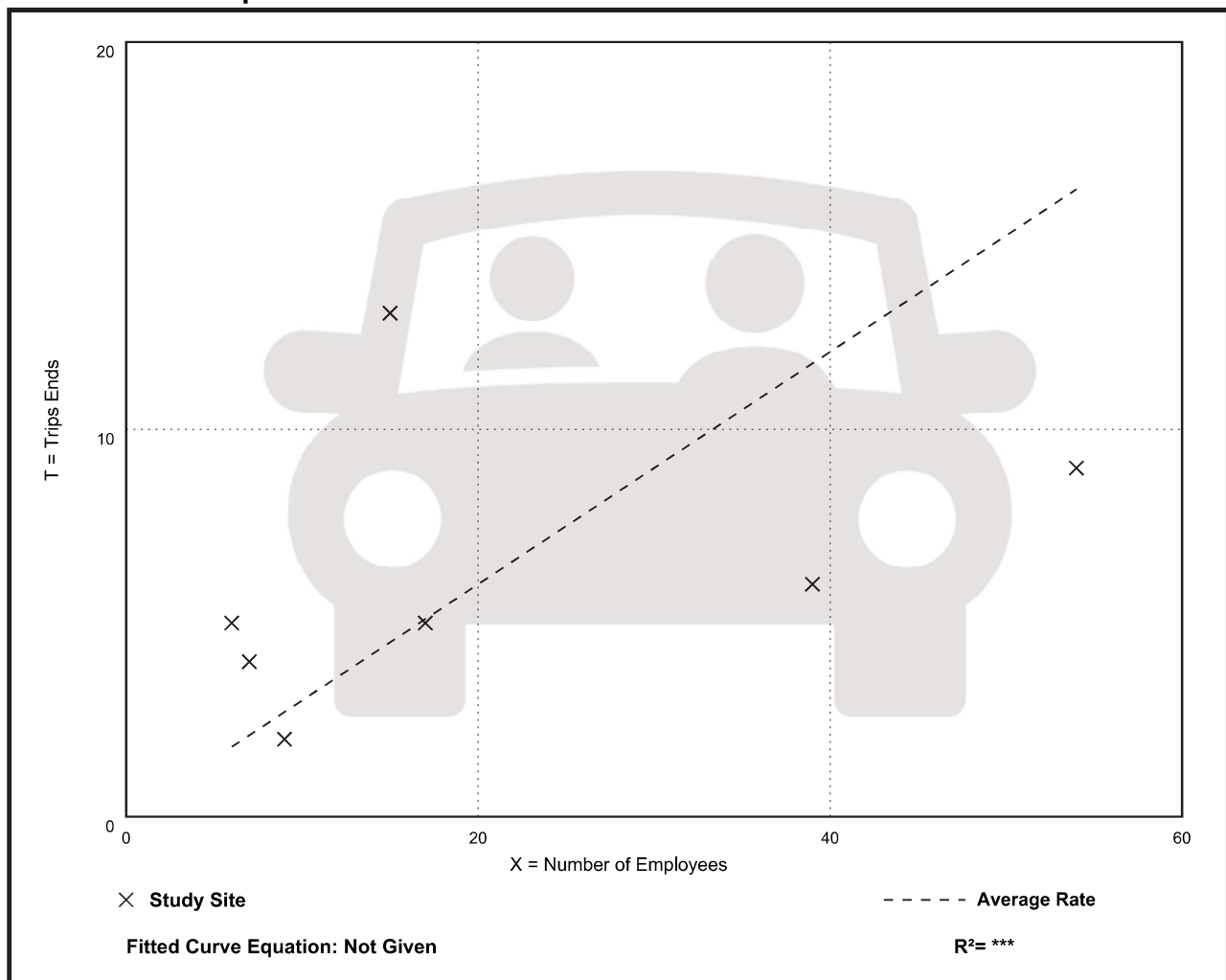
Avg. Num. of Employees: 21

Directional Distribution: Not Available

## Vehicle Trip Generation per Employee

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.30         | 0.15 - 0.87    | 0.27               |

## Data Plot and Equation





# Nursery (Wholesale) (818)

## Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 5

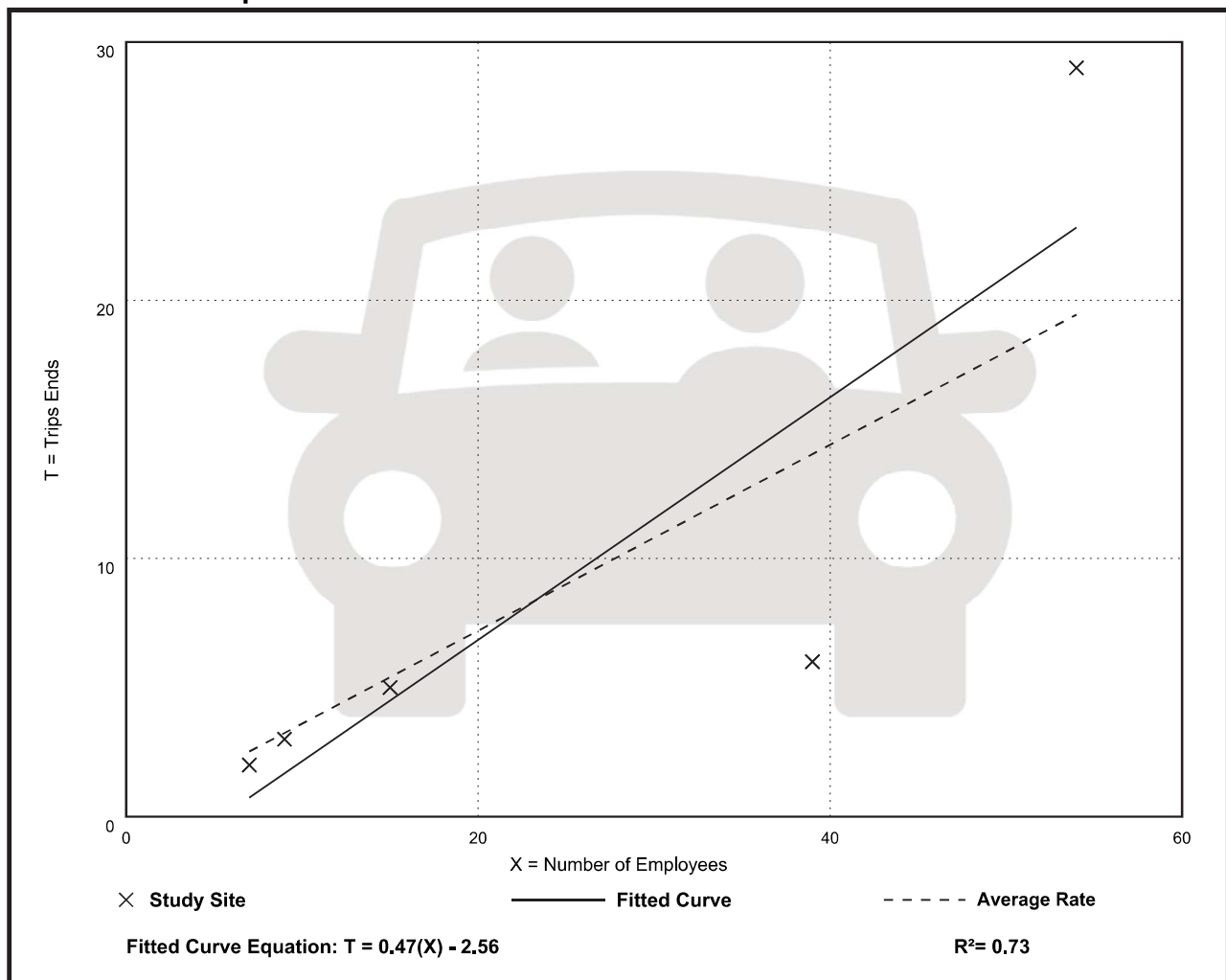
Avg. Num. of Employees: 25

Directional Distribution: Not Available

## Vehicle Trip Generation per Employee

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.36         | 0.15 - 0.54    | 0.19               |

## Data Plot and Equation



# Appendix 1. Trip Adjustment Factors

**Appendix Table 1-1: Policy Area Trip Generation Rate Adjustment Factors**

| <b>Policy Area</b>                   | <b>Residential (%)</b> | <b>Office (%)</b> | <b>Retail (%)</b> | <b>Other (%)</b> |
|--------------------------------------|------------------------|-------------------|-------------------|------------------|
| 1 Aspen Hill                         | 97                     | 98                | 99                | 97               |
| 2 Bethesda CBD                       | 79                     | 63                | 61                | 62               |
| 3 Bethesda/Chevy Chase               | 87                     | 81                | 85                | 79               |
| 4 Burtonsville Town Center           | 96                     | 96                | 99                | 97               |
| 5 Chevy Chase Lake                   | 87                     | 81                | 85                | 79               |
| 6 Clarksburg East                    | 100                    | 101               | 100               | 100              |
| 7 Clarksburg Town Center             | 100                    | 101               | 100               | 100              |
| 8 Clarksburg West                    | 100                    | 101               | 100               | 100              |
| 9 Cloverly                           | 99                     | 101               | 100               | 101              |
| 10 Colesville                        | 96                     | 96                | 99                | 97               |
| 11 Damascus                          | 101                    | 100               | 100               | 100              |
| 12 Derwood                           | 94                     | 94                | 87                | 94               |
| 13 Fairland/Briggs Chaney            | 96                     | 96                | 99                | 97               |
| 14 Forest Glen                       | 79                     | 70                | 64                | 70               |
| 15 Friendship Heights                | 78                     | 70                | 73                | 70               |
| 16 Gaithersburg City                 | 88                     | 86                | 76                | 85               |
| 17 Germantown East                   | 95                     | 95                | 97                | 91               |
| 18 Germantown Town Center            | 89                     | 91                | 89                | 90               |
| 19 Germantown West                   | 93                     | 90                | 92                | 88               |
| 20 Glenmont                          | 90                     | 91                | 96                | 91               |
| 21 Great Seneca Communities          | 89                     | 88                | 80                | 90               |
| 22 Great Seneca Life Sciences Center | 89                     | 88                | 80                | 90               |
| 23 Grosvenor                         | 81                     | 84                | 75                | 80               |
| 24 Kensington/Wheaton                | 91                     | 92                | 96                | 92               |

|                                 |     |     |     |     |
|---------------------------------|-----|-----|-----|-----|
| 25 Lyttonsville                 | 84  | 78  | 78  | 77  |
| 26 Medical Center               | 83  | 72  | 73  | 71  |
| 27 Montgomery Village/Airpark   | 93  | 102 | 93  | 102 |
| 28 North Bethesda               | 83  | 87  | 71  | 82  |
| 29 North Bethesda Metro Station | 79  | 78  | 72  | 78  |
| 30 North Potomac                | 97  | 100 | 100 | 100 |
| 31 Olney                        | 99  | 100 | 99  | 100 |
| 32 Olney Town Center            | 99  | 100 | 99  | 100 |
| 33 Potomac                      | 97  | 98  | 96  | 98  |
| 34 Purple Line East             | 87  | 87  | 89  | 88  |
| 35 Rock Spring                  | 83  | 87  | 71  | 82  |
| 36 Rockville City               | 88  | 94  | 87  | 98  |
| 37 Rockville Town Center        | 79  | 80  | 70  | 79  |
| 38 Rural East                   | 99  | 99  | 98  | 100 |
| 39 Rural West                   | 100 | 100 | 100 | 100 |
| 40 Shady Grove                  | 89  | 88  | 77  | 88  |
| 41 Silver Spring CBD            | 77  | 65  | 58  | 65  |
| 42 Silver Spring/Takoma Park    | 83  | 83  | 82  | 84  |
| 43 Takoma                       | 80  | 74  | 70  | 75  |
| 44 Twinbrook                    | 81  | 80  | 74  | 79  |
| 45 Wheaton CBD                  | 85  | 85  | 76  | 84  |
| 46 White Oak                    | 89  | 90  | 91  | 88  |
| 47 White Oak Downtown           | 89  | 90  | 91  | 88  |
| 48 Woodside                     | 80  | 74  | 70  | 75  |

Maryland Department of Transportation  
State Highway Administration Data Services Engineering Division  
Turning Movement Count Study - Field Sheet

**Station ID:** S1998150334 **County:** Montgomery **Comments:** LOS AM:A(0.55) PM:A(0.53)

**Date:** Tuesday 09/24/2013

**Location:** MD 355 at Comus Rd

**Town:** none

**Weather:** Sunny

**Interval**

15 min

| PEAK<br>HOURS | AM PERIOD<br>6:00AM-12:00PM | Start |  | End   | Volume | LOS | V/C  | PM PERIOD<br>12:00PM-19:00P |  | Start | End  | Volume | LOS  | V/C |
|---------------|-----------------------------|-------|--|-------|--------|-----|------|-----------------------------|--|-------|------|--------|------|-----|
|               |                             | 06:15 |  | Montg | 978    | A   | 0.55 | 17:15                       |  | Montg | 1120 | A      | 0.53 |     |
|               |                             |       |  |       |        |     |      |                             |  |       |      |        |      |     |

| Hour<br>Ending | MD 355     |      |         |       |       | MD 355     |      |         |       |       | COMUS RD  |      |         |       |       | Grand<br>Total |           |      |         |       |       |     |
|----------------|------------|------|---------|-------|-------|------------|------|---------|-------|-------|-----------|------|---------|-------|-------|----------------|-----------|------|---------|-------|-------|-----|
|                | From North |      |         | TOTAL |       | From South |      |         | TOTAL |       | From East |      |         | TOTAL |       |                | From West |      |         | TOTAL |       |     |
|                | U.Tur      | Left | Through | Right | TOTAL | U.Turn     | Left | Through | Right | TOTAL | U.Turn    | Left | Through | Right | TOTAL |                | U.Turn    | Left | Through | Right | TOTAL |     |
| 6:15           | 0          | 0    | 202     | 1     | 203   | 0          | 5    | 33      | 0     | 38    | 0         | 0    | 0       | 0     | 0     | 0              | 3         | 0    | 25      | 28    | 269   |     |
| 6:30           | 0          | 0    | 173     | 2     | 175   | 0          | 6    | 21      | 0     | 27    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 3    | 0       | 17    | 20    | 222 |
| 6:45           | 0          | 0    | 194     | 0     | 194   | 0          | 14   | 19      | 0     | 33    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 2    | 0       | 16    | 18    | 245 |
| 7:00           | 0          | 0    | 183     | 2     | 185   | 0          | 14   | 27      | 0     | 41    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 1    | 0       | 15    | 16    | 242 |
| 7:15           | 0          | 0    | 180     | 1     | 181   | 0          | 16   | 22      | 0     | 38    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 4    | 0       | 15    | 19    | 238 |
| 7:30           | 0          | 0    | 152     | 4     | 156   | 0          | 11   | 28      | 0     | 39    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 4    | 0       | 29    | 33    | 228 |
| 7:45           | 0          | 0    | 176     | 4     | 180   | 0          | 21   | 31      | 0     | 52    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 2    | 0       | 23    | 25    | 257 |
| 8:00           | 0          | 0    | 159     | 4     | 163   | 0          | 13   | 31      | 0     | 44    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 0    | 0       | 22    | 22    | 229 |
| 8:15           | 0          | 0    | 169     | 2     | 171   | 0          | 11   | 32      | 0     | 43    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 1    | 0       | 23    | 24    | 238 |
| 8:30           | 0          | 0    | 179     | 1     | 180   | 0          | 13   | 22      | 0     | 35    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 0    | 0       | 25    | 25    | 240 |
| 8:45           | 0          | 0    | 185     | 4     | 189   | 0          | 19   | 25      | 0     | 44    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 5    | 0       | 14    | 19    | 252 |
| 9:00           | 0          | 0    | 136     | 2     | 138   | 0          | 10   | 27      | 0     | 37    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 2    | 0       | 23    | 25    | 200 |
| 9:15           | 0          | 0    | 90      | 0     | 90    | 0          | 13   | 31      | 0     | 44    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 0    | 0       | 19    | 19    | 153 |
| 9:30           | 0          | 0    | 75      | 2     | 77    | 0          | 17   | 22      | 0     | 39    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 0    | 0       | 17    | 17    | 133 |
| 9:45           | 0          | 0    | 65      | 7     | 72    | 0          | 12   | 28      | 0     | 40    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 4    | 0       | 12    | 16    | 128 |
| 10:00          | 0          | 0    | 47      | 1     | 48    | 0          | 12   | 36      | 0     | 48    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 3    | 0       | 16    | 19    | 115 |
| 10:15          | 0          | 0    | 40      | 1     | 41    | 0          | 13   | 29      | 0     | 42    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 1    | 0       | 14    | 15    | 98  |
| 10:30          | 0          | 0    | 31      | 1     | 32    | 0          | 13   | 25      | 0     | 38    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 0    | 0       | 13    | 13    | 83  |
| 10:45          | 0          | 0    | 49      | 3     | 52    | 0          | 12   | 26      | 0     | 38    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 1    | 0       | 11    | 12    | 102 |
| 11:00          | 0          | 0    | 33      | 1     | 34    | 0          | 10   | 25      | 0     | 35    | 0         | 0    | 0       | 0     | 0     | 0              | 0         | 3    | 0       | 10    | 13    | 82  |

|                |  |                     |  |                             |  |                |  |                                     |  |               |  |             |  |             |  |                             |  |                |  |              |  |                |  |             |  |             |  |
|----------------|--|---------------------|--|-----------------------------|--|----------------|--|-------------------------------------|--|---------------|--|-------------|--|-------------|--|-----------------------------|--|----------------|--|--------------|--|----------------|--|-------------|--|-------------|--|
| Station ID:    |  | S1998150334         |  | County:                     |  | Montgomery     |  | Comments: LOS AM:A(0.55) PM:A(0.53) |  |               |  |             |  |             |  |                             |  |                |  |              |  |                |  |             |  |             |  |
| Date:          |  | Tuesday 09/24/2013  |  | Town:                       |  | none           |  |                                     |  |               |  |             |  |             |  |                             |  |                |  |              |  |                |  |             |  |             |  |
| Location:      |  | MD 355 at Cornus Rd |  | Weather:                    |  | Sunny          |  |                                     |  |               |  |             |  |             |  |                             |  |                |  |              |  |                |  |             |  |             |  |
| Interval (dd): |  | 15 min              |  |                             |  |                |  |                                     |  |               |  |             |  |             |  |                             |  |                |  |              |  |                |  |             |  |             |  |
|                |  |                     |  | AM PERIOD<br>6:00AM-12:00PM |  | Start<br>06:15 |  | End<br>Montg                        |  | Volume<br>978 |  | LOS<br>A    |  | V/C<br>0.55 |  | PM PERIOD<br>12:00PM-19:00P |  | Start<br>17:15 |  | End<br>Montg |  | Volume<br>1120 |  | LOS<br>A    |  | V/C<br>0.53 |  |
| 11:15          |  | 0 0 25 3 28         |  | 0 0 17 36 0 53              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 11:30          |  | 0 0 31 2 33         |  | 0 0 13 36 0 49              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 11:45          |  | 0 0 27 1 28         |  | 0 0 10 32 0 42              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 12:00          |  | 0 0 35 1 36         |  | 0 0 13 42 0 55              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 12:15          |  | 0 0 53 0 53         |  | 0 0 17 33 0 50              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 12:30          |  | 0 0 28 1 29         |  | 0 0 13 48 0 61              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 12:45          |  | 0 0 34 2 36         |  | 0 0 22 46 0 68              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 13:00          |  | 0 0 36 0 36         |  | 0 0 11 42 0 53              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 13:15          |  | 0 0 22 0 22         |  | 0 0 10 46 0 56              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 13:30          |  | 0 0 31 0 31         |  | 0 0 10 35 0 45              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 13:45          |  | 0 0 35 2 37         |  | 0 0 18 49 0 67              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 14:00          |  | 0 0 32 3 35         |  | 0 0 12 36 0 48              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 14:15          |  | 0 0 22 1 23         |  | 0 0 16 43 0 59              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 14:30          |  | 0 0 29 2 31         |  | 0 0 25 61 0 86              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 14:45          |  | 0 0 38 2 40         |  | 0 0 19 65 0 84              |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 15:00          |  | 0 0 26 3 29         |  | 0 0 21 92 0 113             |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 15:15          |  | 0 0 25 2 27         |  | 0 0 19 114 0 133            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 15:30          |  | 0 0 35 3 38         |  | 0 0 15 161 0 176            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 15:45          |  | 0 0 28 6 34         |  | 0 0 13 188 0 201            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 16:00          |  | 0 0 33 3 36         |  | 0 0 26 179 0 205            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 16:15          |  | 0 0 51 3 54         |  | 0 0 29 187 0 216            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 16:30          |  | 0 0 41 2 43         |  | 0 0 18 180 0 198            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 16:45          |  | 0 0 46 2 48         |  | 0 0 23 173 0 196            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 17:00          |  | 0 0 32 5 37         |  | 0 0 21 169 0 190            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 17:15          |  | 0 0 41 2 43         |  | 0 0 19 195 0 214            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |
| 17:30          |  | 0 0 52 1 53         |  | 0 0 21 177 0 198            |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0                         |  | 0 0 0 0 0 0   |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0                 |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0  |  | 0 0 0 0 0 0    |  | 0 0 0 0 0 0 |  | 0 0 0 0 0 0 |  |



| Station ID:    |   | S1998150334                 |    | County:        |     | Montgomery   |               | Comments: LOS AM:A(0.55) PM:A(0.53) |          |     |             |   |                             |   |   |   |                |     |              |                |     |          |  |             |  |
|----------------|---|-----------------------------|----|----------------|-----|--------------|---------------|-------------------------------------|----------|-----|-------------|---|-----------------------------|---|---|---|----------------|-----|--------------|----------------|-----|----------|--|-------------|--|
| Date:          |   | Tuesday 09/24/2013          |    | Town:          |     | none         |               |                                     |          |     |             |   |                             |   |   |   |                |     |              |                |     |          |  |             |  |
| Location:      |   | MD 355 at Cornus Rd         |    | Weather:       |     | Sunny        |               |                                     |          |     |             |   |                             |   |   |   |                |     |              |                |     |          |  |             |  |
| Interval (dd): |   | 15 min                      |    |                |     |              |               |                                     |          |     |             |   |                             |   |   |   |                |     |              |                |     |          |  |             |  |
| PEAK HOURS     |   | AM PERIOD<br>6:00AM-12:00PM |    | Start<br>06:15 |     | End<br>Montg | Volume<br>978 |                                     | LOS<br>A |     | V/C<br>0.55 |   | PM PERIOD<br>12:00PM-19:00P |   |   |   | Start<br>17:15 |     | End<br>Montg | Volume<br>1120 |     | LOS<br>A |  | V/C<br>0.53 |  |
|                |   |                             |    |                |     |              |               |                                     |          |     |             |   |                             |   |   |   |                |     |              |                |     |          |  |             |  |
| 17:45          | 0 | 0                           | 51 | 4              | 55  | 0            | 28            | 187                                 | 0        | 215 | 0           | 0 | 0                           | 0 | 0 | 0 | 0              | 2   | 20           | 0              | 22  | 292      |  |             |  |
| 18:00          | 0 | 0                           | 32 | 2              | 34  | 0            | 21            | 184                                 | 0        | 205 | 0           | 0 | 0                           | 0 | 0 | 0 | 0              | 1   | 16           | 0              | 17  | 256      |  |             |  |
| 18:15          | 0 | 0                           | 29 | 3              | 32  | 0            | 15            | 121                                 | 0        | 136 | 0           | 0 | 0                           | 0 | 0 | 0 | 0              | 5   | 12           | 0              | 17  | 185      |  |             |  |
| 18:30          | 0 | 0                           | 30 | 2              | 32  | 0            | 18            | 100                                 | 0        | 118 | 0           | 0 | 0                           | 0 | 0 | 0 | 0              | 2   | 13           | 0              | 15  | 165      |  |             |  |
| 18:45          | 0 | 0                           | 40 | 4              | 44  | 0            | 21            | 79                                  | 0        | 100 | 0           | 0 | 0                           | 0 | 0 | 0 | 0              | 2   | 12           | 0              | 14  | 158      |  |             |  |
| 19:00          | 0 | 0                           | 28 | 1              | 29  | 0            | 23            | 74                                  | 0        | 97  | 0           | 0 | 0                           | 0 | 0 | 0 | 0              | 3   | 18           | 0              | 21  | 147      |  |             |  |
| TOTAL:         |   | 0                           | 0  | 3616           | 111 | 3727         | 0             | 832                                 | 3750     | 0   | 4582        | 0 | 0                           | 0 | 0 | 0 | 0              | 118 | 875          | 0              | 993 | 9302     |  |             |  |
| AM Peak:       |   | 0                           | 0  | 752            | 5   | 757          | 0             | 39                                  | 100      | 0   | 139         | 0 | 0                           | 0 | 0 | 0 | 0              | 9   | 73           | 0              | 82  | 978      |  |             |  |
| PM Peak:       |   | 0                           | 0  | 176            | 9   | 185          | 0             | 89                                  | 743      | 0   | 832         | 0 | 0                           | 0 | 0 | 0 | 0              | 12  | 91           | 0              | 103 | 1120     |  |             |  |

**Station ID:** S1998150334

**County:** Montgomery

**Comments:** LOS AM:A(0.55) PM:A(0.53)

**Date:** Tuesday 09/24/2013

**Town:** none

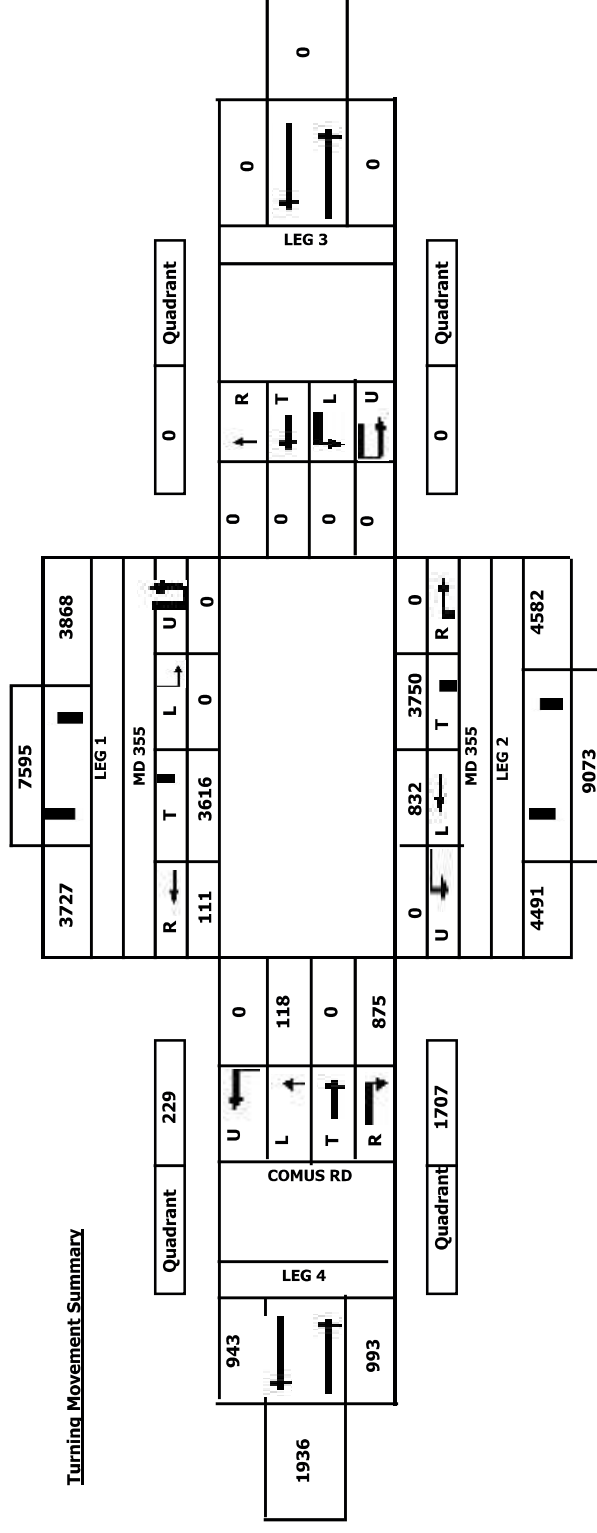
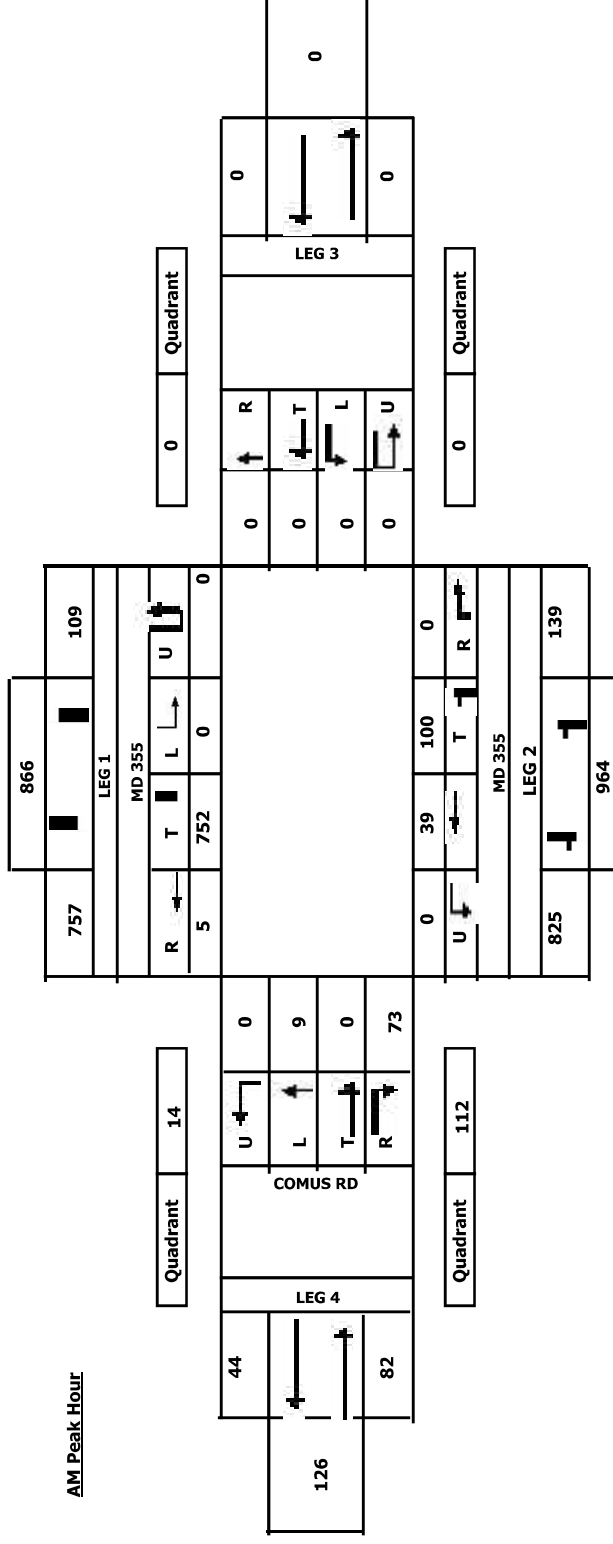
**Location:** MD 355 at Comus Rd

**Weather:** Sunny

Interval 15 min

[illegible]

## Turning Movement Summary

**AM Peak Hour**

Station ID: S1998150334

**County:** Montgomery

**Comments:** LOS AM:A(0.55) PM:A(0.53)

**Date:** Tuesday 09/24/2013

**Town:** none

**Town:** none

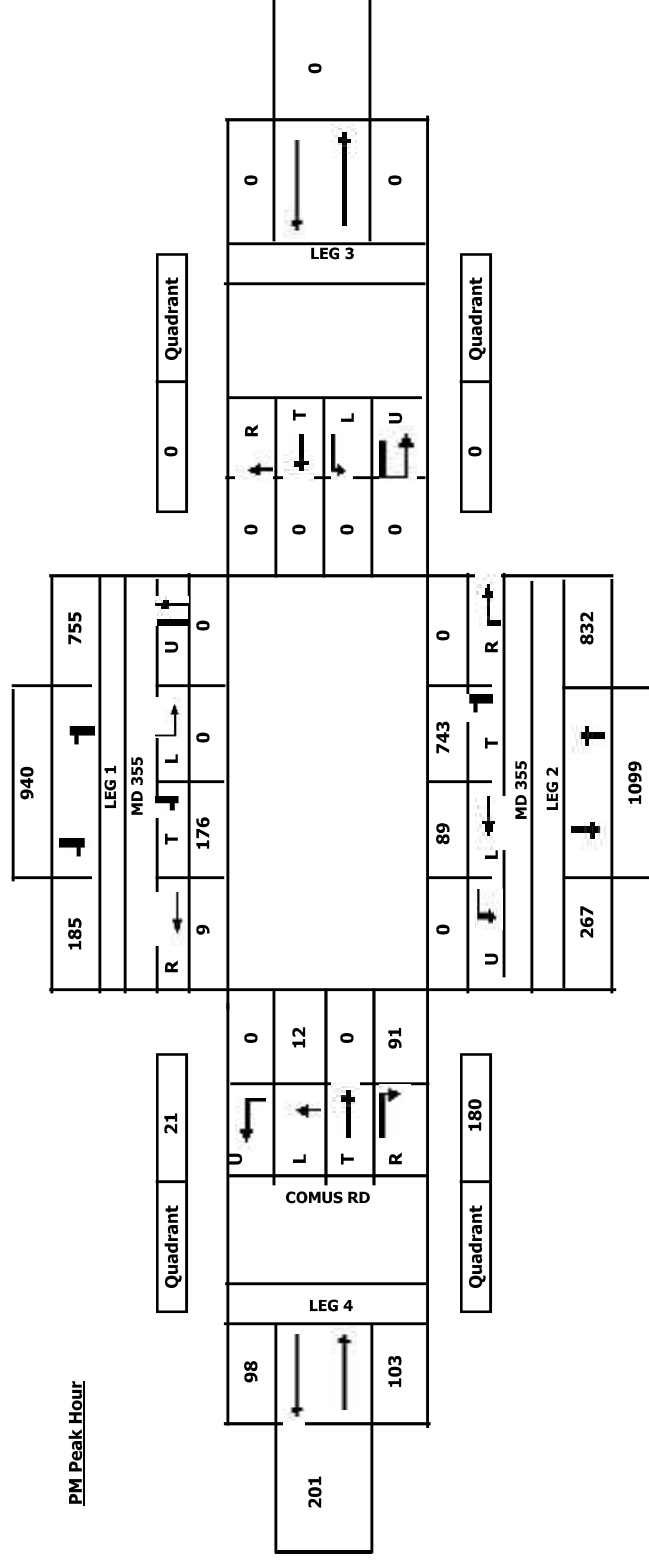
**Location:** MD 355 at Comus Rd

**Weather:** Sunny

Interval 15 min

| PEAK HOURS | AM PERIOD<br>6:00AM-12:00PM | Start | End   | Volume | LOS   | V/C  |
|------------|-----------------------------|-------|-------|--------|-------|------|
|            |                             | Start | End   | Montg  | Montg | A    |
|            |                             | 06:15 | Montg | 978    | A     | 0.55 |

**PM Peak Hour**





|               |                                    |           |               |             |  |
|---------------|------------------------------------|-----------|---------------|-------------|--|
| County:       | MONTGOMERY                         |           | Municipality: | NONE        |  |
| Prefix:       | CO                                 | Route NO: | 200           | Suffix:     |  |
|               | Mile Point: 4.81                   |           |               |             |  |
| Location:     | COMUS RD - .20 mile west of MD 355 |           |               |             |  |
| Begin Sect:   | 1.99                               |           | End Sect:     | 5.01        |  |
| Station Desc: | MD 109 TO MD 355                   |           |               |             |  |
| Func Class:   | 18-URBAN MINOR COLLECTOR           |           | Location ID:  | S2014150335 |  |

| Year | AADT  | AAWDT | Single Unit | Combination Unit | K Factor | D Factor | North East Split | South West Split | Dir In Peak Hour |
|------|-------|-------|-------------|------------------|----------|----------|------------------|------------------|------------------|
| 2022 | 1,921 | 1,981 |             |                  | 8.35     | 58.93    | 51.59            | 48.41            | WEST             |
| 2021 | 1,970 | 2,070 |             |                  | 8.35     | 58.93    | 51.59            | 48.41            | WEST             |
| 2020 | 2,063 | 2,193 |             |                  | 8.06     | 51.87    | 50.82            | 49.18            | WEST             |
| 2019 | 2,492 | 2,642 |             |                  | 8.06     | 51.87    | 50.82            | 49.18            | WEST             |
| 2018 | 2,461 | 2,611 |             |                  | 8.06     | 51.87    | 50.82            | 49.18            | WEST             |
| 2017 | 2,470 | 2,620 |             |                  | 8.06     | 51.87    | 50.82            | 49.18            | WEST             |
| 2016 | 2,422 | 2,592 |             |                  | 8.61     | 51.15    | 50.38            | 49.62            | WEST             |
| 2015 | 2,371 | 2,511 |             |                  | 8.61     | 51.15    | 50.38            | 49.62            | WEST             |
| 2014 | 2,310 | 2,450 |             |                  | 8.61     | 51.15    | 50.38            | 49.62            | WEST             |

Note

**AADT:** Annual Average Daily Traffic is the number of vehicles expected to pass a given location on an average day of the year.

**AAWDT:** Annual Average Weekday Traffic is the number of vehicles expected to pass a given location on an average Weekday (Monday – Friday).

**Single Unit:** Percentage of Trucks (FHWA Classes 4 -7).

**Combination Unit:** Percentage of Trucks (FHWA Classes 8-13).

**K Factor:** Proportion of Annual Average Daily Traffic occurring in the 30th highest hour volume for Continuous count station and Peak hour volume for Short duration count stations.

**D Factor:** Percentage of traffic moving in the peak direction during the 30th highest hour volume for Continuous count station and Peak hour volume for Short duration count stations.

**North East Split:** Percentage of traffic in the North or East Direction.

**South West Split:** Percentage of traffic in the South or West Direction.

**Peak Hour Direction:** The direction with largest volume in the peak hour.