



MAPLE LAWN  
FARMS  
OVERVIEW

8.1









## TECHNICAL STAFF REPORT

*Planning Board Meeting of April 23, 2026*

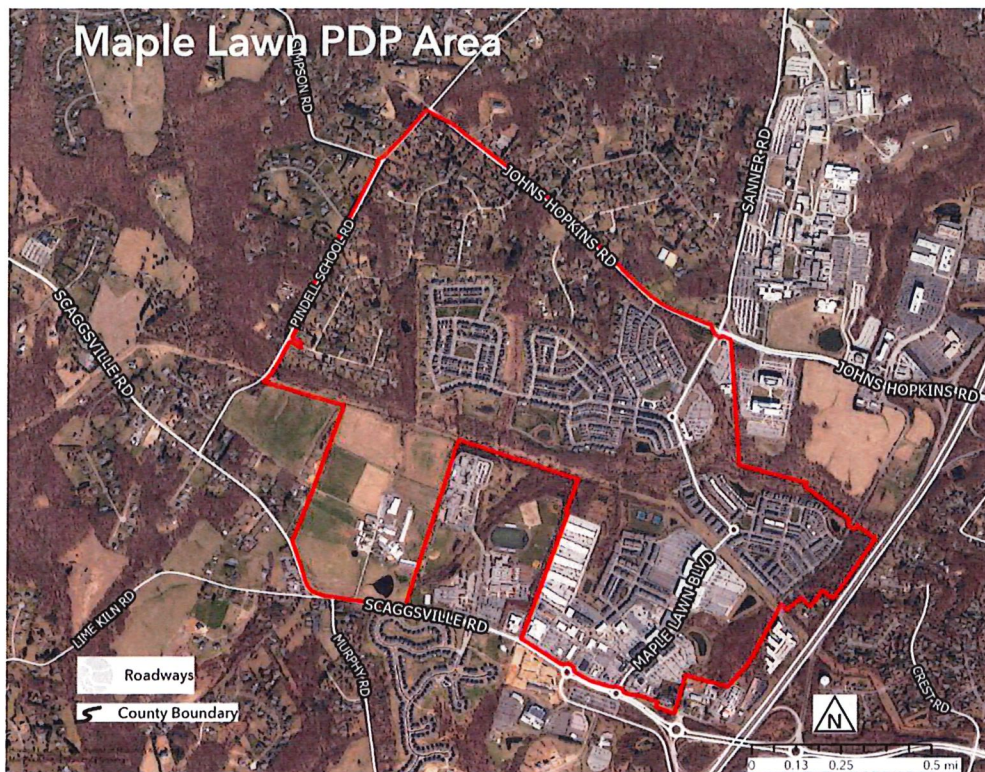
**Case No./Petitioner:** ZB-1134M –Olde Scaggsville, LLC; G&R Maple Lawn, Inc.

**Request:** To amend the Maple Lawn Farms Preliminary Development Plan as follows:

1. Increase the maximum overall residential density from 2.2 dwelling units per gross acre to 3.0 dwelling units per gross acre
2. Increase the permitted dwellings units on the Maple Lawn West District (Old Farm District) from 32 single-family detached dwellings to 253 single-family detached dwellings
3. Inclusion of adjacent parcels within the PDP boundary and designate as Other Residential land use (TM 46 P 220 & 226)
4. Change a portion of the land use designation of the Maple Lawn Business District from Employment to Other Residential and add 260 apartment units.

**Location:** 11788 Scaggsville Road; Tax Map 41, Parcel 330 (“the Property”)  
11292 Buch Way; Tax Map 46, Parcels 200 and 226 (“the Property”)

**Area of Site:** 115.8 acres (109.6 acres West District; 6.2 acres Apartment Property)





Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G&R Maple Lawn, Inc.)

## I. DESCRIPTION OF PROPOSAL

The Petitioner proposes to amend the Maple Lawn Farms Preliminary Development Plan (approved through ZB-995M and amended through ZB-1039M) to add 221 single-family detached dwellings to the Maple Lawn West District (Old Farm District), which is currently approved for 32 single-family detached dwellings. The Petitioner also proposes to add 2.47 acres of contiguous land to the PDP as Other Residential land use, change the land use designation of the southeast portion of the Business District to Other Residential land use, and add 260 apartment units. According to the Petitioner, the dwellings will be constructed in phases as follows:

Phase 1 (2029) – 260 apartment dwellings

Phase 2 (2030) – 32 single-family detached dwellings (previously approved per ZB-995M)

Phase 3 (2031) – 175 single-family detached dwellings

Phase 4 (2032) – 46 single-family detached dwellings

Vehicular access for Phase 1 is proposed through the terminus of Buch Way, which is accessed from the traffic circle on MD Route 216. Internally, the Apartment Property is planned to connect to Maple Lawn Boulevard by East Market Place. In addition, there will be an access point from another road off of Maple Lawn Boulevard near the intersection of Maple Lawn Boulevard and Market Street.

The Petitioner is proposing to increase the number of single-family detached dwelling units and add an apartment building. The additional 481 dwellings units will increase the maximum overall residential density from 2.2 dwelling units per gross acre to 3.0. The acreage of each land use category and the number of dwellings is proposed to be amended as follows:

| Land Use                 | Current Acres | Proposed Acres* | Current % | Proposed % |
|--------------------------|---------------|-----------------|-----------|------------|
| Single-Family – Detached | 192.6         | 194.7           | 31.8      | 32         |
| Other Residential        | 73.6          | 77.7            | 12.2      | 12.8       |
| Employment               | 122           | 122             | 20.2      | 20.1       |
| Open Space               | 217.1         | 213.1           | 35.8      | 35.1       |
| Total                    | 605.3         | 607.5           | 100       | 100        |

| Residential Land Use     | Current Units | Proposed Units* | Current % | Proposed % |
|--------------------------|---------------|-----------------|-----------|------------|
| Single-Family – Detached | 507           | 759             | 37.8      | 40.0       |
| Single-Family Attached   | 623           | 618             | 46.5      | 34.2       |
| Apartments               | 210           | 444             | 15.7      | 25.8       |
| Total                    | 1,340         | 1,821           | 100       | 100        |

\*The proposed acres and proposed units account for as-built conditions and future development proposed under this request.

The Petitioner is also proposing an increase in the total acreage from 605.3 to 607.5 resulting from a pending zoning petition to rezone two adjacent properties from B-1 to RR-MXD-3 and incorporate them into the Maple Lawn Development Plan. This land addition also results in an increase in the permitted square footage of retail centers, which is based on 300 square feet per gross acre, from 181,590 square feet to 182,250.



Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G & R Maple Lawn, Inc.)

## II. ZONING HISTORY

- A. The properties that comprise the Maple Lawn Preliminary Development Plan were zoned R-40 in the 1961 Comprehensive Zoning Plan. The properties were rezoned to R (Rural) during 1977 Comprehensive Zoning Plan, which remained until the 2004 Comprehensive Zoning Plan when the properties were rezoned to the current RR-MXD-3.

### B. Subject Site – Case History

1. Case No. ZB995M  
Petitioner: G&R Maple Lawn  
Request: Preliminary Development Plan for 507.9 acres consisting of 485 SFD, 395 SFA, 236 apartments, and a maximum of 1,175,460 square feet of employment including 152,370 square feet in retail centers.  
Action: Granted, December 29, 2000
2. Case No. ZB1039M  
Petitioner: G&R Maple Lawn  
Request: To amend the PDP to:
  1. Increase the total land area by 97.4 acres to 605.3 acre by adding two properties. The 97.4 acres consists of 19 acres of residential, 44.1 acres of employment, and 34.3 acres of open space;
  2. Increase the number of permitted dwellings from 1,116 to 1,340 (485 SFD, 619 SFA, and 236 apartments)
  3. Increase the square footage of employment from 1,175,460 to 1,860,012 including an increase of 29,220 square feet of retail and 655,332 square feet of office.Action: Granted, March 20, 2006
3. Case No.: ZB1127M  
Petitioner: G&R Maple Lawn  
Request: To amend the PDP to:
  1. Increase the maximum overall residential density from 2.2 dwelling units per gross acre to 3.0 dwelling units per gross acre.
  2. Change the land use designation of the Maple Lan West District from Single Family Detached to Other Residential.
  3. Increase the permitted dwelling units on the Maple Lawn West District to 157 single family detached dwellings, 148 single family attached dwellings, and 200 apartment dwellings.
  4. Adjust the number of dwellings/acre in each land use category and decrease the square footage allowed in retail centers from 181,590 to 181,380.Action: Withdrawn
4. Case No.: ZB1134 (Rezoning)  
Petitioner: Olde Scaggsville, LLC and G&R Maple Lawn  
Request: To rezone TM 46 Parcels 200 & 226 from B-1 to RR-MXD-3  
Action: In process – Submitted simultaneously with this PDP amendment



Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G&R Maple Lawn, Inc.)

### III. BACKGROUND INFORMATION

#### A. Site Description

The 109.6-acre property in the West District is currently used as an agricultural operation and consists of a house, several barns, and multiple accessory buildings. The Property rises from an elevation of 410 feet along the north property to 470 feet along the west property line. A pond and wetland area are located in the southeast corner.

The 6.2 acres for the Apartment Property includes the southeast portion of the Business District and two adjacent parcels proposed to be added with this PDP. The portion of the Business District is used as a parking lot for the Maple Lawn commercial area, and the two adjacent parcels are developed with modular office buildings.

#### B. Vicinal Properties

| Direction | Zoning          | Land Use                                     |
|-----------|-----------------|----------------------------------------------|
| North     | RR-DEO/RR-MXD-3 | Single-Family Residential                    |
| South     | RR-DEO/RR-MXD-3 | Single-Family Residential / Church           |
| East      | RR-MXD-3        | Public Schools                               |
| West      | RR-DEO/B-1/B-2  | Single-Family Residential/ Farm / Commercial |

#### C. Roads

MD-216 consists of two lanes within a variable width right-of-way and the speed limit is 35 mph. Federal Street is a two-lane local street and the speed limit is 25 mph.

The Annual Average Daily Traffic (AADT) on MD-216 was 24,761 in 2019. Traffic Count data is not available for Federal Street.

#### D. Water and Sewer Service

The Property is in the Planned Service Area for water and sewer. The West District property is not located in the Metropolitan District but will be served by public water and sewer.

#### E. General Plan

The Property is designated Mixed-Use Neighborhood on the Future Land Use Map of HoCo By Design. MD-216 is a Minor Arterial.

#### F. Subdivision Review Committee

As required by Section 127.D.4. of the Zoning Regulations, the Preliminary Development Plan and Criteria were evaluated by the various agencies comprising the Subdivision Review Committee ("SRC"). The comments of SRC agencies are attached.

Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G&R Maple Lawn, Inc.)

#### IV. EVALUATIONS AND CONCLUSIONS

##### A. Details of the Mixed Use Development and evaluation based on the Section 127.0.C, requirements for Mixed Use Developments

1. **All Mixed Use Developments are required to be served by public water and public sewer.**

The Property is in the Planned Service Area and will be served by public water and sewer.

2. **Minimum Area of Preliminary Development Plan**

- a. **The first Preliminary Development Plan approved for an MXD District must encompass at least 40% of the area of all contiguous MXD-zoned parcels or at least 25 acres, whichever is greater. Subsequent Preliminary Development Plans by a different petitioner for the same MXD District must encompass at least 25 acres. A petition to amend the plan for an existing Mixed Use Development may add areas of any size to the Mixed Use Development.**

The Petitioner is proposing to incorporate two adjacent parcels into the Preliminary Development Plan. These parcels are currently zoned B-1; however, there is an accompanying Zoning Map Amendment Petition, ZB-1134M, requesting that the parcels be rezoned to RR-DEO-MXD-3 prior to this request for the purpose of being added to the Maple Lawn Preliminary Development Plan.

- b. **Where there are two or more contiguous MXD-zoned lots or parcels under single ownership, the Preliminary Development Plan shall include the petitioner's entire contiguous acreage.**

The PDP includes the Petitioner's entire contiguous acreage.

3. **Proportions of Uses**

- a. **The Mixed Use Development shall provide the following minimum proportions of land uses:**

| <i>Land Use</i>    | <b>Minimum % of Gross Area of Mixed Use Development</b> |
|--------------------|---------------------------------------------------------|
| <b>Open Space</b>  | <b>35%</b>                                              |
| <b>Residential</b> | <b>20%</b>                                              |
| <b>Employment</b>  | <b>15%</b>                                              |

The proposed land use proportions are as follows:

| <i>Land Use</i> | <b>Minimum % of Gross Area of Mixed Use Development</b> |
|-----------------|---------------------------------------------------------|
| Open Space      | 35.1%                                                   |
| Residential     | 44.8%                                                   |
| Employment      | 20.1%                                                   |



Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G&R Maple Lawn, Inc.)

- b. Areas of a Mixed Use Development in which residential and employment uses are mixed within a single site or building may be used to satisfy the minimum percentage requirements, based on the projected proportions of building area (e.g., if 30% of the floor area of buildings will be devoted to residential use, then 30% of the site acreage shall be applied to residential land use acreage.)**

This criterion does not apply, since no residential and employment uses are mixed within a single site or building.

- c. The first Mixed Use Development approved within an MXD District shall include at least one focal point which shall have an integrated mix of land uses. The focal points may include land uses such as office and/or residential buildings, retail stores and services, civic or public uses, open space, including features such as plazas, squares, or other useable landscaped areas. Subsequent Mixed Use Developments within the same MXD District are not required to have a focal point, however, the land-use mix for all MXD Developments must cumulatively meet the requirements of Section 127.0.C.3.a.**

The focal point for Maple Lawn has been approved and constructed in the Midtown District, as approved on the original PDP (ZB-995M). No changes to the existing focal point, and no additional focal points are proposed.

- d. The Preliminary Development Plan for a Mixed Use Development shall include a staging plan establishing the timing or sequence of development. The staging plan shall establish the earliest reasonable time frame for the recordation of subdivision plats for a proportionate mix of land uses. Staging should take into consideration: extension of water and sewer service; efficient use of road network capacity; and the market for residential and employment uses.**

The Petitioner submitted a staging plan depicting construction of the development between 2029 and 2032 as shown below:

Phase 1 (2029) – 260 apartment dwellings

Phase 2 (2030) – 32 single-family detached dwellings

Phase 3 (2031) – 175 single-family detached dwellings

Phase 4 (2032) – 46 single-family detached dwellings

The proposal is for residential land uses only. All approved employment land use areas have been constructed; therefore, an evaluation of the staging of commercial vs. residential development is not applicable.

**The staging plan shall allow no more than 50% of the acreage designated for residential land use to be recorded prior to commencing plat recordation for employment areas. After plats have been recorded for half of the designated residential acreage, each succeeding stage of**

Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G & R Maple Lawn, Inc.)

**development must make substantial progress toward recording the approved mix of land uses.**

This criterion does not apply, since the development does not include employment areas and the entire approved employment area has been constructed.

- e. Recorded open space parcels must always constitute at least 35% of the total recorded land within a Mixed Use Development. At least 10% of the gross open space shall be usable for active recreation facilities. Active recreation facility includes but is not limited to ball fields, indoor sports facilities, play meadows, tot lots, and pedestrian, biking pathway system.**

The land area of recorded open space parcels will decrease from 217.1 acres to 213.1 acres and decrease from 35.8% to 35.1% of the development. The petition indicates that at least 10% of the gross open space acreage will be useable for active recreation facilities.

**4. Permitted Uses**

The Petitioner is proposing single-family detached, apartments, and open space areas which are permitted uses in the MXD-3 zoning district. The Uses of land will be limited to those permitted by the Second Amended PDP and PDP Criteria. Uses permitted only in the R-MH or M-2 District will not be permitted.

**5. Accessory Uses**

**Unless different accessory uses are indicated in the Preliminary Development Criteria, accessory uses shall be as follows.**

- a. The accessory use provisions of Section 109.0 (the R-12 District) shall be applicable to all residential uses in the MXD-3 and MXD-6 Districts.**

The Petition indicates that the accessory use provisions of Section 109.0 will apply to the residential uses.

- b. The accessory use provisions of Section 115.0 (the POR District) and Section 122.0 (the M-1 District) shall be applicable to all employment uses in the MXD-3 and MXD-6 Districts.**

The Petition indicates that the accessory use provisions of Section 115.0 will continue to apply to employment uses.

**6. Residential Density**

- a. The number of dwelling units permitted in MXD-3 shall be limited to 3.0 dwelling units per gross acre.**

The Second Amended PDP proposes a maximum residential density of 3.0

Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G&R Maple Lawn, Inc.)

dwelling units per gross acre, consistent with the MXD-3 Zoning District. The PDP Development criteria currently allow a maximum of 2.8 dwelling units per gross acre for single-family detached land uses. The Petitioner is proposing to increase the single-family detached density to 4.0 dwelling units per gross acre. The apartment density will comply with the current PDP.

**b. Moderate Income Housing Units**

**At least 10% of the dwellings in each MXD development shall be Moderate Income Housing Units.**

The Petitioner has previously satisfied applicable MIHU requirements for Maple Lawn. The Petitioner indicated that there will be a voluntary 15% MIHU for the multi-family apartment dwelling units.

**c. The number of apartment dwelling units allowed by a Preliminary Development Plan for a Mixed Use Development in an MXD-3 District shall be limited to no more than 30% of the total number of dwelling units allowed in the development.**

The multifamily apartment dwelling does not exceed 30% of the total number of dwelling units within the Mixed Use District. The proposed amendment will establish 260 apartment dwellings for a total of 25.8% of all dwelling units.

**7. Requirements for Employment Uses**

The Petitioner is not proposing changes to the requirements related to Employment Uses; therefore, this section does not apply.

**8. Open space lots designated for public uses which require a building or buildings to accommodate the principal use shall constitute a maximum of 30% of the gross acreage of open space within the Mixed Use Development.**

The Petition states that open space lots designated for public uses that require a building to accommodate the principal use will not constitute more than 30% of the gross acreage of open space within the MXD district.

**9. Bulk Regulations**

**Requirements regarding setbacks, lot coverage, lot sizes, building heights and all other bulk regulations for the MXD District not established in this section shall be established by the Planning Board through approval of a Comprehensive Sketch Plan and Development Criteria, in addition to any requirements imposed by the Zoning Board in the Preliminary Development Plan and Preliminary Development Criteria.**

The Petitioner agrees to comply with this requirement.



Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G & R Maple Lawn, Inc.)

**10. Other Requirements**

**The provisions of Section 128.0 (Supplementary Zoning District Regulations) and Section 133.0 (Off Street Parking and Loading Facilities) shall apply in the MXD-3 and MXD-6 Districts unless different requirements are specifically approved in the Comprehensive Sketch Plan and Development Criteria.**

The Petitioner indicates that the provisions of Sec. 128.0 and Sec. 133.0 will apply.

**B. Evaluation of the Petition Concerning Section 127.D.7, Criteria for Approval of Preliminary Development Plan**

- a. The plan and criteria will foster orderly growth, integration of uses, and development consistent with the purposes of the MXD District.**

The proposal is consistent with the purpose of the MXD District to permit flexible and efficient use of large parcels that have a unified design and are characterized by availability of public facilities, including access to collector or arterial highways.

The West District Property is 109.6 acres and is proposed for 253 dwelling units. The Property will have a unified design by incorporating Traditional Neighborhood Development concepts consisting of a diverse mix of housing, small pedestrian scaled blocks, and an expansive open space network with passive and active recreation facilities. Additionally, as approved in the original Preliminary Development Plan, the development will connect to the overall Maple Lawn Development via Federal Street through the Maple Lawn Garden District.

The Apartment Property is approximately 6.2 acres and is proposed for 260 apartment units. This includes redeveloping an underutilized parking lot in the Business District and redevelopment of two adjacent parcels proposed to be added to the PDP.

The proposal does not exceed the allowed residential density and complies with required land use mix.

The West District Property has access to MD-216, a Minor Arterial. The Apartment Property has access to Buch Way from MD-216. The Petitioner proposes a phased development with construction occurring from 2029 to 2032. The development will be required to comply with the Adequate Public Facilities Ordinance (APFO), which tests for school and road capacity, at the site development plan stage for each phase.

- b. The Mixed Use Development will be phased to conform to the phasing of road improvements that are needed to serve the proposed development, including improvements to road links, intersections and interchanges for both State and County roads.**

Phase one includes a 260-unit apartment building that will be developed on a portion of the southeast Business District and the proposed incorporated parcels. Access to the apartment building will be provided primarily by Buch Way, and additional

Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G & R Maple Lawn, Inc.)

access is proposed at Maple Lawn Boulevard by way of East Market Place. The remaining phases include construction of single-family detached dwellings in the West District. Access to the West District is proposed via an intersection with Scaggsville Road and Lime Kiln Road, and internally through an extension of Federal Street.

- c. **The staging plan establishes the earliest reasonable time frame for development of the focal point and recordation of subdivision plats for a proportionate mix of land uses in accordance with Section 127.0.C.3.d.**

The focal point was provided in original Preliminary Development Plan and is not required in subsequent amendments.

- d. **The plan and criteria are consistent with all applicable environmental policies and requirements.**

As approved on the original Preliminary Development Plan, an extension of Federal Street into the development crosses a stream, wetlands, associated buffers, and floodplain. Additionally, an access road connecting to MD-216 is shown impacting a wetland and associated buffer on the southern portion of the Property. Grading, removal of vegetation cover/trees, and paving are not permitted in these environmentally sensitive areas. Any disturbance in these areas must conform to Sections 16.115 and 16.116 of the Subdivision and Land Development Regulations and will be evaluated in further detail at the plan submission state.

If the Petitioner's request is approved, the Department encourages flexibility to allow appropriate placement of the crossing and access road to balance safety with minimizing impacts to sensitive environmental features. This evaluation will be done at the SDP stage.

- e. **The minimum area, proportions of uses and the density or intensity of development will be consistent with the requirements of Section 127.0.C.**

As noted above in the evaluation of Section 127.0.C., the minimum area, proportions of uses and the density or intensity of development are consistent with the requirements in Sec. 127.0.C.

- f. **The relative proportions of residential, employment, and open space uses will be appropriate to the area surrounding the MXD District.**

The proposed development consists of residential and open space uses, which are appropriate to the surrounding properties.

- g. **If required, the development will include at least one integrated focal point of sufficient size and variety of land uses to be a distinct focus for the community. A focal point is required only for the first Preliminary Development Plan within an MXD District.**

The focal point was provided in the first Preliminary Development Plan; therefore, this criterion does not apply.

Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G & R Maple Lawn, Inc.)

- h. The location of land designated for retail centers is appropriate for retail and personal service uses which will serve the local neighborhood or community.**

The Petitioner is not proposing retail uses. The existing retail centers were approved through the first and second Preliminary Development Plans and built out.

- i. The development will provide a mix of housing types.**

The Petitioner is proposing a mix of housing consisting of 513 dwelling units, consisting of 260 apartments and 253 single-family detached dwellings. The Petitioner has indicated that there will be a voluntary 15% MIHU for the multi-family apartment dwelling units.

- j. When feasible, public transit facilities and routes will be integrated into the development.**

Public transit facilities were approved through prior Preliminary Development Plans in the Midtown, Hillside, and Business Districts. The Petitioner is not proposing public transit facilities or routes within the Maple Lawn West development.

- k. The intensity and scale of land use, as determined by proposed densities, F.A.R. limits and other requirements, will be appropriate in relation to the environmental constraints of the site and the character of existing and planned development in the vicinity of the site.**

The environmental constraints consist of a pond and small wetland areas on the north and south portions of the West District Property. These areas will be protected and preserved within a large open space area, except for the proposed vehicular access connection to MD-216, which was contemplated in the original Preliminary Development Plan. These preserved areas will help protect these environmental features by providing a more substantial buffer than is required in the Subdivision and Land Development Regulations.

The property to the east contains three public schools, the properties to the north consist of single-family detached dwellings, a farm and single-family detached dwellings are to the west, and a place of worship and single-family detached homes are to the south.

- l. The development will be compatible with existing and planned vicinal land uses. One or more of the following methods may be used to ensure an appropriate relationship between the Mixed Use Development and surrounding land:**

- (1) Protection and enhancement of a natural feature on the boundary of the Mixed Use Development, such as a forest, wooded stream valley or grade change, to provide a natural edge to the Mixed Use Development.**

The environmental constraints on the boundary of the West District Property consist of a stream and wetland area along the north property line and small wetland areas on the south portions of the Property. These areas will be protected and preserved within a large open space area, except for the internal road which was contemplated in the original Preliminary Development Plan. The preserved

Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G&R Maple Lawn, Inc.)

areas will help protect these environmental features by providing a more substantial buffer than what is required in the Subdivision and Land Development Regulations. There are no known natural features on the boundary of the Apartment Property that would provide a natural edge to the mixed-use development.

**(2) Creation of open space to provide a transition or a connection between the Mixed-Use Development and adjacent land uses, including off-site open space areas.**

The proposed open space network connects to existing open space areas and protects environmentally sensitive features. Open space areas in the West District will support parks and outdoor recreational facilities. Open Space is not proposed on the Apartment Property.

**(3) Use of an existing or planned major road on the edge of the Mixed-Use Development as a separation between different uses.**

MD-216 (Scaggsville road), a Minor Arterial, is located on the southern edge of the West District Property and separates the proposed developed from single-family dwellings to the south. MD-216 is located on the southern edge of the Apartment Property. The PDP Development Criteria requires a 300-foot minimum setback for residential buildings from MD-216. The Petitioner is proposing to require a 30-foot setback from multi-story residential apartment buildings from MD-216.

**(4) Establishment of landscape design concepts applicable to the edges of the MXD District where specified types of land uses abut. Such standards may include the use of vegetation, berms, walls or fences.**

The current PDP requires a 50-foot open space buffer from residential communities. An open space network, consisting of vegetation, is provided along the edge of the proposed West District development. The Apartment Property proposes a landscape edge adjacent to the county-owned institutional property.

**(5) Establishment of setback requirements, accompanied by landscape design standards, along the edges of the Mixed-Use Development where different land uses will meet.**

The Petitioner is proposing to add a 30-foot setback for multi-story residential apartment buildings from MD Route 216. No other setback changes are proposed to the existing Development Criteria.

**(6) Control of the size of buildings along the edges of the Mixed-Use development through limits on building height, F.A.R. or other requirements.**

The Petitioner is not proposing new building size limitations. Therefore, the requirements established on the current PDP will apply to the proposed development.



Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G & R Maple Lawn, Inc.)

**(7) Provision of a transition in land uses such that uses on the edge of the Mixed Use Development are similar to adjacent land uses outside the development.**

The property to the east contains three public schools, the properties to the north consist of single-family detached dwellings, a farm and single-family detached dwellings are to the west, and a place of worship and single-family detached homes are to the south.

The Petitioner is providing a transition in land uses by proposing lower density single-family detached dwellings along the perimeter. The apartment building will be adjacent to existing commercial and retail uses. Additionally, open space area provided between the development and adjacent properties as an additional transition.

**m. The proposed major open space network will accomplish the following:**

**(1) Connect, wherever possible, to existing and planned open space adjoining the development.**

The proposed open space network connects to existing open space areas and protects environmentally sensitive features. Open space areas in the West District will support parks and outdoor recreational facilities.

**(2) Protect major environmental features such as large forest stands or stream valleys; and**

The open space network preserves a significant area adjacent to the stream and wetland area north of the Property as well as the pond area on the southern portion of the site. These preserved areas will help protect the environmental features by providing a substantial buffer.

**(3) Provide adequate useable land in appropriate locations for parks or recreational facilities. The determination of compliance with this criterion shall be based on a finding that at least 10% of the gross open space shall be usable for active recreation facilities. Active recreation facility includes but is not limited to ball fields, indoor sports facilities, play meadows, tot lots, and pedestrian, biking pathway system.**

The proposed open space network connects to existing open space areas and protects environmentally sensitive features. Open space areas in the West District will support parks and outdoor recreational facilities. Compliance with the 10% minimum active recreation requirement will be reviewed at the site development plan stage.

**(4) Provide appropriate sites for needed public facilities such as schools and libraries.**

The Maple Lawn development has previously established the needs for public facilities, no other changes have been proposed.

Case No.: ZB-1134M

Petitioner: Michael Buch (Olde Scaggsville LLC; G & R Maple Lawn, Inc.)

**n. The proposed development will provide housing and jobs within pedestrian access of each other.**

The proposed dwelling units are less than one mile from the Maple Lawn Employment area, which can be accessed by a sidewalk on MD-216.

**C. Relation to the General Plan**

HoCo By Design describes Maple Lawn as a Mixed-Use Neighborhood, a General Plan character area. The Mixed Use Neighborhoods include land offering the opportunity to live, work, shop, and play in a master-planned community. Mixed-Use Neighborhoods emphasize a mix of uses, a neighborhood activity center, and one or more neighborhoods connected to the activity center by a network of pathways or walkable streets. The design of Mixed-Use neighborhoods transitions effectively between residential and nonresidential uses, and includes safe and convenient pedestrian and bicycle access for nearby residents. Sites effectively minimize the impact of cut-through traffic on nearby neighborhood streets by orienting vehicle access and circulation away from neighborhoods. Residential neighborhoods within and adjacent to activity centers are encouraged to offer different home types of varied lot sizes with a range of home choices.

Within the HoCo By Design Dynamic Neighborhoods chapter, Mixed-Use Neighborhoods are “Various character areas on the FLUM are envisioned to have a range of multi-family housing types; however, Multi-Family Neighborhood, Mixed-Use Activity Centers, and Mixed-use Neighborhood character areas are envisioned to contain apartment complexes and condominiums with a higher number of units and buildings at a greater scale” (page DN-54).

The proposal is also in harmony with the following policy statement in HoCo By Design. Policy Statement DN-8: “Support the new development and redevelopment of multi-family communities that meet the County’s current and future rental housing demands and ensure that resident displacement is minimized in redevelopment projects.” Implementing Action #1: “Support multi-family housing projects that serve a range of income levels and integrate traditional market rate housing with affordable housing opportunities.”

The proposal to continue to develop this portion of Maple Lawn in the same traditional neighborhood design as the rest of Maple Lawn supports HoCo By design targeted growth policies. The proposed development will be designed with a series of interconnected roads with open spaces and community facilities. The proposed development will also connect to the existing Maple Lawn Garden District via Federal Street, and with a proposed intersection with Scaggsville Road and Lime Kiln Road, making Maple Lawn one cohesive community.

In terms of housing, the variety of housing options are outlined in the proposed amendment and include a mix of single-family detached homes and multifamily units

Case No.: ZB-1134M

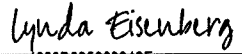
Petitioner: Michael Buch (Olde Scaggsville LLC; G&R Maple Lawn, Inc.)

(apartments). The petitioner is offering a voluntary 15% percent of the units on the Subject Property as MIHUs. The proposed diverse residential types will result in a variety of lot sizes, housing types, and income diversity that furthers the original intention of the MXD-3 district and current General Plan.

**D. Fiscal Impact Analysis**

A fiscal impact analysis was conducted to compare the tax revenue generated by the proposed Maple Lawn West development to the cost of public services provided by Howard County. The analysis determined that the proposed residential development, including single-family homes and apartments in the business district, is expected to generate a combined annual net surplus of just over \$818,000. This includes an estimated annual surplus of approximately \$2.24 million from the single-family homes and a deficit of approximately \$1.42 million associated with the apartment units. Over a 30-year period, the present value of the net fiscal impact is projected to be nearly \$50 million in surplus for the single-family homes and approximately negative \$160 million for the apartments, resulting in mixed long-term outcomes. In addition, the development is expected to generate more than \$10.2 million in one-time school surcharge fees to support construction and maintenance of public schools. An economic impact analysis further estimates that the proposed development will support approximately 680 jobs, generate \$137 million in economic output, and produce \$56 million in employee compensation.

Approved by:

DocuSigned by:  
  
42205535803942E...  
Lynda Eisenberg, AICP, Director  
4/9/2026  
Date





## MEMORANDUM OF UNDERSTANDING

### Regarding the Second Amended Preliminary Development Plan

#### Maple Lawn

This Memorandum of Understanding (this "MOU") is entered into by and among G & R Maple Lawn, Inc. and Olde Scaggsville LLC (collectively, the "Developer"), and Maple Lawn Homeowners Association, Inc. (the "HOA"). The Developer and the HOA are sometimes collectively referred to herein as the "Parties."

#### I. Shared Purpose and Intent

Maple Lawn was envisioned and developed as an integrated, walkable, mixed-use community designed to bring together residential neighborhoods, businesses, and open space within a cohesive framework. Both the Developer and the HOA share a commitment to preserving and strengthening that vision as Maple Lawn continues to evolve.

This MOU reflects the Parties' mutual commitment to thoughtful collaboration regarding the Second Amended Preliminary Development Plan submitted by the Developer to Howard County, Maryland (the "County") on February 19, 2026 and known as ZB1134P and ZB1134M (collectively, the "Second Amended PDP"), which is intended to complete and refine portions of the Maple Lawn Mixed Use Development for the property located at 11788 Scaggsville Road, Fulton, Maryland 20759 (the "Project") in a manner consistent with its established character, planning framework, and community context.

The Parties recognize that responsible growth within an established community requires transparency, open communication, and good faith engagement. This MOU memorializes that shared approach. Capitalized terms used but not defined in this MOU shall have the meanings ascribed to such terms in the Second Amended PDP.

#### II. Understanding Regarding the Proposed Development Concept

The HOA and the Developer acknowledge that they have engaged in extensive discussions regarding the proposed amendments to the Project contained in the Second Amended PDP, including:

1. Development of an apartment building in the Business District;
2. Proposed single-family homes in Maple Lawn West;
3. Sequencing of development and construction process; and
4. Long-term community considerations associated with continued buildout.

The Parties further acknowledge that the Second Amended PDP incorporates feedback received from community members through public meetings and individual outreach efforts.

The HOA acknowledges that it has been meaningfully engaged in discussions with the Developer regarding the advancement of the proposed concept and that the Parties are working collaboratively and in good faith as the Developer pursues review and consideration of the Second Amended PDP by the County. The HOA's participation in this MOU reflects its intent to continue working constructively and in good faith with the Developer as the proposal advances.

Nothing contained in this MOU limits or replaces the authority of the County, the Zoning Board, or the Planning Board.

### **III. Matters for Continued Good Faith Coordination**

The Parties acknowledge that certain topics remain subject to continued dialogue and refinement as the Project proceeds through zoning, planning, and implementation stages. These include:

1. Community amenities and potential enhancements;
2. HOA structure(s), governance, and long-term organizational considerations;
3. Timing and process associated with community turnover;
4. Sequencing of development and construction process; and
5. Integration of new residential areas with existing neighborhoods and the Business District to maintain cohesion and compatibility.

The Parties agree to continue addressing these topics collaboratively and in good faith, recognizing that additional detail and refinement will occur through future design, regulatory review, and implementation processes.

### **IV. Ongoing Community Engagement**

The Developer and the HOA will continue to coordinate community engagement opportunities as the Project progresses, including informational meetings or forums designed to ensure that residents remain informed and have meaningful opportunities for input.

Both Parties are committed to fostering a constructive and collaborative environment that encourages respectful dialogue and reduces unnecessary conflict as the Project proceeds through public review.

### **V. Nature of Understanding**

This MOU reflects the Parties' shared understanding and commitment to continued cooperation. It is not intended to create binding development conditions, amend zoning approvals, establish enforceable construction obligations, or predetermine future regulatory or land governance decisions.

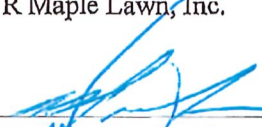
## **VI. Term**

This MOU shall remain in effect through the review, approval, and construction of the Project, unless earlier modified or terminated by written agreement of either the HOA or the Developer.

*[signature page to follow]*

**Developer:**

G & R Maple Lawn, Inc.

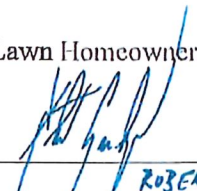
By:   
Name: Michael L. Buch  
Title: President  
Date: March 17, 2026

Olde Scaggsville LLC

By: Michael L. Buch  
Name: MICHAEL L. BUCH  
Title: CO-MANAGER  
Date: March 18, 2026

**HOA:**

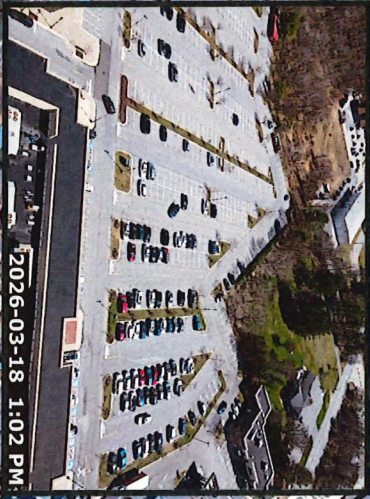
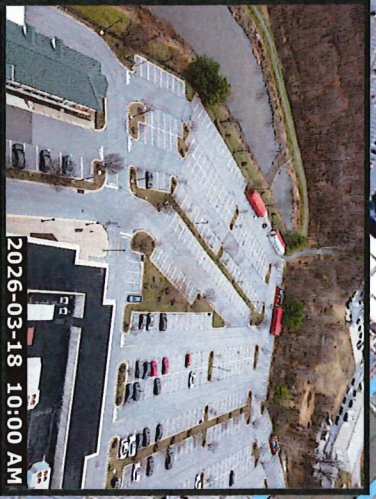
Maple Lawn Homeowners Association, Inc.

By:   
Name: ROBERT GREENBERGER  
Title: PRESIDENT  
Date: March 17, 2026



MAPLE LAWN  
FARMS  
PARKING

WESTSIDE  
DISTRICT



BUSINESS  
DISTRICT

PROP.  
OTHER  
RESIDENTIAL

EX GAS  
STATION  
BUCH —  
PROPERTY







# Maple Lawn Farms

Howard County, Maryland

January 26, 2026

## Traffic Impact Analysis for the Second Amended Preliminary Development Plan (PDP)

### Prepared for:

### Maple Lawn Old Farm, LLC

Mr. Mark Bennett, Sr.

1829 Reisterstown Road, Suite 300

Baltimore, Maryland 21208

(410) 484-8400

mbennett@greenebaumenterprises.com



Ex. 6

## TABLE OF CONTENTS

|                                                                                      |    |
|--------------------------------------------------------------------------------------|----|
| ➤ INTRODUCTION AND SUMMARY OF FINDINGS .....                                         | 1  |
| ➤ EXISTING TRAFFIC CONDITIONS .....                                                  | 3  |
| Figure 1    Location Map for Site and Study Intersections .....                      | 5  |
| Figure 2    Existing Lane Use and Traffic Control .....                              | 6  |
| Figure 3    Existing Peak Hour Traffic Volumes .....                                 | 7  |
| Table 1    LOS Standard .....                                                        | 8  |
| Table 2    Results of Intersection Capacity Analysis (Existing) .....                | 8  |
| ➤ BACKGROUND TRAFFIC CONDITIONS .....                                                | 9  |
| Figure 4    2030 Base Peak Hour Traffic Volumes .....                                | 10 |
| Figure 5    Location Map for Background Developments .....                           | 11 |
| Table 3    Trip Generation for Background Developments .....                         | 12 |
| Figure 6A    Trip Assignment for Developments #1 and #2 .....                        | 13 |
| Figure 6B    Trip Assignment for Development #3 .....                                | 14 |
| Figure 6C    Traffic Adjustment Due to MD 216 and Lime Kiln Road Re-Alignment .....  | 15 |
| Figure 7    2030 Background Peak Hour Traffic Volumes .....                          | 16 |
| Table 4    Results of Intersection Capacity Analysis (Existing and Background) ..... | 17 |
| ➤ TOTAL TRAFFIC CONDITIONS .....                                                     | 18 |
| Figure 8    Site Plan .....                                                          | 20 |
| Table 5    Trip Generation Rates for Site .....                                      | 21 |
| Table 6    Trip Generation for Site .....                                            | 21 |
| Figure 9    Trip Assignment for Site .....                                           | 22 |
| Figure 10    2030 Total Peak Hour Traffic Volumes .....                              | 23 |
| Table 7    Results of Intersection Capacity Analysis .....                           | 24 |
| ➤ RESULTS, RECOMMENDATIONS, AND CONCLUSIONS .....                                    | 25 |

## APPENDICES

**APPENDIX A** – Intersection Turning Movement Counts and Aerial Photographs

**APPENDIX B** –Capacity Analysis Worksheets

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 17243, Expiration Date: 2/7/2027.



Prepared by: Mickey A. Cornelius, P.E., PTOE, RSP1  
Richard Huang, P.E., PTOE

MAC:amr  
(F:\2025\2025-1031\_Maple Lawn West 2025\DOCS\REPORTS\INITIAL\Maple  
Lawn Farms TIA.docx)

*The Traffic Group, Inc. ®*  
*Traffic Engineers & Transportation Planners*

Merging Innovation and Excellence®

CORPORATE OFFICE  
9900 Franklin Square Drive, Suite H  
Baltimore, Maryland 21236  
410-931-6600 Fax: 410-931-6601  
1-800-583-8411  
[www.trafficgroup.com](http://www.trafficgroup.com)



# INTRODUCTION AND SUMMARY OF FINDINGS

## Study Purpose

This Traffic Impact Analysis was conducted in accordance with Howard County and Maryland Department of Transportation State Highway Administration (MDOT SHA) Traffic Study requirements in conjunction with the proposed Second Amended Preliminary Development Plan (PDP) for Maple Lawn Farms. The subject property is located along the north side of MD 216, west US 29. The Second Amended PDP Plan adds the area to the west known as the Maple Lawn West District and revises the Business District. The Maple Lawn West District is proposed to be developed with 253 (32 of which were previously approved) single-family dwelling units, while the Business District is proposed to include 260 apartment units.

## Study Criteria/Methodology

This Traffic Impact Analysis was prepared to comply with Howard County requirements for a PDP Traffic Study. At this stage in the development process, the county MXD zoning regulations require a generalized Traffic Study for the Mixed-Use Development in relation to major road improvements proposed in the General Plan. It should be noted that this is not an Adequate Public Facilities Traffic Impact Study or Chapter 5 Traffic Impact Study which will be required at the next plan submittal stage. Plan Howard 2030, in association with Howard County by Design, identifies the major road improvements in the General Plan. A review of those plans shows that the major improvements for this area have been completed. Therefore, this generalized Traffic Study has been prepared to show how the development can be accommodated by existing and/or proposed access points along the surrounding roads.

Although the Adequate Public Facilities Traffic Study will be submitted at the next stage of the process, the general methodology of the PDP Traffic Study is the same. However, the scope of the PDP Traffic Study is smaller than the future Adequate Public Facilities Traffic Study.

In accordance with typical Howard County and MDOT SHA requirements, intersection capacity analyses were conducted for the study intersections using the Critical Lane Volume (CLV) capacity methodology. Roundabouts are analyzed using the Highway Capacity Manual (HCM) procedures. Level of Service "E" or better conditions are considered acceptable along a state road while Level of Service "D" or better conditions are considered acceptable at the intersection of county roads. MDOT SHA desires Level of Service "D" or better conditions at all locations.

## Scope of Services

The principal scope of services undertaken as part of this study are as follows:

- Conduct a field investigation to collect physical information concerning the nearby road system.
- Conduct new traffic counts at the study intersections.
- Provide an allowance for regional traffic growth on the surrounding roadways.
- Obtain information from Howard County concerning approved development in the surrounding vicinity.
- Conduct trip generation and trip distribution analyses for the approved developments.
- Conduct trip generation and trip distribution analyses for the proposed development of the site.
- Develop total future traffic volume forecasts for a 2030 design year.
- Conduct intersection capacity analyses and level of service evaluations for the study intersections using the CLV methodology or HCM methodology, as appropriate.
- Provide an overall evaluation of the impact of the proposed development of the site on the surrounding area road system.

## Summary of Findings and Recommendations

Based upon the data and analyses presented in this study, the proposed development of the Second Amended PDP for Maple Lawn Farms can be accommodated by the adjacent roadways. The results of the intersection/roundabout capacity analyses conducted as part of this study for existing, background, and total future traffic volumes show that acceptable levels of service can be maintained at all intersections included in this study.

More detailed operational analyses of the study intersections and other intersections in accordance with County and MDOT SHA regulations will be required at the next plan submission stage.



## EXISTING TRAFFIC CONDITIONS

### Site Information

Maple Lawn Farms is located along the north side of MD 216, west of the US 29 as shown in Figure 1. Much of the approved PDP has been completed with the remaining development considered as background traffic in this study. The Second Amended PDP adds the Maple Lawn West District with 253 (32 of which were previously approved) proposed single family dwelling units and adds 260 apartment units to the Business District. Primary access to the Maple Lawn West District is proposed at the intersection of MD 216 with Lime Kiln Road, with that intersection and the MD 216/Murphy Road intersection being redesigned as a roundabout. A connection is also proposed to the north via a connection to Federal Street within the Garden District of Maple Lawn Farms.

The proposed 260 apartment units will be served by the existing road connections to Maple Lawn Boulevard and a connection to Buch Way which provides access to MD 216 via Scaggsville Road at an existing roundabout.

### Study Area

As part of the PDP submission, a generalized Traffic Study is required to illustrate the surrounding roads can accommodate traffic from the proposed development specifically related to planned major road improvements in the General Plan. It is important to note that future traffic studies will be prepared as the development process proceeds to address Adequate Public Facilities and Chapter 5 Traffic Study requirements in accordance with county regulations.

Plan Howard 2030 identifies that the planned major road improvements near Maple Lawn have been completed. These include the expansion of MD 216 and completion of Maple Lawn Boulevard. Therefore, this Traffic Study focuses on access points and roads along the property frontage.

In accordance with Howard County criteria, the nearby road system was evaluated and key intersections identified based upon the site location and access. MD 216 is a Minor Arterial roadway which will serve as the primary access for this project. Secondary access is proposed through the existing Maple Lawn Farms community to the north of the site, which in turn provides access to Johns Hopkins Road. Based upon the location of the subject property and surrounding road system, this Traffic Study addresses the following key intersections:

- MD 216 and Lime Kiln Road
- MD 216 and Murphy Road
- MD 216 and South Maple Lawn Boulevard/School Access
- Johns Hopkins Road and Maple Lawn Boulevard
- MD 216 and Westside Boulevard/Old Columbia Road
- MD 216 and Maple Lawn Boulevard
- Maple Lawn Boulevard and Iager Boulevard
- MD 216 and Scaggsville Road/US 29 Southbound Ramp

Figure 1 also identifies these study locations.

Figure 2 has been prepared to provide a schematic of the surrounding area road system showing the existing lane use and traffic control at the study intersections.

### **Traffic Volumes**

Intersection turning movement counts were conducted from 7–9 AM and 4–6 PM at all study intersections. The counts were conducted on November 19, 2025, while Howard County schools were in session. The existing peak hour traffic volumes are shown in Figure 3.

Copies of all traffic count summary sheets are included in Appendix A. Aerial photographs of the study locations are also included in that Appendix.

### **Analysis of Existing Traffic Conditions**

Intersection capacity analyses were conducted for the existing 2025 traffic volumes using the CLV and HCM methodologies. Table 1 identifies Level of Service criteria for both the HCM and CLV methodologies. The results are shown in Table 2. Copies of the capacity worksheets are included in Appendix B.

A review of the capacity analysis results shows that all study intersections are currently operating with good Level of Service “C” or better conditions under the 2025 existing traffic volumes.



Figure 1. Location Map for Site and Study Intersections

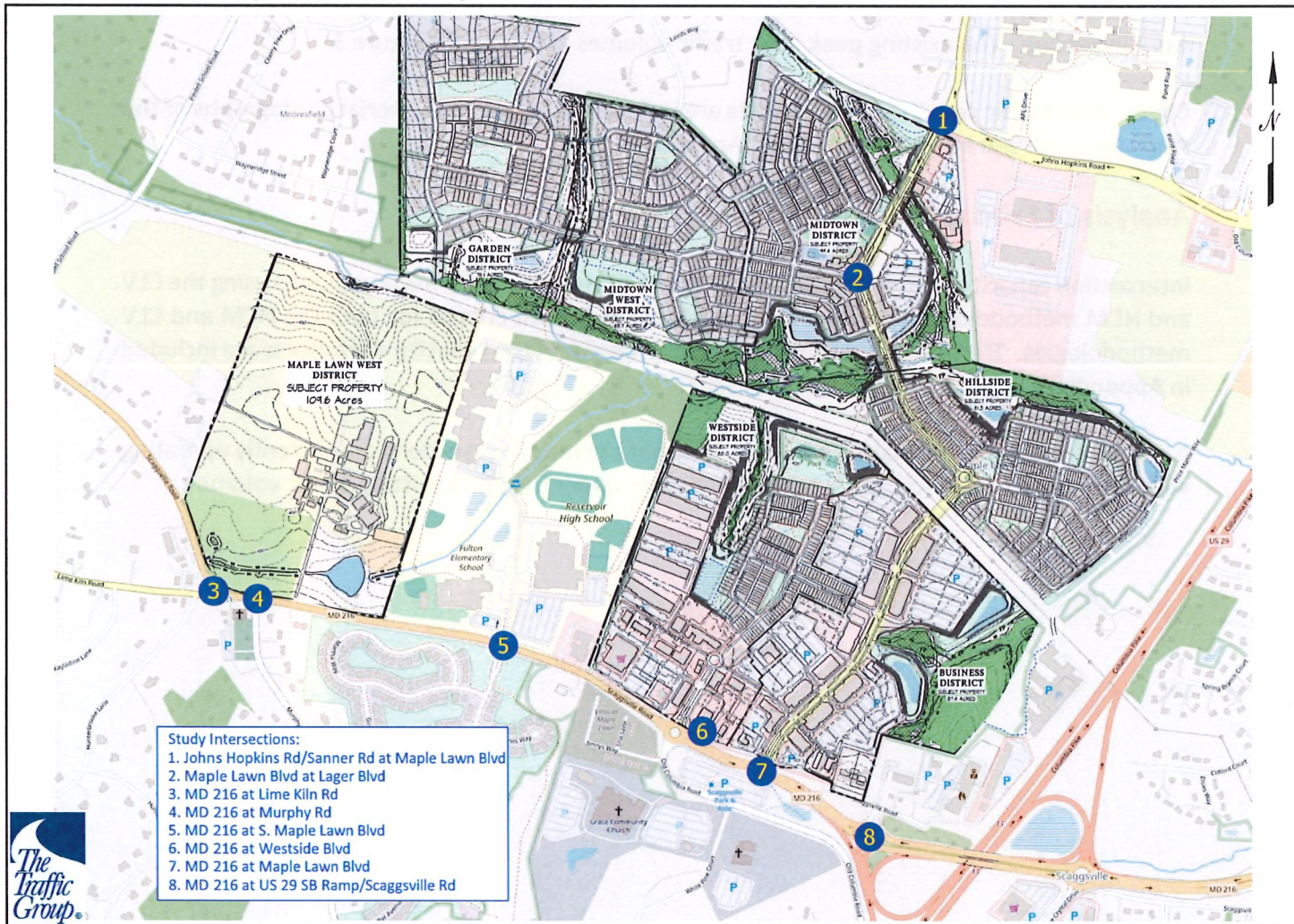




Figure 2. Existing Lane Use and Traffic Control

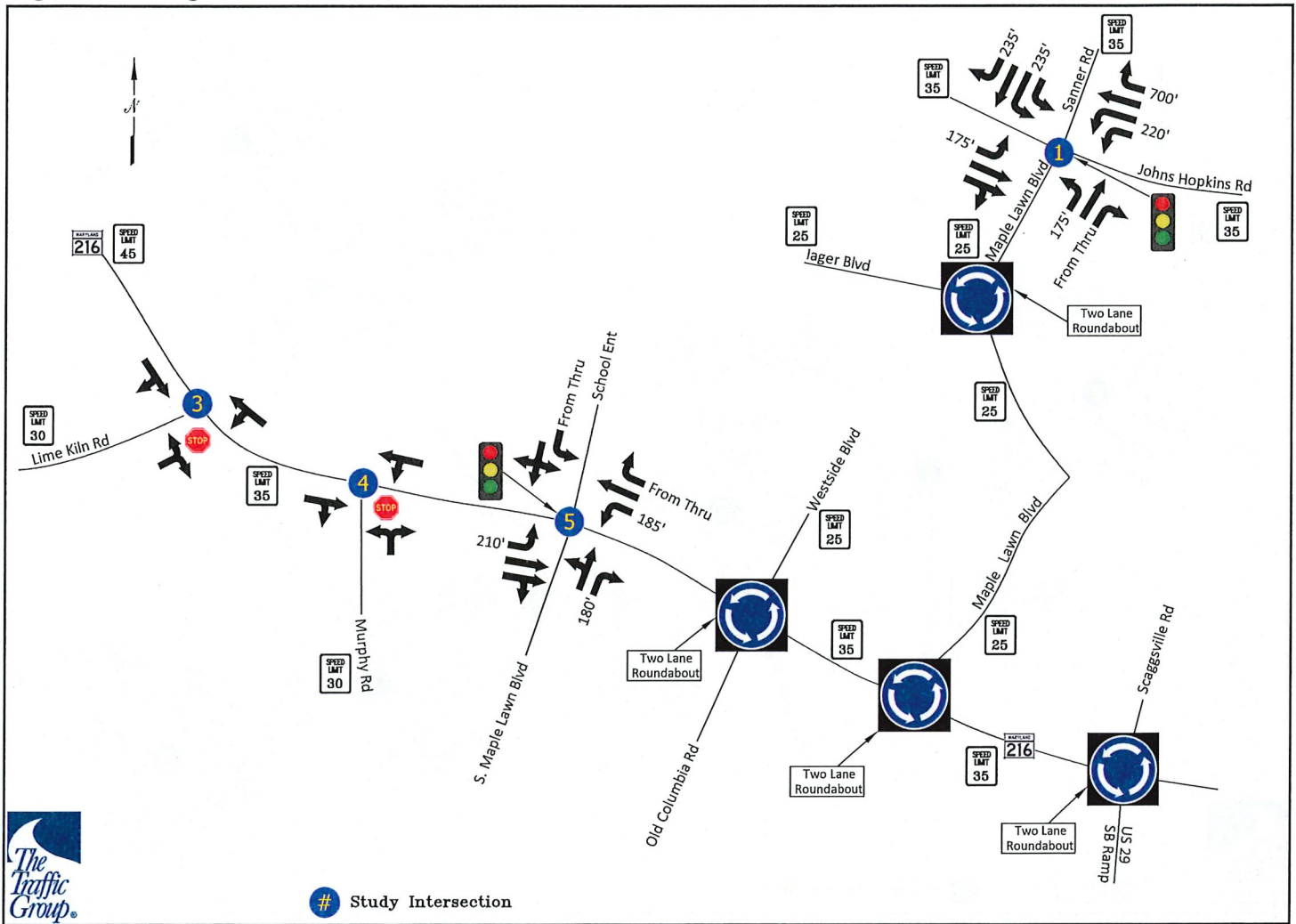


Figure 3. Existing Peak Hour Traffic Volumes

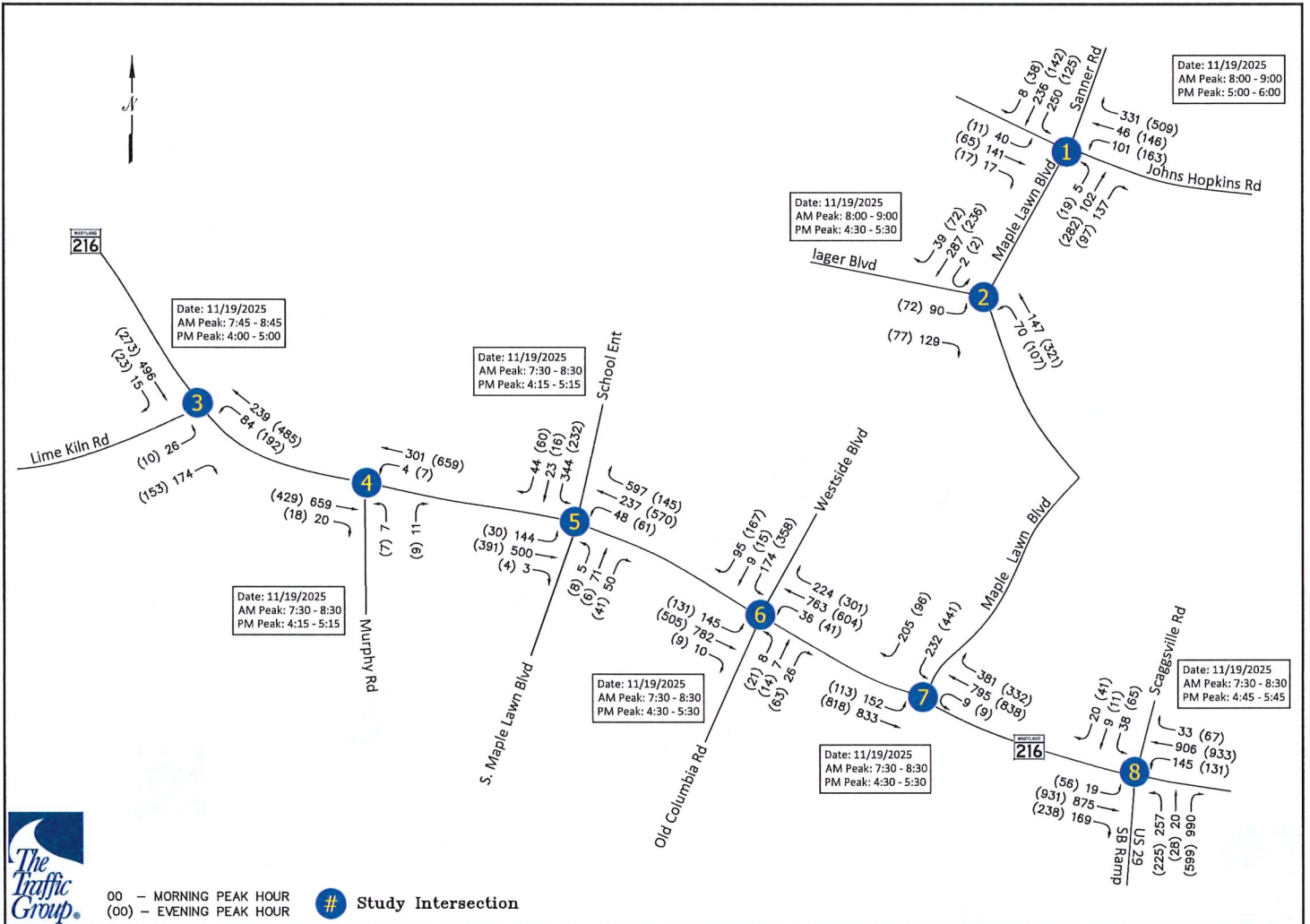


Table 1. LOS Standard

| Unsignalized Intersection |                                    | LOS | CLV             |
|---------------------------|------------------------------------|-----|-----------------|
| LOS                       | Control Delay<br>(Seconds/Vehicle) |     |                 |
| A                         | ≤10                                | A   | ≤1000           |
| B                         | >10 and ≤15                        | B   | >1000 and ≤1150 |
| C                         | >15 and ≤25                        | C   | >1150 and ≤1300 |
| D                         | >25 and ≤35                        | D   | >1300 and ≤1450 |
| E                         | >35 and ≤50                        | E   | >1450 and ≤1600 |
| F                         | >50                                | F   | >1600           |

Table 2. Results of Intersection Capacity Analysis (Existing)

| Intersection                                      | AM Peak Hour                | PM Peak Hour |
|---------------------------------------------------|-----------------------------|--------------|
|                                                   | LOS/CLV                     |              |
| 1. Johns Hopkins Rd at Sanner Rd/Maple Lawn Blvd  | A/473                       | A/802        |
| 3. MD 216 at Lime Kiln Rd                         | A/795                       | B/1032       |
| 4. MD 216 at Murphy Rd                            | A/701                       | A/689        |
| 5. MD 216 at S. Maple Lawn Blvd/School Ent        | A/817                       | A/783        |
| Roundabout                                        | LOS/Delay (seconds/Vehicle) |              |
| 2. Maple Lawn Blvd at Lager Blvd, (v/c)           | A/4.4                       | A/4.2        |
| (v/c), Worst Lane                                 | 0.24                        | 0.18         |
| EB - Lager Blvd                                   | A/5.6                       | A/4.4        |
| NB - Maple Lawn Blvd                              | A/3.7                       | A/4.3        |
| SB - Maple Lawn Blvd                              | A/4.1                       | A/4.0        |
| 6. MD 216 at Westside Blvd/Old Columbia Rd, (v/c) | A/9.3                       | A/8.3        |
| (v/c), Worst Lane                                 | 0.51                        | 0.50         |
| EB - MD 216                                       | A/9.3                       | A/8.0        |
| WB - MD 216                                       | A/8.9                       | A/7.2        |
| NB - Old Columbia Rd                              | B/12.5                      | A/8.6        |
| SB - Westside Blvd                                | B/10.1                      | B/10.5       |
| 7. MD 216 at Maple Lawn Blvd, (v/c)               | B/11.2                      | B/10.9       |
| (v/c), Worst Lane                                 | 0.59                        | 0.68         |
| EB - MD 216                                       | B/10.9                      | B/11.1       |
| WB - MD 216                                       | B/10.4                      | A/7.8        |
| SB - Westside Blvd                                | B/14.0                      | C/17.4       |
| 8. MD 216 at US 29 SB Ramp/Scaggsville Rd, (v/c)  | A/6.5                       | A/6.1        |
| (v/c), Worst Lane                                 | 0.69                        | 0.55         |
| EB - MD 216                                       | A/7.3                       | A/6.1        |
| WB - MD 216                                       | B/12.2                      | B/10.2       |
| NB - Old Columbia Rd                              | A/0.4                       | A/0.1        |
| SB - Westside Blvd                                | C/15.1                      | B/10.9       |

## **BACKGROUND TRAFFIC CONDITIONS**

### **Design Year**

This study addresses a 2030 design year. In order to assess the impact of the proposed development on future traffic conditions, consideration was given to other traffic growth which may impact traffic conditions for the future design year.

Future traffic studies required as the development proceeds through the process will update existing volumes and phase design years.

### **Background Traffic**

Regional traffic growth was considered for the study area roadways using a 2% annual growth rate. Figure 4 shows the resulting 2030 base peak hour traffic volumes.

Additional trips were also considered on the surrounding area roadways due to approved development in the surrounding vicinity. Figure 5 provides a map showing the location of nearby approved developments. Table 3 identifies each of these developments and shows the trip generation rates and projected peak hour trips for each of these sites.

The trips projected to be generated by the approved developments were assigned to the surrounding area road system as shown on the assignment sheets contained in Figure 6A and Figure 6B.

Based upon the proposed Maple Lawn West District access to MD 216 and recommended changes to the Lime Kiln Road and Murphy Road alignments to intersect at a single roundabout location, Figure 6C shows the adjustments to existing traffic volumes.

The trips projected to be generated by the approved developments and traffic adjustments to the MD 216/Lime Kiln Road/Murphy Road intersections were combined with the 2030 base traffic volumes resulting in the 2030 background traffic volumes shown in Figure 7.

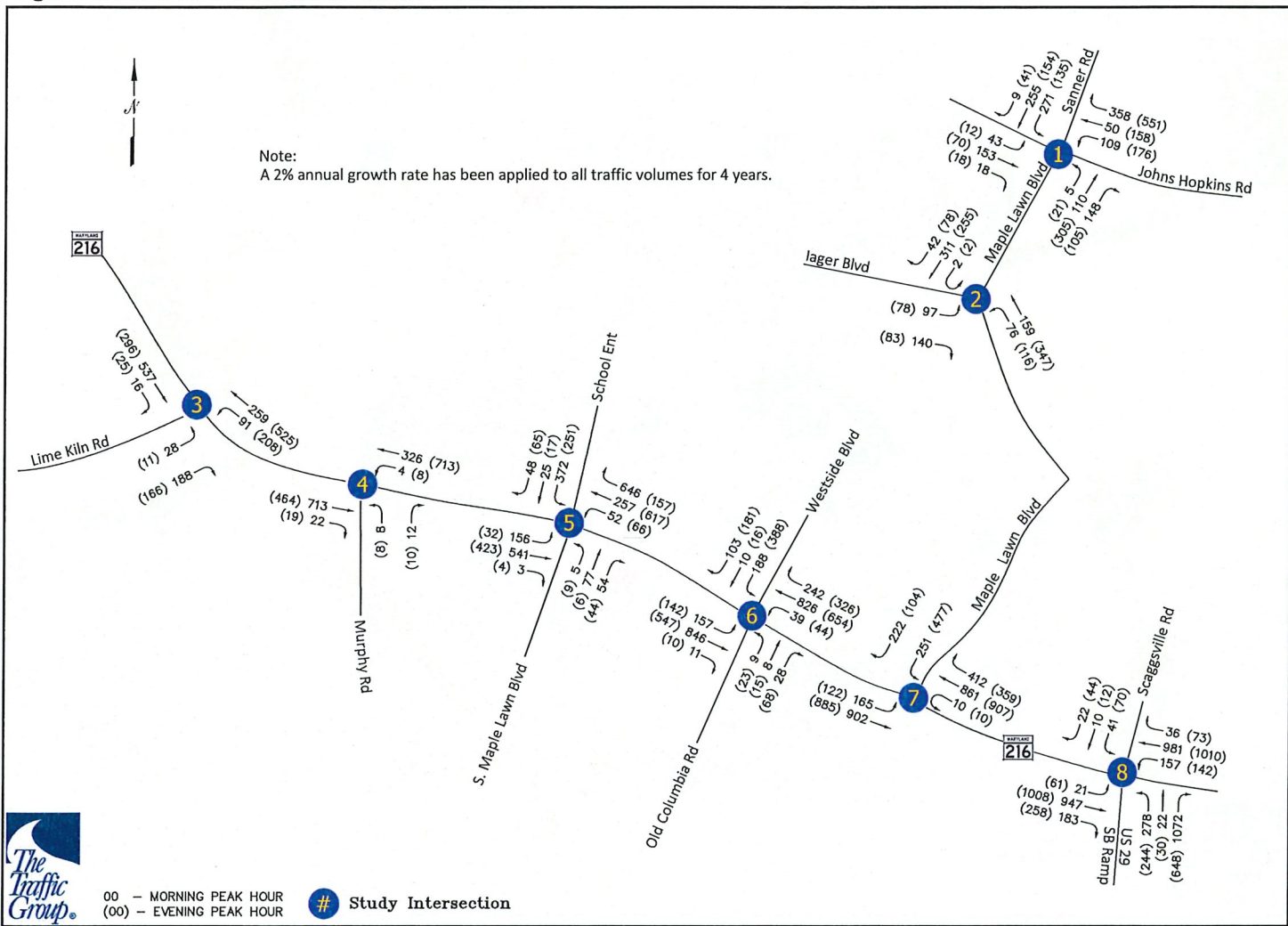
### **Analysis of Background Traffic Conditions**

Intersection capacity analyses were conducted for the study intersections using the background traffic volumes, and the results are shown in Table 4. Copies of the capacity worksheets are contained in Appendix B.

A review of Table 4 indicates that the study intersections are projected to maintain acceptable Level of Service "D" or better conditions during both the weekday morning and evening peak hours.

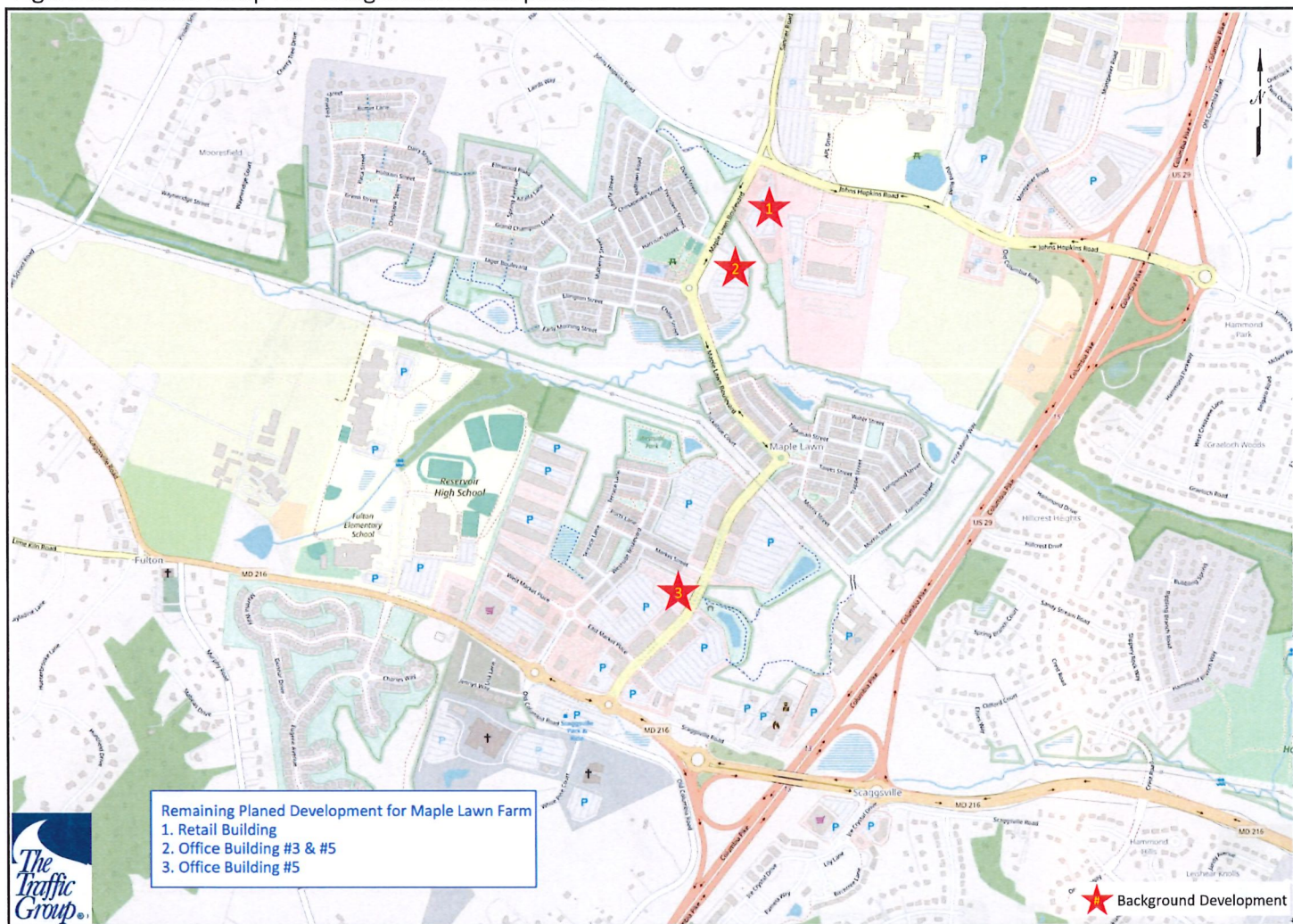


Figure 4. 2030 Base Peak Hour Traffic Volumes



Rh, 251031\INITIAL\Fig.dwg-BASE, F12/16/25

Figure 5. Location Map for Background Developments



Rh, 251031\INITIAL\Fig.dwg-LOC\_DEV, F12/11/25

Table 3. Trip Generation for Background Developments

| Land Use                               | AM Peak Hour |           |            | PM Peak Hour |            |            |
|----------------------------------------|--------------|-----------|------------|--------------|------------|------------|
|                                        | In           | Out       | Total      | In           | Out        | Total      |
| <b>1. Retail Building</b>              |              |           |            |              |            |            |
| Trips/1000 sq.ft.                      | 0.86         | 0.55      | 1.41       | 2.74         | 2.96       | 5.70       |
| Trips/16,575 sq.ft.                    | 14           | 9         | 23         | 45           | 49         | 94         |
| Less 10% Internal Trips                | -1           | -1        | -2         | -5           | -5         | -10        |
| Passby (AM-26%, PM 36%)                | <u>-3</u>    | <u>-2</u> | <u>-5</u>  | <u>-10</u>   | <u>-11</u> | <u>-21</u> |
| <b>Net New Trips</b>                   | <b>10</b>    | <b>6</b>  | <b>16</b>  | <b>30</b>    | <b>33</b>  | <b>63</b>  |
| <b>2. Office Buildings #3 &amp; #4</b> |              |           |            |              |            |            |
| Trips/1000 sq.ft.                      | 1.47         | 0.20      | 1.67       | 0.27         | 1.30       | 1.57       |
| Trips/54,096 sq.ft.                    | 80           | 11        | 91         | 15           | 70         | 85         |
| Less 10% Internal Trips                | <u>-8</u>    | <u>-1</u> | <u>-9</u>  | <u>-2</u>    | <u>-7</u>  | <u>-9</u>  |
| <b>Net New Trips</b>                   | <b>72</b>    | <b>10</b> | <b>82</b>  | <b>13</b>    | <b>63</b>  | <b>76</b>  |
| <b>3. Office Buildings #5</b>          |              |           |            |              |            |            |
| Trips/1000 sq.ft.                      | 1.47         | 0.20      | 1.67       | 0.27         | 1.30       | 1.57       |
| Trips/86,143 sq.ft.                    | 127          | 17        | 144        | 23           | 112        | 135        |
| Less 10% Internal Trips                | <u>-13</u>   | <u>-2</u> | <u>-15</u> | <u>-2</u>    | <u>-11</u> | <u>-13</u> |
| <b>Net New Trips</b>                   | <b>114</b>   | <b>15</b> | <b>129</b> | <b>21</b>    | <b>101</b> | <b>122</b> |

Note: Trip rates obtained from approved study for Maple Lawn Farms.

Figure 6A. Trip Assignment for Developments #1 and #2

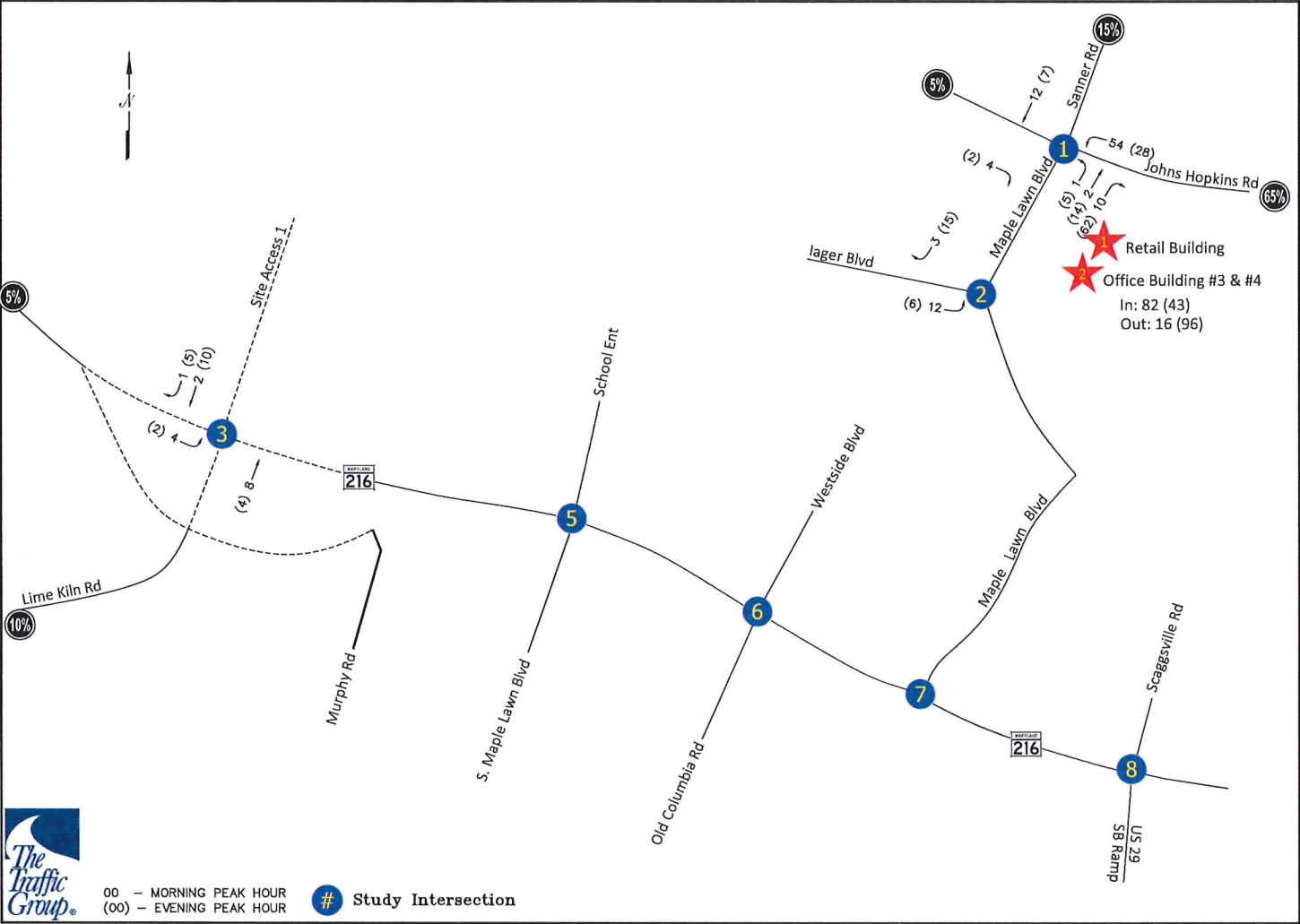




Figure 6B. Trip Assignment for Development #3

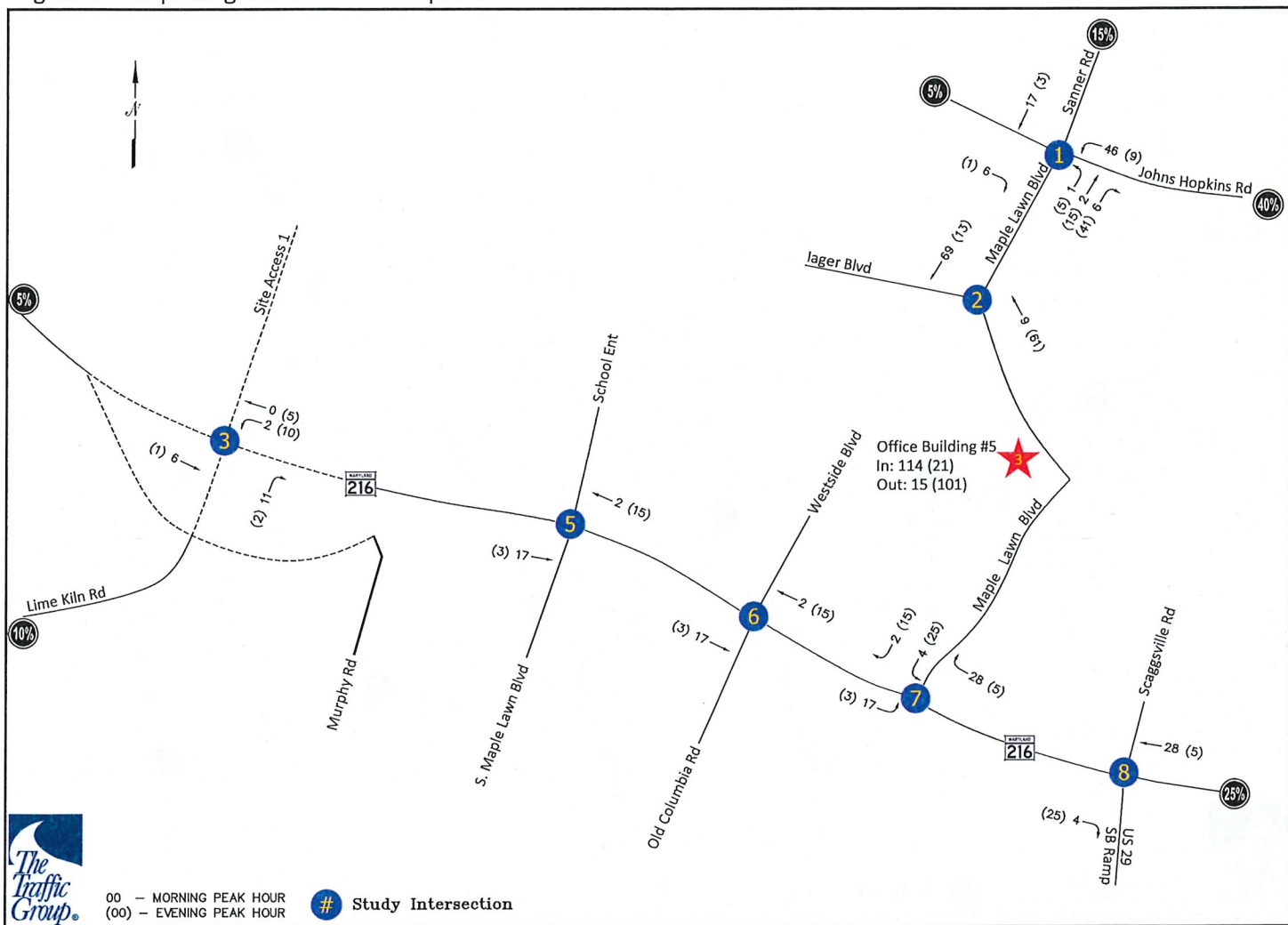


Figure 6C. Traffic Adjustment Due To MD 216 And Lime Kiln Rd Re-Alignment

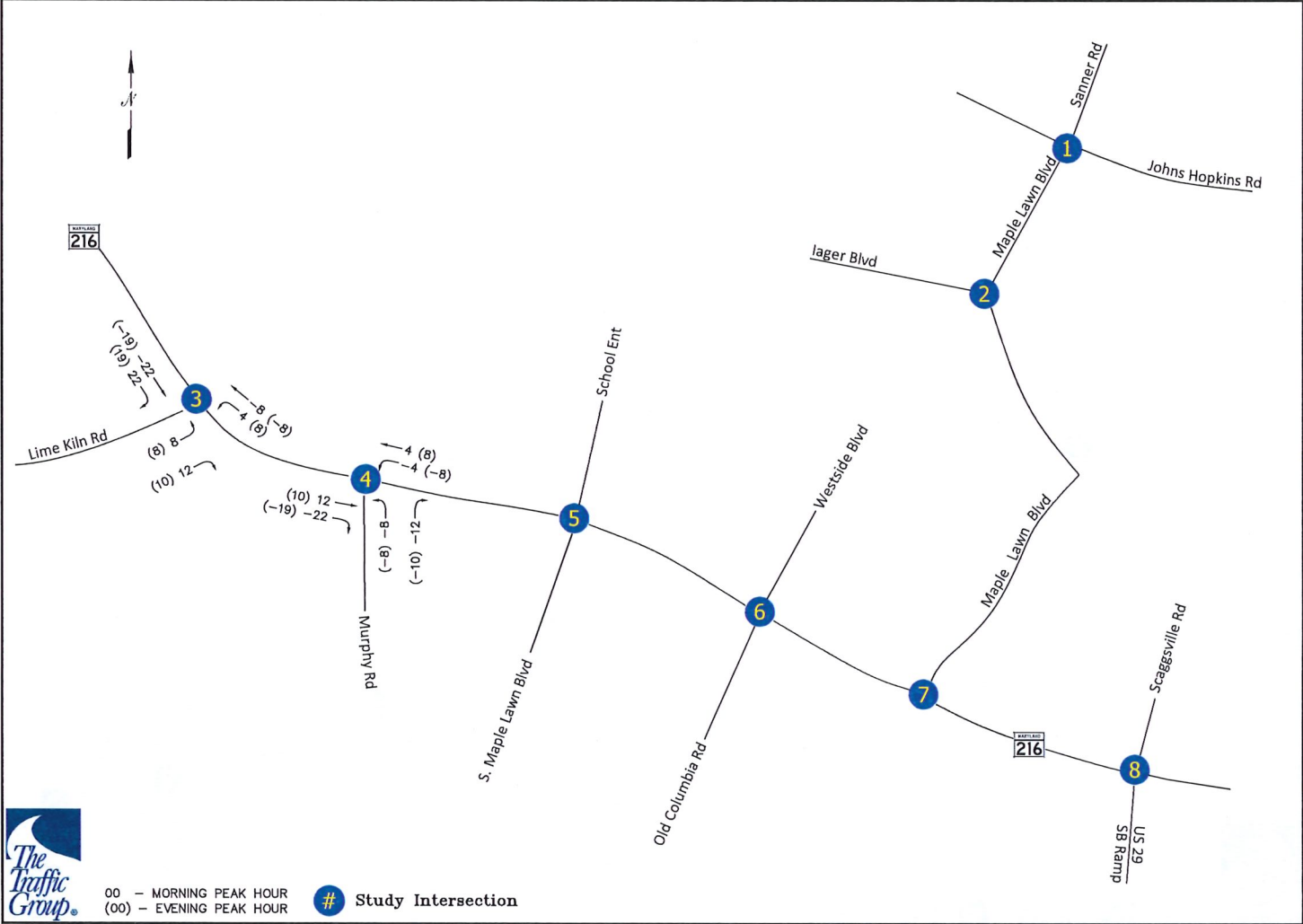


Figure 7. 2030 Background Peak Hour Traffic Volumes

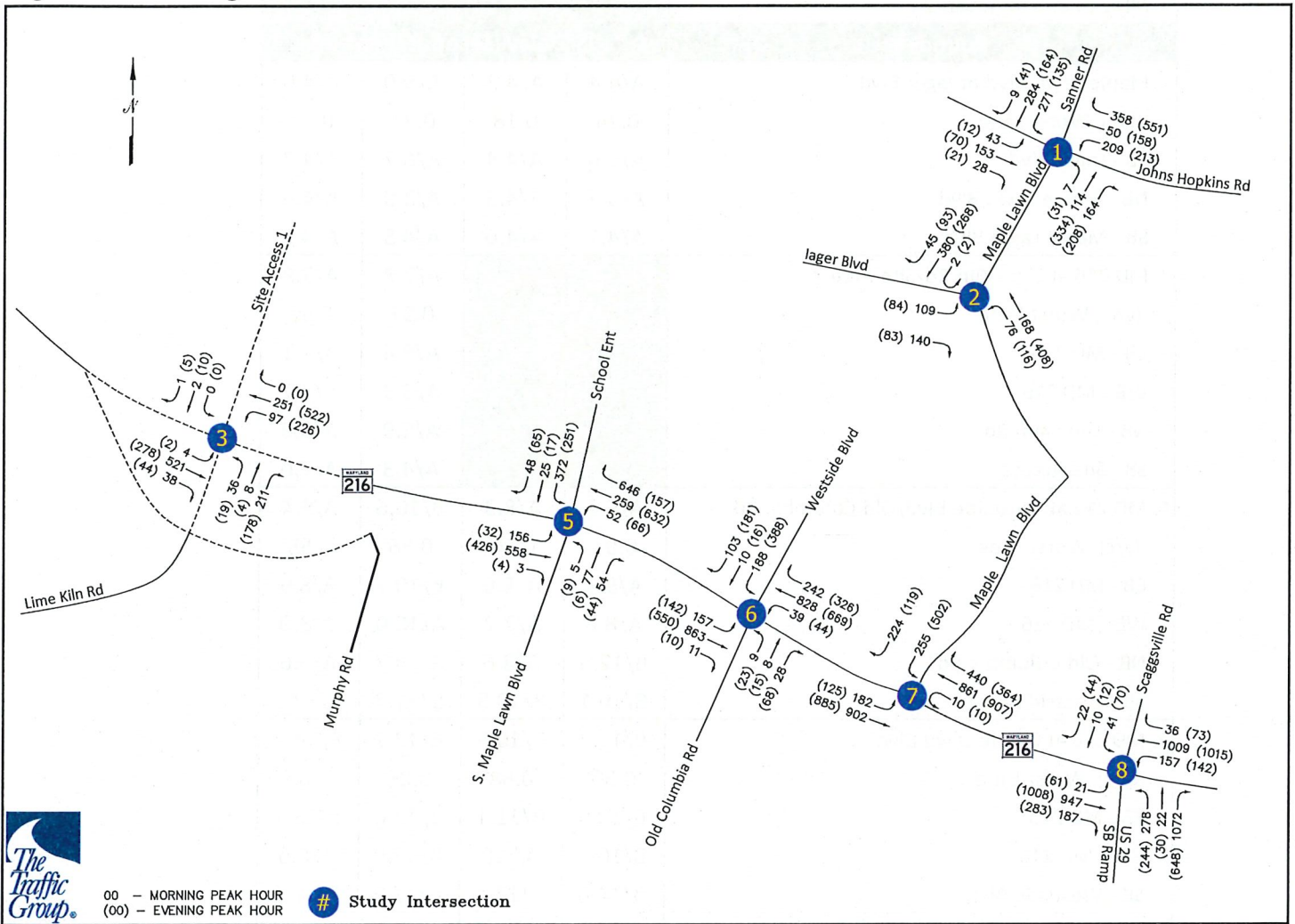


Table 4. Results of Intersection Capacity Analysis (Existing and Background)

| Intersection                                     | Existing                    |        | 2030 Background |        |
|--------------------------------------------------|-----------------------------|--------|-----------------|--------|
|                                                  | AM                          | PM     | AM              | PM     |
|                                                  | LOS/CLV                     |        |                 |        |
| 1. Johns Hopkins Rd at Sanner Rd/Maple Lawn Blvd | A/473                       | A/802  | A/529           | A/897  |
| 3. MD 216 at Lime Kiln Rd                        | A/795                       | B/1032 |                 |        |
| 4. MD 216 at Murphy Rd                           | A/701                       | A/689  |                 |        |
| 5. MD 216 at S. Maple Lawn Blvd/School Ent       | A/817                       | A/783  | A/884           | A/862  |
| 9. MD 216 at Site Access 2                       |                             |        |                 |        |
| Roundabout                                       | LOS/Delay (seconds/Vehicle) |        |                 |        |
| 2. Maple Lawn Blvd at Lager Blvd                 | A/4.4                       | A/4.2  | A/5.0           | A/4.6  |
| (v/c), Worst Lane                                | 0.24                        | 0.18   | 0.29            | 0.23   |
| EB - Lager Blvd                                  | A/5.6                       | A/4.4  | A/6.7           | A/4.7  |
| NB - Maple Lawn Blvd                             | A/3.7                       | A/4.3  | A/3.9           | A/4.8  |
| SB - Maple Lawn Blvd                             | A/4.1                       | A/4.0  | A/4.5           | A/4.2  |
| 3. MD 216 at Lime Kiln Rd/Site Access            |                             |        | A/7.8           | A/7.8  |
| (v/c), Worst Lane                                |                             |        | 0.51            | 0.62   |
| EB - MD 216                                      |                             |        | A/8.4           | A/7.1  |
| WB - MD 216                                      |                             |        | A/5.3           | A/8.7  |
| NB - Lime Kiln Rd                                |                             |        | A/9.9           | A/5.9  |
| SB - Site Access                                 |                             |        | A/4.3           | A/7.0  |
| 6. MD 216 at Westside Blvd/Old Columbia Rd       | A/9.3                       | A/8.3  | B/10.6          | A/9.4  |
| (v/c), Worst Lane                                | 0.51                        | 0.50   | 0.56            | 0.58   |
| EB - MD 216                                      | A/9.3                       | A/8.0  | B/10.7          | A/8.9  |
| WB - MD 216                                      | A/8.9                       | A/7.2  | A/10.0          | A/8.0  |
| NB - Old Columbia Rd                             | B/12.5                      | A/8.6  | B/14.7          | A/9.6  |
| SB - Westside Blvd                               | B/10.1                      | B/10.5 | B/11.7          | B/12.7 |
| 7. MD 216 at Maple Lawn Blvd                     | B/11.2                      | B/10.9 | B/13.7          | B/14.3 |
| (v/c), Worst Lane                                | 0.59                        | 0.68   | 0.68            | 0.83   |
| EB - MD 216                                      | B/10.9                      | B/11.1 | B/13.0          | B/13.7 |
| WB - MD 216                                      | B/10.4                      | A/7.8  | B/12.9          | A/8.6  |
| SB - Westside Blvd                               | B/14.0                      | C/17.4 | C/17.5          | D/26.9 |
| 8. MD 216 at US 29 SB Ramp/Scaggsville Rd        | A/6.5                       | A/6.1  | A/7.9           | A/6.9  |
| (v/c), Worst Lane                                | 0.69                        | 0.55   | 0.74            | 0.61   |
| EB - MD 216                                      | A/7.3                       | A/6.1  | A/8.1           | A/6.6  |
| WB - MD 216                                      | B/12.2                      | B/10.2 | C/15.4          | B/11.8 |
| NB - Old Columbia Rd                             | A/0.4                       | A/0.1  | A/0.5           | A/0.1  |
| SB - Westside Blvd                               | C/15.1                      | B/10.9 | C/18.7          | B/12.6 |



## TOTAL TRAFFIC CONDITIONS

### Site Information

The Maple Lawn West District is located along the north side of MD 216 near the intersection of that roadway with Lime Kiln Road. That portion of the site is proposed to be developed with 253 single-family dwelling units. While 32 units were previously approved, this study assumes all 253 units as new site trips. Primary access to that portion of the site is proposed via the development of a new roundabout incorporating the site access, Murphy Road, Lime Kiln Road, and MD 216. Secondary access is also proposed through the existing Maple Lawn community to the north via a connection to Federal Street.

The proposed 260 apartment units within the Business District are located in the southeast corner of the site. Access is available through the site to/from Maple Lawn Boulevard. A connection will also be provided to Buch Way which will provide a connection to MD 216 at the roundabout intersection with Scaggsville Road and the US 29 southbound ramps.

Figure 8 provides a concept showing the Maple Lawn Farms Districts.

### Trip Generation/Distribution

Trip generation rates were obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (12<sup>th</sup> Edition) for the proposed development of the site. Table 5 provides the trip generation rates, and Table 6 shows the projected peak hour trips to be generated.

The peak hour trips projected to be generated by Maple Lawn West were assigned to the surrounding area road system as shown in Figure 9. These trips were combined with the background traffic volumes resulting in the 2030 total peak hour traffic volumes shown in Figure 10.

### Analysis of Total Traffic Conditions

Intersection capacity analyses were conducted for the study intersections using the appropriate methodology, and the results are shown in Table 7. Copies of the capacity worksheets are contained in Appendix B to this report.

A review of capacity analysis results shown in Table 7 indicates that all of the study area intersections are projected to operate at acceptable levels of service during both the weekday morning and evening peak hours. It should be noted that the proposed roundabout at the future Maple Lawn West District access along MD 216 is projected to operate with good Level of Service "B" conditions during both of the weekday morning and evening peak hours. This roundabout will improve the current condition which includes multiple access points along MD 216 with Lime Kiln Road and Murphy Road.

The results of the traffic evaluations for the Seconded Amended PDP for Maple Lawn Farms show that the surrounding road system and proposed access locations are projected to operate with acceptable traffic conditions. More detailed traffic studies will be prepared in accordance with Howard County and MDOT requirements for future plan stage submissions.



### Figure 8. Site Plan

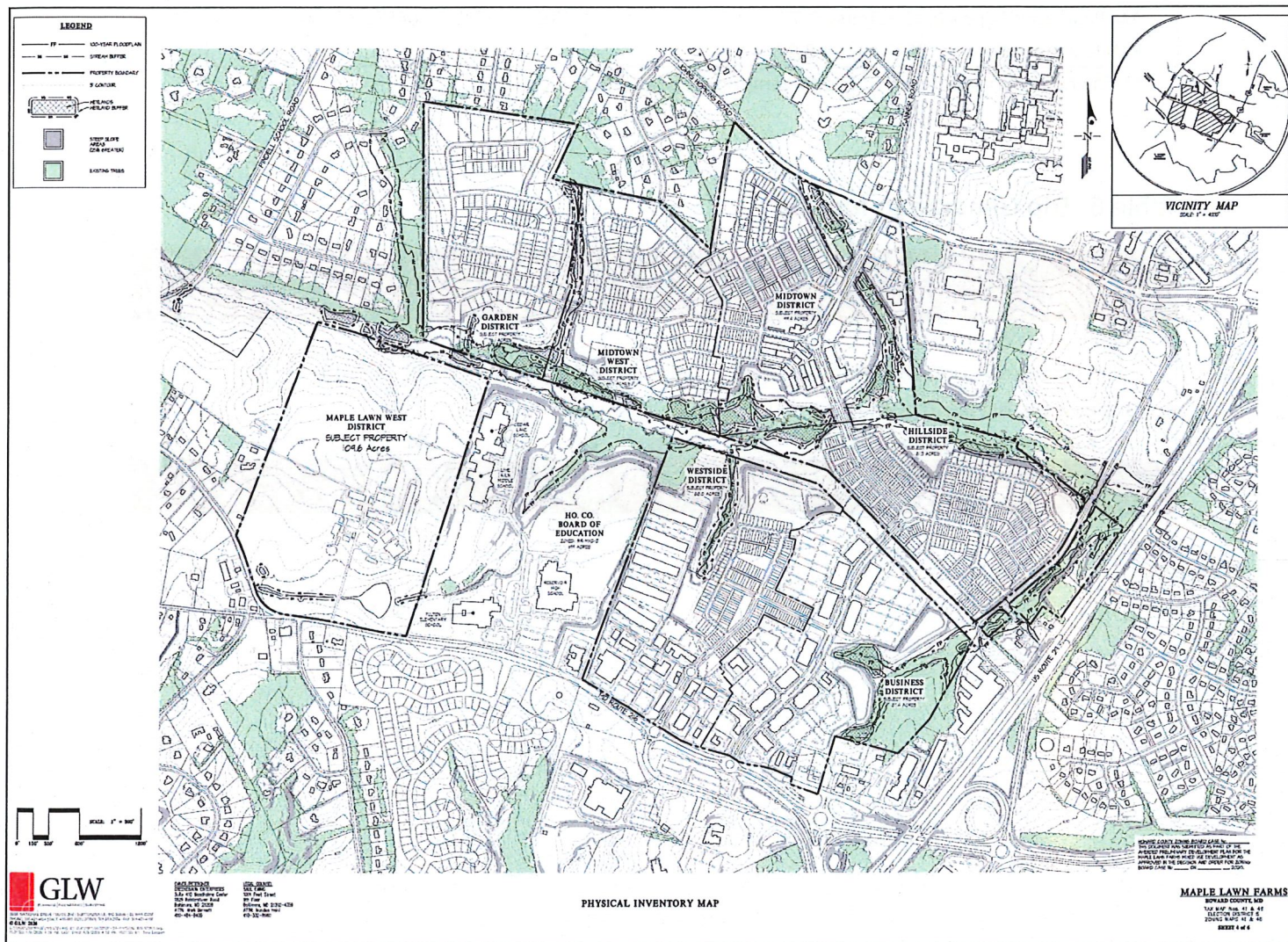


Table 5. Trip Generation Rates for Site

| Formula/Rate                                                    | Directional Distribution |     |              |     |
|-----------------------------------------------------------------|--------------------------|-----|--------------|-----|
|                                                                 | AM Peak Hour             |     | PM Peak Hour |     |
|                                                                 | IN                       | OUT | IN           | OUT |
| <b>Single-Family Detached (ITE-210, Units)</b>                  |                          |     |              |     |
| AM Peak Hour Trips = $0.67 \times \text{Units} + 5.59$          | 27%                      | 73% | 62%          | 38% |
| Ln(PM Peak Hour Trips) = $0.92 \text{ LN}(\text{Units}) + 0.33$ |                          |     |              |     |
| <b>Multifamily Housing, Mid-Rise (ITE-221, Units)</b>           |                          |     |              |     |
| AM Peak Hour Trips = $0.42 \times \text{Units} - 7.77$          | 23%                      | 77% | 64%          | 36% |
| PM Peak Hour Trips = $0.36 \times \text{Units} + 3.07$          |                          |     |              |     |

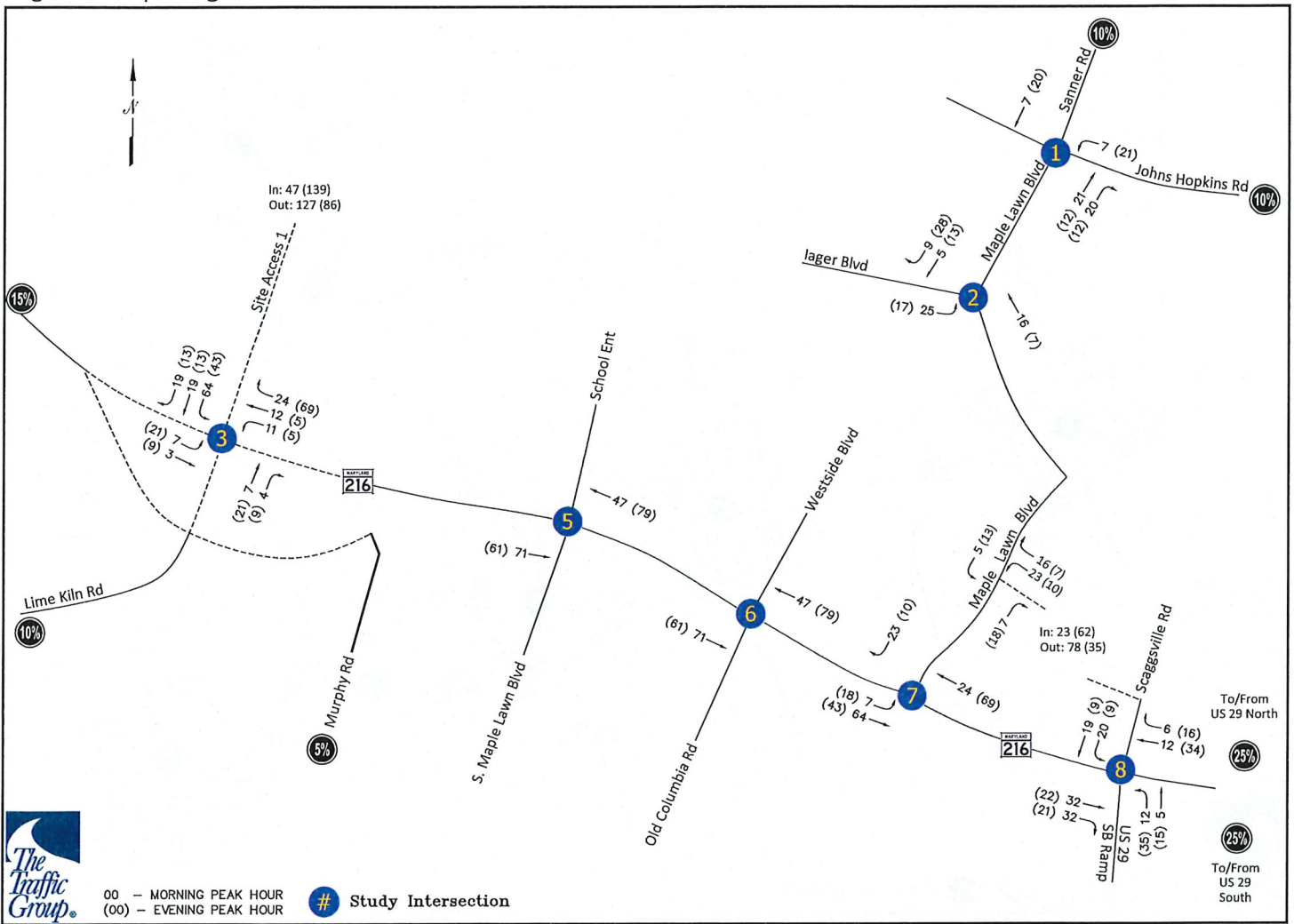
\*\* Trip rates obtained from ITE Trip Generation Manual 12th Edition, 2025.

Table 6. Trip Generation for Site

| Land Use                       | Size |       | AM Peak Hour |     |       | PM Peak Hour |     |       |  |
|--------------------------------|------|-------|--------------|-----|-------|--------------|-----|-------|--|
|                                |      |       | In           | Out | Total | In           | Out | Total |  |
| Maple Lawn West                |      |       |              |     |       |              |     |       |  |
| Single Family Detached Houses  | 253  | units | 47           | 128 | 175   | 140          | 86  | 226   |  |
| Business District Apartments   |      |       |              |     |       |              |     |       |  |
| Multifamily Housing (Mid Rise) | 260  | units | 23           | 78  | 101   | 62           | 35  | 97    |  |
| Total Trips                    |      |       | 70           | 206 | 276   | 202          | 121 | 323   |  |



Figure 9. Trip Assignment for Site



Rh, 251031\INITIAL\Figrev.dwg-STN, F12/29/25

Figure 10. 2030 Total Peak Hour Traffic Volumes

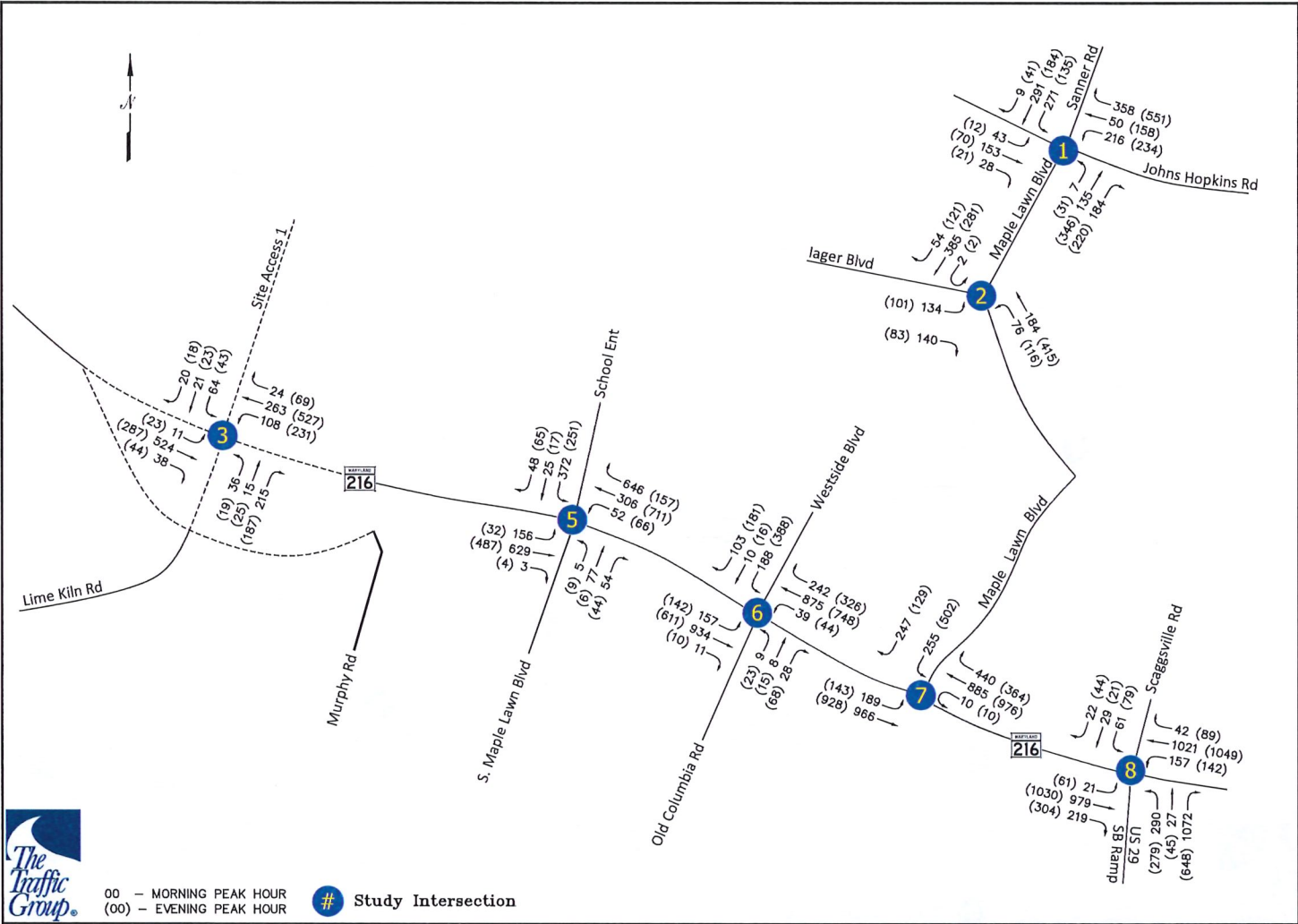


Table 7. Results of Intersection Capacity Analysis

| Intersection                                     | Existing                    |        | 2030 Background |        | 2030 Total |        |
|--------------------------------------------------|-----------------------------|--------|-----------------|--------|------------|--------|
|                                                  | AM                          | PM     | AM              | PM     | AM         | PM     |
|                                                  | LOS/CLV                     |        |                 |        |            |        |
| 1. Johns Hopkins Rd at Sanner Rd/Maple Lawn Blvd | A/473                       | A/802  | A/529           | A/897  | A/536      | A/909  |
| 3. MD 216 at Lime Kiln Rd                        | A/795                       | B/1032 |                 |        |            |        |
| 4. MD 216 at Murphy Rd                           | A/701                       | A/689  |                 |        |            |        |
| 5. MD 216 at S. Maple Lawn Blvd/School Ent       | A/817                       | A/783  | A/884           | A/862  | A/884      | A/941  |
| Roundabout                                       | LOS/Delay (seconds/Vehicle) |        |                 |        |            |        |
| 2. Maple Lawn Blvd at Lager Blvd                 | A/4.4                       | A/4.2  | A/5.0           | A/4.6  | A/5.2      | A/4.7  |
| (v/c), Worst Lane                                | 0.24                        | 0.18   | 0.29            | 0.23   | 0.33       | 0.23   |
| EB - Lager Blvd                                  | A/5.6                       | A/4.4  | A/6.7           | A/4.7  | A/7.2      | A/5.0  |
| NB - Maple Lawn Blvd                             | A/3.7                       | A/4.3  | A/3.9           | A/4.8  | A/4.1      | A/4.9  |
| SB - Maple Lawn Blvd                             | A/4.1                       | A/4.0  | A/4.5           | A/4.2  | A/4.6      | A/4.4  |
| 3. MD 216 at Lime Kiln Rd/Site Access            |                             |        | A/7.8           | A/7.8  | A/9.0      | B/10.4 |
| (v/c), Worst Lane                                |                             |        | 0.51            | 0.62   | 0.58       | 0.72   |
| EB - MD 216                                      |                             |        | A/8.4           | A/7.1  | B/10.6     | A/8.3  |
| WB - MD 216                                      |                             |        | A/5.3           | A/8.7  | A/5.9      | B/12.4 |
| NB - Lime Kiln Rd                                |                             |        | A/9.9           | A/5.9  | B/11.7     | A/7.0  |
| SB - Site Access                                 |                             |        | A/4.3           | A/7.0  | A/5.7      | A/8.9  |
| 6. MD 216 at Westside Blvd/Old Columbia Rd       | A/9.3                       | A/8.3  | B/10.6          | A/9.4  | B/11.3     | B/10.3 |
| (v/c), Worst Lane                                | 0.51                        | 0.50   | 0.56            | 0.58   | 0.60       | 0.62   |
| EB - MD 216                                      | A/9.3                       | A/8.0  | B/10.7          | A/8.9  | B/11.6     | A/9.5  |
| WB - MD 216                                      | A/8.9                       | A/7.2  | A/10.0          | A/8.0  | B/10.5     | A/8.5  |
| NB - Old Columbia Rd                             | B/12.5                      | A/8.6  | B/14.7          | A/9.6  | C/16.3     | B/10.3 |
| SB - Westside Blvd                               | B/10.1                      | B/10.5 | B/11.7          | B/12.7 | B/12.6     | B/14.5 |
| 7. MD 216 at Maple Lawn Blvd                     | B/11.2                      | B/10.9 | B/13.7          | B/14.3 | B/14.8     | C/16.3 |
| (v/c), Worst Lane                                | 0.59                        | 0.68   | 0.68            | 0.83   | 0.70       | 0.88   |
| EB - MD 216                                      | B/10.9                      | B/11.1 | B/13.0          | B/13.7 | B/14.3     | B/14.9 |
| WB - MD 216                                      | B/10.4                      | A/7.8  | B/12.9          | A/8.6  | B/13.5     | A/9.5  |
| SB - Westside Blvd                               | B/14.0                      | C/17.4 | C/17.5          | D/26.9 | C/19.4     | D/33.2 |
| 8. MD 216 at US 29 SB Ramp/Scaggsville Rd        | A/6.5                       | A/6.1  | A/7.9           | A/6.9  | A/8.7      | A/7.8  |
| (v/c), Worst Lane                                | 0.69                        | 0.55   | 0.74            | 0.61   | 0.74       | 0.67   |
| EB - MD 216                                      | A/7.3                       | A/6.1  | A/8.1           | A/6.6  | A/8.9      | A/6.9  |
| WB - MD 216                                      | B/12.2                      | B/10.2 | C/15.4          | B/11.8 | C/16.6     | B/14.0 |
| NB - Old Columbia Rd                             | A/0.4                       | A/0.1  | A/0.5           | A/0.1  | A/0.5      | A/0.1  |
| SB - Westside Blvd                               | C/15.1                      | B/10.9 | C/18.7          | B/12.6 | C/20.5     | B/14.1 |



## **RESULTS, RECOMMENDATIONS, AND CONCLUSIONS**

### **Study Purpose**

This Traffic Impact Analysis was conducted in accordance with Howard County and MDOT SHA Traffic Study requirements in conjunction with the proposed Second Amended PDP for Maple Lawn Farms. The subject property is located along the north side of MD 216, west US 29. The Seconded Amended PDP Plan adds the area to the west known as the Maple Lawn West District and revises the Business District. The Maple Lawn West District is proposed to be developed with 253 single-family dwelling units, while the Business District is proposed to include 260 apartment units.

### **Study Criteria/Methodology**

This Traffic Impact Analysis was prepared to comply with Howard County requirements for a PDP Traffic Study. At this stage in the development process, the county MXD zoning regulations require a generalized Traffic Study for the Mixed-Use Development in relation to major road improvements proposed in the General Plan. It should be noted that this is not an Adequate Public Facilities Traffic Impact Study or Chapter 5 Traffic Impact Study which will be required at the next plan submittal stage. Plan Howard 2030, in association with Howard County by Design, identifies the major road improvements in the General Plan. A review of those plans shows that the major improvements for this area have been completed. Therefore, this generalized Traffic Study has been prepared to show how the development can be accommodated by existing and/or proposed access points along the surrounding roads.

Although the Adequate Public Facilities Traffic Study will be submitted at the next stage of the process, the general methodology of the PDP Traffic Study is the same. However, the scope of the PDP Traffic Study is smaller than the future Adequate Public Facilities Traffic Study.

In accordance with typical Howard County and MDOT SHA requirements, intersection capacity analyses were conducted for the study intersections using the CLV capacity methodology. Roundabouts are analyzed using the HCM procedures. Level of Service "E" or better conditions are considered acceptable along a state road while Level of Service "D" or better conditions are considered acceptable at the intersection of county roads. MDOT SHA desires Level of Service "D" or better conditions at all locations.

### **Summary of Findings and Recommendations**

Based upon the data and analyses presented in this study, the proposed development of the Second Amended PDP for Maple Lawn Farms can be accommodated by the adjacent roadways. The results of the intersection/roundabout capacity analyses conducted as part of this study for existing, background, and total future traffic volumes show that acceptable levels of service can be maintained at all intersections included in this study.



More detailed operational analyses of the study intersections and other intersections in accordance with County and MDOT SHA regulations will be required at the next plan submission stage.

## APPENDIX A

### Intersection Turning Movement Counts and Aerial Photographs



| TOTALS TURNING MOVEMENT COUNT - SUMMARY                                                                             |                                       |      |      |      |       |                                                |      |      |      |       |                                                                                      |      |      |      |       |                                             |      |      |      |       |                           |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------|------|------|------|-------|------------------------------------------------|------|------|------|-------|--------------------------------------------------------------------------------------|------|------|------|-------|---------------------------------------------|------|------|------|-------|---------------------------|
| Intersection of: Maple Lawn Boulevard - Sanner Road<br>and: Johns Hopkins Road<br>Location: Howard County, Maryland |                                       |      |      |      |       |                                                |      |      |      |       | Counted by: VCU<br>Date: November 19, 2025<br>Weather: Cold/Cloudy<br>Entered by: CP |      |      |      |       | Wednesday<br>Star Rating: 4                 |      |      |      |       |                           |
| TIME                                                                                                                | TRAFFIC FROM NORTH<br>on: Sanner Road |      |      |      |       | TRAFFIC FROM SOUTH<br>on: Maple Lawn Boulevard |      |      |      |       | TRAFFIC FROM EAST<br>on: Johns Hopkins Road                                          |      |      |      |       | TRAFFIC FROM WEST<br>on: Johns Hopkins Road |      |      |      |       | TOTAL<br>N + S<br>+ E + W |
|                                                                                                                     | RIGHT                                 | THRU | LEFT | U-TN | TOTAL | RIGHT                                          | THRU | LEFT | U-TN | TOTAL | RIGHT                                                                                | THRU | LEFT | U-TN | TOTAL | RIGHT                                       | THRU | LEFT | U-TN | TOTAL |                           |
| AM                                                                                                                  |                                       |      |      |      |       |                                                |      |      |      |       |                                                                                      |      |      |      |       |                                             |      |      |      |       |                           |
| 7:00 - 7:15                                                                                                         | 1                                     | 21   | 35   | 0    | 57    | 20                                             | 14   | 2    | 0    | 36    | 36                                                                                   | 5    | 9    | 0    | 50    | 1                                           | 26   | 1    | 0    | 28    | 171                       |
| 7:15 - 7:30                                                                                                         | 2                                     | 30   | 33   | 0    | 65    | 25                                             | 16   | 0    | 0    | 41    | 51                                                                                   | 9    | 21   | 0    | 81    | 6                                           | 22   | 12   | 0    | 40    | 227                       |
| 7:30 - 7:45                                                                                                         | 3                                     | 46   | 59   | 0    | 108   | 23                                             | 26   | 2    | 0    | 51    | 60                                                                                   | 12   | 18   | 0    | 90    | 2                                           | 27   | 5    | 0    | 34    | 283                       |
| 7:45 - 8:00                                                                                                         | 1                                     | 59   | 79   | 0    | 139   | 28                                             | 24   | 1    | 0    | 53    | 52                                                                                   | 12   | 18   | 1    | 83    | 0                                           | 32   | 6    | 0    | 38    | 313                       |
| 8:00 - 8:15                                                                                                         | 2                                     | 66   | 47   | 0    | 115   | 25                                             | 22   | 1    | 0    | 48    | 89                                                                                   | 4    | 15   | 0    | 108   | 5                                           | 31   | 13   | 0    | 49    | 320                       |
| 8:15 - 8:30                                                                                                         | 3                                     | 52   | 63   | 0    | 118   | 33                                             | 26   | 2    | 0    | 61    | 73                                                                                   | 16   | 27   | 0    | 116   | 5                                           | 41   | 7    | 0    | 53    | 348                       |
| 8:30 - 8:45                                                                                                         | 1                                     | 61   | 72   | 0    | 134   | 39                                             | 26   | 1    | 0    | 66    | 80                                                                                   | 12   | 27   | 0    | 119   | 5                                           | 27   | 12   | 0    | 44    | 363                       |
| 8:45 - 9:00                                                                                                         | 2                                     | 57   | 68   | 0    | 127   | 40                                             | 28   | 1    | 0    | 69    | 89                                                                                   | 14   | 32   | 0    | 135   | 2                                           | 42   | 8    | 0    | 52    | 383                       |
| 2 Hr Totals                                                                                                         | 15                                    | 392  | 456  | 0    | 863   | 233                                            | 182  | 10   | 0    | 425   | 530                                                                                  | 84   | 167  | 1    | 782   | 26                                          | 248  | 64   | 0    | 338   | 2408                      |
| 1 Hr Totals                                                                                                         |                                       |      |      |      |       |                                                |      |      |      |       |                                                                                      |      |      |      |       |                                             |      |      |      |       |                           |
| 7:00 - 8:00                                                                                                         | 7                                     | 156  | 206  | 0    | 369   | 96                                             | 80   | 5    | 0    | 181   | 199                                                                                  | 38   | 66   | 1    | 304   | 9                                           | 107  | 24   | 0    | 140   | 994                       |
| 7:15 - 8:15                                                                                                         | 8                                     | 201  | 218  | 0    | 427   | 101                                            | 88   | 4    | 0    | 193   | 252                                                                                  | 37   | 72   | 1    | 362   | 13                                          | 112  | 36   | 0    | 161   | 1143                      |
| 7:30 - 8:30                                                                                                         | 9                                     | 223  | 248  | 0    | 480   | 109                                            | 98   | 6    | 0    | 213   | 274                                                                                  | 44   | 78   | 1    | 397   | 12                                          | 131  | 31   | 0    | 174   | 1264                      |
| 7:45 - 8:45                                                                                                         | 7                                     | 238  | 261  | 0    | 506   | 125                                            | 98   | 5    | 0    | 228   | 294                                                                                  | 44   | 87   | 1    | 426   | 15                                          | 131  | 38   | 0    | 184   | 1344                      |
| 8:00 - 9:00                                                                                                         | 8                                     | 236  | 250  | 0    | 494   | 137                                            | 102  | 5    | 0    | 244   | 331                                                                                  | 46   | 101  | 0    | 478   | 17                                          | 141  | 40   | 0    | 198   | 1414                      |
| PEAK HOUR                                                                                                           |                                       |      |      |      |       |                                                |      |      |      |       |                                                                                      |      |      |      |       |                                             |      |      |      |       |                           |
| 8:00 - 9:00                                                                                                         | 8                                     | 236  | 250  | 0    | 494   | 137                                            | 102  | 5    | 0    | 244   | 331                                                                                  | 46   | 101  | 0    | 478   | 17                                          | 141  | 40   | 0    | 198   | 1414                      |
| PM                                                                                                                  |                                       |      |      |      |       |                                                |      |      |      |       |                                                                                      |      |      |      |       |                                             |      |      |      |       |                           |
| 4:00 - 4:15                                                                                                         | 5                                     | 40   | 49   | 0    | 94    | 23                                             | 56   | 2    | 0    | 81    | 110                                                                                  | 34   | 35   | 0    | 179   | 2                                           | 14   | 2    | 0    | 18    | 372                       |
| 4:15 - 4:30                                                                                                         | 5                                     | 45   | 52   | 0    | 102   | 25                                             | 58   | 0    | 0    | 83    | 92                                                                                   | 30   | 34   | 0    | 156   | 6                                           | 10   | 5    | 0    | 21    | 362                       |
| 4:30 - 4:45                                                                                                         | 5                                     | 44   | 45   | 0    | 94    | 32                                             | 61   | 2    | 0    | 95    | 105                                                                                  | 33   | 30   | 0    | 168   | 0                                           | 19   | 2    | 0    | 21    | 378                       |
| 4:45 - 5:00                                                                                                         | 7                                     | 33   | 34   | 0    | 74    | 21                                             | 55   | 1    | 0    | 77    | 103                                                                                  | 29   | 48   | 0    | 180   | 3                                           | 12   | 4    | 0    | 19    | 350                       |
| 5:00 - 5:15                                                                                                         | 10                                    | 25   | 34   | 0    | 69    | 24                                             | 95   | 6    | 0    | 125   | 130                                                                                  | 31   | 35   | 0    | 196   | 4                                           | 21   | 3    | 0    | 28    | 418                       |
| 5:15 - 5:30                                                                                                         | 7                                     | 44   | 35   | 0    | 86    | 26                                             | 63   | 3    | 0    | 92    | 115                                                                                  | 45   | 50   | 0    | 210   | 4                                           | 15   | 1    | 0    | 20    | 408                       |
| 5:30 - 5:45                                                                                                         | 11                                    | 40   | 33   | 0    | 84    | 24                                             | 69   | 5    | 0    | 98    | 150                                                                                  | 37   | 32   | 0    | 219   | 5                                           | 17   | 2    | 0    | 24    | 425                       |
| 5:45 - 6:00                                                                                                         | 10                                    | 33   | 23   | 0    | 66    | 23                                             | 55   | 4    | 1    | 83    | 114                                                                                  | 33   | 46   | 0    | 193   | 4                                           | 12   | 5    | 0    | 21    | 363                       |
| 2 Hr Totals                                                                                                         | 60                                    | 304  | 305  | 0    | 669   | 198                                            | 512  | 23   | 1    | 734   | 919                                                                                  | 272  | 310  | 0    | 1501  | 28                                          | 120  | 24   | 0    | 172   | 3076                      |
| 1 Hr Totals                                                                                                         |                                       |      |      |      |       |                                                |      |      |      |       |                                                                                      |      |      |      |       |                                             |      |      |      |       |                           |
| 4:00 - 5:00                                                                                                         | 22                                    | 162  | 180  | 0    | 364   | 101                                            | 230  | 5    | 0    | 336   | 410                                                                                  | 126  | 147  | 0    | 683   | 11                                          | 55   | 13   | 0    | 79    | 1462                      |
| 4:15 - 5:15                                                                                                         | 27                                    | 147  | 165  | 0    | 339   | 102                                            | 269  | 9    | 0    | 380   | 430                                                                                  | 123  | 147  | 0    | 700   | 13                                          | 62   | 14   | 0    | 89    | 1508                      |
| 4:30 - 5:30                                                                                                         | 29                                    | 146  | 148  | 0    | 323   | 103                                            | 274  | 12   | 0    | 389   | 453                                                                                  | 138  | 163  | 0    | 754   | 11                                          | 67   | 10   | 0    | 88    | 1554                      |
| 4:45 - 5:45                                                                                                         | 35                                    | 142  | 136  | 0    | 313   | 95                                             | 282  | 15   | 0    | 392   | 498                                                                                  | 142  | 165  | 0    | 805   | 16                                          | 65   | 10   | 0    | 91    | 1601                      |
| 5:00 - 6:00                                                                                                         | 38                                    | 142  | 125  | 0    | 305   | 97                                             | 282  | 18   | 1    | 398   | 509                                                                                  | 146  | 163  | 0    | 818   | 17                                          | 65   | 11   | 0    | 93    | 1614                      |
| PEAK HOUR                                                                                                           |                                       |      |      |      |       |                                                |      |      |      |       |                                                                                      |      |      |      |       |                                             |      |      |      |       |                           |
| 5:00 - 6:00                                                                                                         | 38                                    | 142  | 125  | 0    | 305   | 97                                             | 282  | 18   | 1    | 398   | 509                                                                                  | 146  | 163  | 0    | 818   | 17                                          | 65   | 11   | 0    | 93    | 1614                      |

# CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Maple Lawn Boulevard - Sanner Road  
and: Johns Hopkins Road  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday

Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>Sanner Road |      |      |      |       | TRAFFIC FROM SOUTH<br>Maple Lawn Boulevard |      |      |      |       | TRAFFIC FROM EAST<br>Johns Hopkins Road |      |      |      |       | TRAFFIC FROM WEST<br>Johns Hopkins Road |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|-----------------------------------|------|------|------|-------|--------------------------------------------|------|------|------|-------|-----------------------------------------|------|------|------|-------|-----------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                             | THRU | LEFT | U-TN | TOTAL | RIGHT                                      | THRU | LEFT | U-TN | TOTAL | RIGHT                                   | THRU | LEFT | U-TN | TOTAL | RIGHT                                   | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                   |      |      |      |       |                                            |      |      |      |       |                                         |      |      |      |       |                                         |      |      |      |       |                              |
| 7:00 - 7:15 | 1                                 | 21   | 35   | 0    | 57    | 19                                         | 14   | 1    | 0    | 34    | 36                                      | 5    | 9    | 0    | 50    | 1                                       | 26   | 1    | 0    | 28    | 169                          |
| 7:15 - 7:30 | 1                                 | 27   | 30   | 0    | 58    | 24                                         | 15   | 0    | 0    | 39    | 49                                      | 8    | 20   | 0    | 77    | 5                                       | 22   | 12   | 0    | 39    | 213                          |
| 7:30 - 7:45 | 3                                 | 43   | 58   | 0    | 104   | 23                                         | 26   | 2    | 0    | 51    | 59                                      | 11   | 18   | 0    | 88    | 2                                       | 27   | 5    | 0    | 34    | 277                          |
| 7:45 - 8:00 | 1                                 | 57   | 79   | 0    | 137   | 28                                         | 24   | 1    | 0    | 53    | 52                                      | 12   | 18   | 1    | 83    | 0                                       | 32   | 6    | 0    | 38    | 311                          |
| 8:00 - 8:15 | 2                                 | 66   | 45   | 0    | 113   | 25                                         | 21   | 1    | 0    | 47    | 86                                      | 4    | 15   | 0    | 105   | 5                                       | 31   | 12   | 0    | 48    | 313                          |
| 8:15 - 8:30 | 3                                 | 49   | 63   | 0    | 115   | 33                                         | 25   | 2    | 0    | 60    | 71                                      | 15   | 26   | 0    | 112   | 5                                       | 41   | 7    | 0    | 53    | 340                          |
| 8:30 - 8:45 | 1                                 | 59   | 71   | 0    | 131   | 38                                         | 25   | 1    | 0    | 64    | 80                                      | 12   | 23   | 0    | 115   | 4                                       | 27   | 12   | 0    | 43    | 353                          |
| 8:45 - 9:00 | 2                                 | 56   | 66   | 0    | 124   | 37                                         | 24   | 0    | 0    | 61    | 83                                      | 14   | 27   | 0    | 124   | 2                                       | 42   | 8    | 0    | 52    | 361                          |
| 2 Hr Totals | 14                                | 378  | 447  | 0    | 839   | 227                                        | 174  | 8    | 0    | 409   | 516                                     | 81   | 156  | 1    | 754   | 24                                      | 248  | 63   | 0    | 335   | 2337                         |
| 1 Hr Totals |                                   |      |      |      |       |                                            |      |      |      |       |                                         |      |      |      |       |                                         |      |      |      |       |                              |
| 7:00 - 8:00 | 6                                 | 148  | 202  | 0    | 356   | 94                                         | 79   | 4    | 0    | 177   | 196                                     | 36   | 65   | 1    | 298   | 8                                       | 107  | 24   | 0    | 139   | 970                          |
| 7:15 - 8:15 | 7                                 | 193  | 212  | 0    | 412   | 100                                        | 86   | 4    | 0    | 190   | 246                                     | 35   | 71   | 1    | 353   | 12                                      | 112  | 35   | 0    | 159   | 1114                         |
| 7:30 - 8:30 | 9                                 | 215  | 245  | 0    | 469   | 109                                        | 96   | 6    | 0    | 211   | 268                                     | 42   | 77   | 1    | 388   | 12                                      | 131  | 30   | 0    | 173   | 1241                         |
| 7:45 - 8:45 | 7                                 | 231  | 258  | 0    | 496   | 124                                        | 95   | 5    | 0    | 224   | 289                                     | 43   | 82   | 1    | 415   | 14                                      | 131  | 37   | 0    | 182   | 1317                         |
| 8:00 - 9:00 | 8                                 | 230  | 245  | 0    | 483   | 133                                        | 95   | 4    | 0    | 232   | 320                                     | 45   | 91   | 0    | 456   | 16                                      | 141  | 39   | 0    | 196   | 1367                         |
| PEAK HOUR   |                                   |      |      |      |       |                                            |      |      |      |       |                                         |      |      |      |       |                                         |      |      |      |       |                              |
| 8:00 - 9:00 | 8                                 | 230  | 245  | 0    | 483   | 133                                        | 95   | 4    | 0    | 232   | 320                                     | 45   | 91   | 0    | 456   | 16                                      | 141  | 39   | 0    | 196   | 1367                         |
| PM          |                                   |      |      |      |       |                                            |      |      |      |       |                                         |      |      |      |       |                                         |      |      |      |       |                              |
| 4:00 - 4:15 | 5                                 | 39   | 49   | 0    | 93    | 22                                         | 56   | 2    | 0    | 80    | 110                                     | 34   | 35   | 0    | 179   | 2                                       | 14   | 2    | 0    | 18    | 370                          |
| 4:15 - 4:30 | 5                                 | 44   | 50   | 0    | 99    | 23                                         | 57   | 0    | 0    | 80    | 91                                      | 30   | 33   | 0    | 154   | 5                                       | 10   | 5    | 0    | 20    | 353                          |
| 4:30 - 4:45 | 5                                 | 44   | 45   | 0    | 94    | 29                                         | 60   | 2    | 0    | 91    | 105                                     | 33   | 29   | 0    | 167   | 0                                       | 19   | 2    | 0    | 21    | 373                          |
| 4:45 - 5:00 | 7                                 | 33   | 34   | 0    | 74    | 21                                         | 55   | 1    | 0    | 77    | 103                                     | 29   | 47   | 0    | 179   | 3                                       | 12   | 4    | 0    | 19    | 349                          |
| 5:00 - 5:15 | 10                                | 25   | 34   | 0    | 69    | 22                                         | 92   | 6    | 0    | 120   | 130                                     | 31   | 35   | 0    | 196   | 4                                       | 21   | 3    | 0    | 28    | 413                          |
| 5:15 - 5:30 | 7                                 | 44   | 33   | 0    | 84    | 26                                         | 62   | 3    | 0    | 91    | 115                                     | 45   | 50   | 0    | 210   | 4                                       | 15   | 1    | 0    | 20    | 405                          |
| 5:30 - 5:45 | 11                                | 40   | 33   | 0    | 84    | 24                                         | 69   | 5    | 0    | 98    | 149                                     | 37   | 32   | 0    | 218   | 5                                       | 17   | 2    | 0    | 24    | 424                          |
| 5:45 - 6:00 | 10                                | 32   | 23   | 0    | 65    | 23                                         | 55   | 4    | 1    | 83    | 114                                     | 33   | 46   | 0    | 193   | 4                                       | 12   | 5    | 0    | 21    | 362                          |
| 2 Hr Totals | 60                                | 301  | 301  | 0    | 662   | 190                                        | 506  | 23   | 1    | 720   | 917                                     | 272  | 307  | 0    | 1496  | 27                                      | 120  | 24   | 0    | 171   | 3049                         |
| 1 Hr Totals |                                   |      |      |      |       |                                            |      |      |      |       |                                         |      |      |      |       |                                         |      |      |      |       |                              |
| 4:00 - 5:00 | 22                                | 160  | 178  | 0    | 360   | 95                                         | 228  | 5    | 0    | 328   | 409                                     | 126  | 144  | 0    | 679   | 10                                      | 55   | 13   | 0    | 78    | 1445                         |
| 4:15 - 5:15 | 27                                | 146  | 163  | 0    | 336   | 95                                         | 264  | 9    | 0    | 368   | 429                                     | 123  | 144  | 0    | 696   | 12                                      | 62   | 14   | 0    | 88    | 1488                         |
| 4:30 - 5:30 | 29                                | 146  | 146  | 0    | 321   | 98                                         | 269  | 12   | 0    | 379   | 453                                     | 138  | 161  | 0    | 752   | 11                                      | 67   | 10   | 0    | 88    | 1540                         |
| 4:45 - 5:45 | 35                                | 142  | 134  | 0    | 311   | 93                                         | 278  | 15   | 0    | 386   | 497                                     | 142  | 164  | 0    | 803   | 16                                      | 65   | 10   | 0    | 91    | 1591                         |
| 5:00 - 6:00 | 38                                | 141  | 123  | 0    | 302   | 95                                         | 278  | 18   | 1    | 392   | 508                                     | 146  | 163  | 0    | 817   | 17                                      | 65   | 11   | 0    | 93    | 1604                         |
| PEAK HOUR   |                                   |      |      |      |       |                                            |      |      |      |       |                                         |      |      |      |       |                                         |      |      |      |       |                              |
| 5:00 - 6:00 | 38                                | 141  | 123  | 0    | 302   | 95                                         | 278  | 18   | 1    | 392   | 508                                     | 146  | 163  | 0    | 817   | 17                                      | 65   | 11   | 0    | 93    | 1604                         |



# PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: Maple Lawn Boulevard - Sanner Road  
 and: Johns Hopkins Road  
 Location: Howard County, Maryland

Counted by: VCU  
 Date: November 19, 2025  
 Weather: Cold/Cloudy  
 Entered by: CP

Wednesday  
 Star Rating: 4



| TIME          | NORTH LEG<br>Sanner Road |          | SOUTH LEG<br>Maple Lawn Boulevard |          |
|---------------|--------------------------|----------|-----------------------------------|----------|
|               | Pedestrians              | Bicycles | Pedestrians                       | Bicycles |
| <b>AM</b>     |                          |          |                                   |          |
| 7:00 - 7:15   | 0                        | 0        | 0                                 | 0        |
| 7:15 - 7:30   | 0                        | 0        | 1                                 | 0        |
| 7:30 - 7:45   | 0                        | 0        | 0                                 | 0        |
| 7:45 - 8:00   | 0                        | 0        | 0                                 | 0        |
| 8:00 - 8:15   | 0                        | 0        | 0                                 | 0        |
| 8:15 - 8:30   | 0                        | 0        | 0                                 | 0        |
| 8:30 - 8:45   | 0                        | 0        | 0                                 | 0        |
| 8:45 - 9:00   | 1                        | 0        | 0                                 | 0        |
| <b>TOTALS</b> | <b>1</b>                 | <b>0</b> | <b>1</b>                          | <b>0</b> |
| <b>PM</b>     |                          |          |                                   |          |
| 4:00 - 4:15   | 0                        | 0        | 0                                 | 0        |
| 4:15 - 4:30   | 0                        | 0        | 0                                 | 0        |
| 4:30 - 4:45   | 0                        | 0        | 0                                 | 0        |
| 4:45 - 5:00   | 0                        | 0        | 0                                 | 0        |
| 5:00 - 5:15   | 0                        | 0        | 0                                 | 0        |
| 5:15 - 5:30   | 0                        | 0        | 0                                 | 0        |
| 5:30 - 5:45   | 0                        | 0        | 2                                 | 0        |
| 5:45 - 6:00   | 0                        | 0        | 0                                 | 0        |
| <b>TOTALS</b> | <b>0</b>                 | <b>0</b> | <b>2</b>                          | <b>0</b> |

|               | EAST LEG<br>Johns Hopkins Road |          | WEST LEG<br>Johns Hopkins Road |          |
|---------------|--------------------------------|----------|--------------------------------|----------|
|               | Pedestrians                    | Bicycles | Pedestrians                    | Bicycles |
| <b>AM</b>     |                                |          |                                |          |
| 7:00 - 7:15   | 0                              | 0        | 0                              | 0        |
| 7:15 - 7:30   | 0                              | 0        | 0                              | 0        |
| 7:30 - 7:45   | 0                              | 0        | 0                              | 0        |
| 7:45 - 8:00   | 0                              | 0        | 0                              | 0        |
| 8:00 - 8:15   | 0                              | 0        | 0                              | 0        |
| 8:15 - 8:30   | 0                              | 0        | 0                              | 0        |
| 8:30 - 8:45   | 0                              | 0        | 0                              | 0        |
| 8:45 - 9:00   | 0                              | 0        | 1                              | 0        |
| <b>TOTALS</b> | <b>0</b>                       | <b>0</b> | <b>1</b>                       | <b>0</b> |
| <b>PM</b>     |                                |          |                                |          |
| 4:00 - 4:15   | 0                              | 0        | 0                              | 0        |
| 4:15 - 4:30   | 0                              | 0        | 0                              | 0        |
| 4:30 - 4:45   | 0                              | 0        | 0                              | 0        |
| 4:45 - 5:00   | 0                              | 0        | 0                              | 0        |
| 5:00 - 5:15   | 0                              | 0        | 0                              | 0        |
| 5:15 - 5:30   | 0                              | 0        | 0                              | 0        |
| 5:30 - 5:45   | 0                              | 0        | 0                              | 0        |
| 5:45 - 6:00   | 0                              | 0        | 0                              | 0        |
| <b>TOTALS</b> | <b>0</b>                       | <b>0</b> | <b>0</b>                       | <b>0</b> |



# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Maple Lawn Boulevard  
and: Iager Boulevard  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: Maple Lawn Boulevard |      |      |      |       | TRAFFIC FROM SOUTH<br>on: Maple Lawn Boulevard |      |      |      |       | TRAFFIC FROM EAST<br>on: |      |      |      |       | TRAFFIC FROM WEST<br>on: Iager Boulevard |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|------------------------------------------------|------|------|------|-------|------------------------------------------------|------|------|------|-------|--------------------------|------|------|------|-------|------------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                          | THRU | LEFT | U-TN | TOTAL | RIGHT                                          | THRU | LEFT | U-TN | TOTAL | RIGHT                    | THRU | LEFT | U-TN | TOTAL | RIGHT                                    | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 7:00 - 7:15 | 4                                              | 30   | 0    | 0    | 34    | 0                                              | 17   | 6    | 0    | 23    | 0                        | 0    | 0    | 0    | 0     | 13                                       | 0    | 13   | 0    | 26    | 83                           |
| 7:15 - 7:30 | 5                                              | 44   | 0    | 2    | 51    | 0                                              | 17   | 6    | 0    | 23    | 0                        | 0    | 0    | 0    | 0     | 23                                       | 0    | 19   | 0    | 42    | 116                          |
| 7:30 - 7:45 | 3                                              | 63   | 0    | 0    | 66    | 0                                              | 35   | 13   | 1    | 49    | 0                        | 0    | 0    | 0    | 0     | 55                                       | 0    | 29   | 0    | 84    | 199                          |
| 7:45 - 8:00 | 8                                              | 53   | 0    | 1    | 62    | 0                                              | 26   | 23   | 0    | 49    | 0                        | 0    | 0    | 0    | 0     | 19                                       | 0    | 19   | 0    | 38    | 149                          |
| 8:00 - 8:15 | 6                                              | 74   | 0    | 1    | 81    | 0                                              | 33   | 10   | 1    | 44    | 0                        | 0    | 0    | 0    | 0     | 37                                       | 0    | 19   | 0    | 56    | 181                          |
| 8:15 - 8:30 | 12                                             | 69   | 0    | 0    | 81    | 0                                              | 38   | 28   | 3    | 69    | 0                        | 0    | 0    | 0    | 0     | 41                                       | 0    | 25   | 0    | 66    | 216                          |
| 8:30 - 8:45 | 14                                             | 68   | 0    | 0    | 82    | 0                                              | 35   | 17   | 0    | 52    | 0                        | 0    | 0    | 0    | 0     | 21                                       | 0    | 26   | 0    | 47    | 181                          |
| 8:45 - 9:00 | 7                                              | 76   | 0    | 1    | 84    | 0                                              | 41   | 11   | 0    | 52    | 0                        | 0    | 0    | 0    | 0     | 30                                       | 0    | 20   | 0    | 50    | 186                          |
| 2 Hr Totals | 59                                             | 477  | 0    | 5    | 541   | 0                                              | 242  | 114  | 5    | 361   | 0                        | 0    | 0    | 0    | 0     | 239                                      | 0    | 170  | 0    | 409   | 1311                         |
| 1 Hr Totals |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 7:00 - 8:00 | 20                                             | 190  | 0    | 3    | 213   | 0                                              | 95   | 48   | 1    | 144   | 0                        | 0    | 0    | 0    | 0     | 110                                      | 0    | 80   | 0    | 190   | 547                          |
| 7:15 - 8:15 | 22                                             | 234  | 0    | 4    | 260   | 0                                              | 111  | 52   | 2    | 165   | 0                        | 0    | 0    | 0    | 0     | 134                                      | 0    | 86   | 0    | 220   | 645                          |
| 7:30 - 8:30 | 29                                             | 259  | 0    | 2    | 290   | 0                                              | 132  | 74   | 5    | 211   | 0                        | 0    | 0    | 0    | 0     | 152                                      | 0    | 92   | 0    | 244   | 745                          |
| 7:45 - 8:45 | 40                                             | 264  | 0    | 2    | 306   | 0                                              | 132  | 78   | 4    | 214   | 0                        | 0    | 0    | 0    | 0     | 118                                      | 0    | 89   | 0    | 207   | 727                          |
| 8:00 - 9:00 | 39                                             | 287  | 0    | 2    | 328   | 0                                              | 147  | 66   | 4    | 217   | 0                        | 0    | 0    | 0    | 0     | 129                                      | 0    | 90   | 0    | 219   | 764                          |
| PEAK HOUR   |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 8:00 - 9:00 | 39                                             | 287  | 0    | 2    | 328   | 0                                              | 147  | 66   | 4    | 217   | 0                        | 0    | 0    | 0    | 0     | 129                                      | 0    | 90   | 0    | 219   | 764                          |
| PM          |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 4:00 - 4:15 | 15                                             | 61   | 0    | 1    | 77    | 0                                              | 69   | 38   | 0    | 107   | 0                        | 0    | 0    | 0    | 0     | 15                                       | 0    | 10   | 0    | 25    | 209                          |
| 4:15 - 4:30 | 23                                             | 55   | 0    | 0    | 78    | 0                                              | 54   | 25   | 1    | 80    | 0                        | 0    | 0    | 0    | 0     | 20                                       | 0    | 15   | 0    | 35    | 193                          |
| 4:30 - 4:45 | 23                                             | 51   | 0    | 1    | 75    | 0                                              | 79   | 32   | 2    | 113   | 0                        | 0    | 0    | 0    | 0     | 12                                       | 0    | 22   | 0    | 34    | 222                          |
| 4:45 - 5:00 | 18                                             | 58   | 0    | 1    | 77    | 0                                              | 64   | 22   | 0    | 86    | 0                        | 0    | 0    | 0    | 0     | 27                                       | 0    | 17   | 0    | 44    | 207                          |
| 5:00 - 5:15 | 11                                             | 54   | 0    | 0    | 65    | 0                                              | 118  | 24   | 4    | 146   | 0                        | 0    | 0    | 0    | 0     | 11                                       | 0    | 19   | 0    | 30    | 241                          |
| 5:15 - 5:30 | 20                                             | 73   | 0    | 0    | 93    | 0                                              | 60   | 19   | 4    | 83    | 0                        | 0    | 0    | 0    | 0     | 27                                       | 0    | 14   | 0    | 41    | 217                          |
| 5:30 - 5:45 | 12                                             | 52   | 0    | 2    | 66    | 0                                              | 69   | 38   | 3    | 110   | 0                        | 0    | 0    | 0    | 0     | 18                                       | 0    | 19   | 0    | 37    | 213                          |
| 5:45 - 6:00 | 24                                             | 53   | 0    | 0    | 77    | 0                                              | 54   | 27   | 2    | 83    | 0                        | 0    | 0    | 0    | 0     | 15                                       | 0    | 18   | 0    | 33    | 193                          |
| 2 Hr Totals | 146                                            | 457  | 0    | 5    | 608   | 0                                              | 567  | 225  | 16   | 808   | 0                        | 0    | 0    | 0    | 0     | 145                                      | 0    | 134  | 0    | 279   | 1695                         |
| 1 Hr Totals |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 4:00 - 5:00 | 79                                             | 225  | 0    | 3    | 307   | 0                                              | 266  | 117  | 3    | 386   | 0                        | 0    | 0    | 0    | 0     | 74                                       | 0    | 64   | 0    | 138   | 831                          |
| 4:15 - 5:15 | 75                                             | 218  | 0    | 2    | 295   | 0                                              | 315  | 103  | 7    | 425   | 0                        | 0    | 0    | 0    | 0     | 70                                       | 0    | 73   | 0    | 143   | 863                          |
| 4:30 - 5:30 | 72                                             | 236  | 0    | 2    | 310   | 0                                              | 321  | 97   | 10   | 428   | 0                        | 0    | 0    | 0    | 0     | 77                                       | 0    | 72   | 0    | 149   | 887                          |
| 4:45 - 5:45 | 61                                             | 237  | 0    | 3    | 301   | 0                                              | 311  | 103  | 11   | 425   | 0                        | 0    | 0    | 0    | 0     | 83                                       | 0    | 69   | 0    | 152   | 878                          |
| 5:00 - 6:00 | 67                                             | 232  | 0    | 2    | 301   | 0                                              | 301  | 108  | 13   | 422   | 0                        | 0    | 0    | 0    | 0     | 71                                       | 0    | 70   | 0    | 141   | 864                          |
| PEAK HOUR   |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 4:30 - 5:30 | 72                                             | 236  | 0    | 2    | 310   | 0                                              | 321  | 97   | 10   | 428   | 0                        | 0    | 0    | 0    | 0     | 77                                       | 0    | 72   | 0    | 149   | 887                          |

# CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Maple Lawn Boulevard  
and: Iager Boulevard  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: Maple Lawn Boulevard |      |      |      |       | TRAFFIC FROM SOUTH<br>on: Maple Lawn Boulevard |      |      |      |       | TRAFFIC FROM EAST<br>on: |      |      |      |       | TRAFFIC FROM WEST<br>on: Iager Boulevard |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|------------------------------------------------|------|------|------|-------|------------------------------------------------|------|------|------|-------|--------------------------|------|------|------|-------|------------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                          | THRU | LEFT | U-TN | TOTAL | RIGHT                                          | THRU | LEFT | U-TN | TOTAL | RIGHT                    | THRU | LEFT | U-TN | TOTAL | RIGHT                                    | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 7:00 - 7:15 | 4                                              | 30   | 0    | 0    | 34    | 0                                              | 15   | 6    | 0    | 21    | 0                        | 0    | 0    | 0    | 0     | 13                                       | 0    | 13   | 0    | 26    | 81                           |
| 7:15 - 7:30 | 5                                              | 40   | 0    | 2    | 47    | 0                                              | 16   | 6    | 0    | 22    | 0                        | 0    | 0    | 0    | 0     | 23                                       | 0    | 19   | 0    | 42    | 111                          |
| 7:30 - 7:45 | 2                                              | 61   | 0    | 0    | 63    | 0                                              | 35   | 13   | 1    | 49    | 0                        | 0    | 0    | 0    | 0     | 55                                       | 0    | 29   | 0    | 84    | 196                          |
| 7:45 - 8:00 | 8                                              | 51   | 0    | 1    | 60    | 0                                              | 26   | 23   | 0    | 49    | 0                        | 0    | 0    | 0    | 0     | 18                                       | 0    | 19   | 0    | 37    | 146                          |
| 8:00 - 8:15 | 6                                              | 74   | 0    | 1    | 81    | 0                                              | 32   | 10   | 1    | 43    | 0                        | 0    | 0    | 0    | 0     | 36                                       | 0    | 19   | 0    | 55    | 179                          |
| 8:15 - 8:30 | 11                                             | 67   | 0    | 0    | 78    | 0                                              | 38   | 28   | 3    | 69    | 0                        | 0    | 0    | 0    | 0     | 41                                       | 0    | 25   | 0    | 66    | 213                          |
| 8:30 - 8:45 | 14                                             | 63   | 0    | 0    | 77    | 0                                              | 33   | 17   | 0    | 50    | 0                        | 0    | 0    | 0    | 0     | 21                                       | 0    | 26   | 0    | 47    | 174                          |
| 8:45 - 9:00 | 6                                              | 75   | 0    | 0    | 81    | 0                                              | 39   | 11   | 0    | 50    | 0                        | 0    | 0    | 0    | 0     | 30                                       | 0    | 20   | 0    | 50    | 181                          |
| 2 Hr Totals | 56                                             | 461  | 0    | 4    | 521   | 0                                              | 234  | 114  | 5    | 353   | 0                        | 0    | 0    | 0    | 0     | 237                                      | 0    | 170  | 0    | 407   | 1281                         |
| 1 Hr Totals |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 7:00 - 8:00 | 19                                             | 182  | 0    | 3    | 204   | 0                                              | 92   | 48   | 1    | 141   | 0                        | 0    | 0    | 0    | 0     | 109                                      | 0    | 80   | 0    | 189   | 534                          |
| 7:15 - 8:15 | 21                                             | 226  | 0    | 4    | 251   | 0                                              | 109  | 52   | 2    | 163   | 0                        | 0    | 0    | 0    | 0     | 132                                      | 0    | 86   | 0    | 218   | 632                          |
| 7:30 - 8:30 | 27                                             | 253  | 0    | 2    | 282   | 0                                              | 131  | 74   | 5    | 210   | 0                        | 0    | 0    | 0    | 0     | 150                                      | 0    | 92   | 0    | 242   | 734                          |
| 7:45 - 8:45 | 39                                             | 255  | 0    | 2    | 296   | 0                                              | 129  | 78   | 4    | 211   | 0                        | 0    | 0    | 0    | 0     | 116                                      | 0    | 89   | 0    | 205   | 712                          |
| 8:00 - 9:00 | 37                                             | 279  | 0    | 1    | 317   | 0                                              | 142  | 66   | 4    | 212   | 0                        | 0    | 0    | 0    | 0     | 128                                      | 0    | 90   | 0    | 218   | 747                          |
| PEAK HOUR   |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 8:00 - 9:00 | 37                                             | 279  | 0    | 1    | 317   | 0                                              | 142  | 66   | 4    | 212   | 0                        | 0    | 0    | 0    | 0     | 128                                      | 0    | 90   | 0    | 218   | 747                          |
| PM          |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 4:00 - 4:15 | 15                                             | 59   | 0    | 1    | 75    | 0                                              | 67   | 38   | 0    | 105   | 0                        | 0    | 0    | 0    | 0     | 15                                       | 0    | 10   | 0    | 25    | 205                          |
| 4:15 - 4:30 | 22                                             | 53   | 0    | 0    | 75    | 0                                              | 53   | 25   | 1    | 79    | 0                        | 0    | 0    | 0    | 0     | 20                                       | 0    | 15   | 0    | 35    | 189                          |
| 4:30 - 4:45 | 23                                             | 50   | 0    | 1    | 74    | 0                                              | 78   | 32   | 2    | 112   | 0                        | 0    | 0    | 0    | 0     | 12                                       | 0    | 21   | 0    | 33    | 219                          |
| 4:45 - 5:00 | 18                                             | 57   | 0    | 1    | 76    | 0                                              | 63   | 22   | 0    | 85    | 0                        | 0    | 0    | 0    | 0     | 27                                       | 0    | 17   | 0    | 44    | 205                          |
| 5:00 - 5:15 | 11                                             | 54   | 0    | 0    | 65    | 0                                              | 113  | 24   | 4    | 141   | 0                        | 0    | 0    | 0    | 0     | 11                                       | 0    | 19   | 0    | 30    | 236                          |
| 5:15 - 5:30 | 20                                             | 73   | 0    | 0    | 93    | 0                                              | 60   | 19   | 4    | 83    | 0                        | 0    | 0    | 0    | 0     | 27                                       | 0    | 14   | 0    | 41    | 217                          |
| 5:30 - 5:45 | 12                                             | 52   | 0    | 2    | 66    | 0                                              | 69   | 38   | 3    | 110   | 0                        | 0    | 0    | 0    | 0     | 18                                       | 0    | 19   | 0    | 37    | 213                          |
| 5:45 - 6:00 | 24                                             | 52   | 0    | 0    | 76    | 0                                              | 54   | 27   | 2    | 83    | 0                        | 0    | 0    | 0    | 0     | 15                                       | 0    | 17   | 0    | 32    | 191                          |
| 2 Hr Totals | 145                                            | 450  | 0    | 5    | 600   | 0                                              | 557  | 225  | 16   | 798   | 0                        | 0    | 0    | 0    | 0     | 145                                      | 0    | 132  | 0    | 277   | 1675                         |
| 1 Hr Totals |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 4:00 - 5:00 | 78                                             | 219  | 0    | 3    | 300   | 0                                              | 261  | 117  | 3    | 381   | 0                        | 0    | 0    | 0    | 0     | 74                                       | 0    | 63   | 0    | 137   | 818                          |
| 4:15 - 5:15 | 74                                             | 214  | 0    | 2    | 290   | 0                                              | 307  | 103  | 7    | 417   | 0                        | 0    | 0    | 0    | 0     | 70                                       | 0    | 72   | 0    | 142   | 849                          |
| 4:30 - 5:30 | 72                                             | 234  | 0    | 2    | 308   | 0                                              | 314  | 97   | 10   | 421   | 0                        | 0    | 0    | 0    | 0     | 77                                       | 0    | 71   | 0    | 148   | 877                          |
| 4:45 - 5:45 | 61                                             | 236  | 0    | 3    | 300   | 0                                              | 305  | 103  | 11   | 419   | 0                        | 0    | 0    | 0    | 0     | 83                                       | 0    | 69   | 0    | 152   | 871                          |
| 5:00 - 6:00 | 67                                             | 231  | 0    | 2    | 300   | 0                                              | 296  | 108  | 13   | 417   | 0                        | 0    | 0    | 0    | 0     | 71                                       | 0    | 69   | 0    | 140   | 857                          |
| PEAK HOUR   |                                                |      |      |      |       |                                                |      |      |      |       |                          |      |      |      |       |                                          |      |      |      |       |                              |
| 4:30 - 5:30 | 72                                             | 234  | 0    | 2    | 308   | 0                                              | 314  | 97   | 10   | 421   | 0                        | 0    | 0    | 0    | 0     | 77                                       | 0    | 71   | 0    | 148   | 877                          |



# PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: Maple Lawn Boulevard  
 and: Iager Boulevard  
 Location: Howard County, Maryland

Counted by: VCU  
 Date: November 19, 2025  
 Weather: Cold/Cloudy  
 Entered by: CP

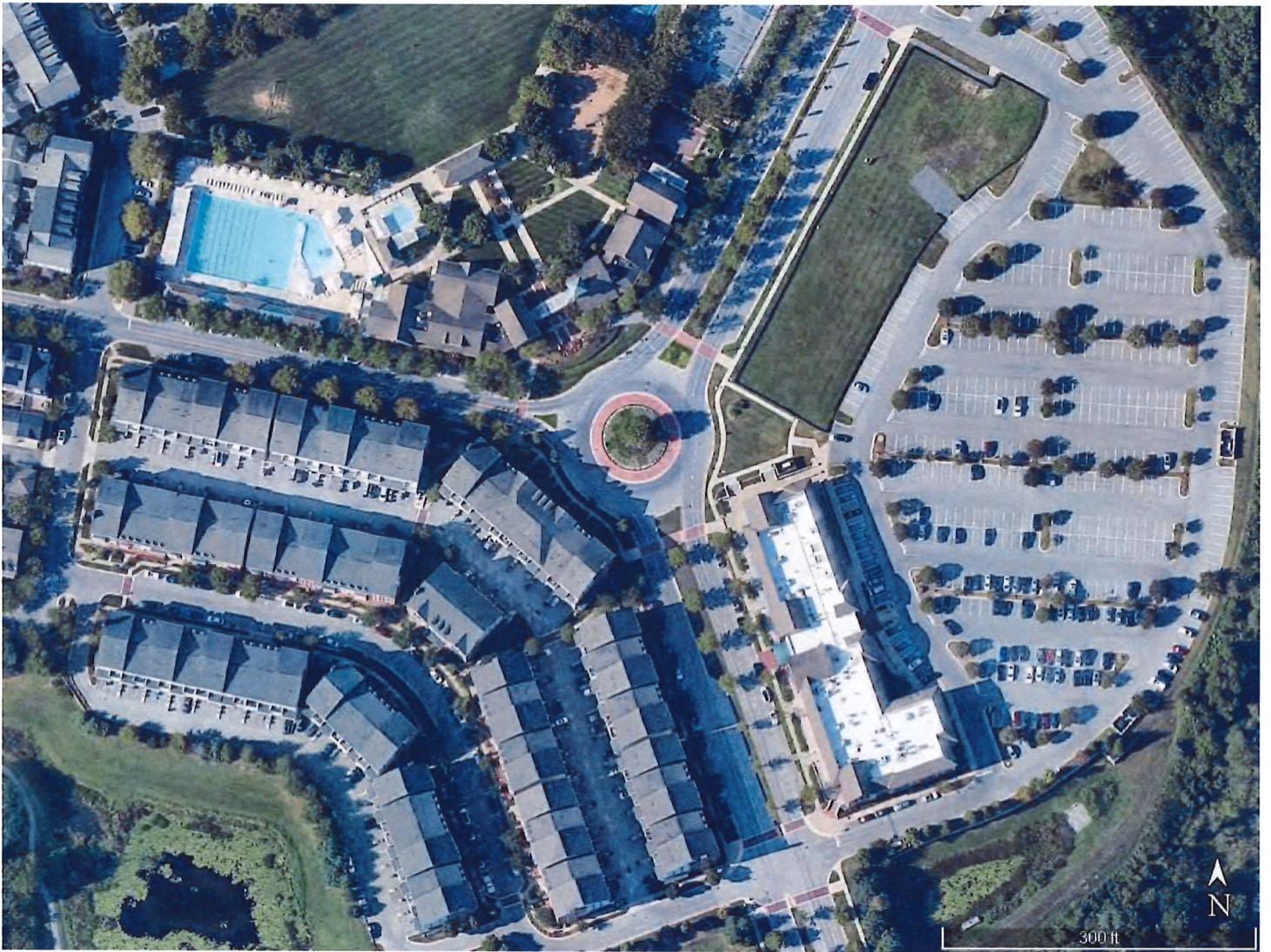
Wednesday  
 Star Rating: 4



| TIME          | NORTH LEG<br>Maple Lawn Boulevard |          | SOUTH LEG<br>Maple Lawn Boulevard |          |
|---------------|-----------------------------------|----------|-----------------------------------|----------|
|               | Pedestrians                       | Bicycles | Pedestrians                       | Bicycles |
| <b>AM</b>     |                                   |          |                                   |          |
| 7:00 - 7:15   | 0                                 | 1        | 0                                 | 0        |
| 7:15 - 7:30   | 0                                 | 0        | 0                                 | 0        |
| 7:30 - 7:45   | 0                                 | 0        | 0                                 | 0        |
| 7:45 - 8:00   | 2                                 | 0        | 0                                 | 0        |
| 8:00 - 8:15   | 1                                 | 0        | 0                                 | 0        |
| 8:15 - 8:30   | 2                                 | 0        | 0                                 | 0        |
| 8:30 - 8:45   | 3                                 | 0        | 0                                 | 0        |
| 8:45 - 9:00   | 1                                 | 0        | 0                                 | 0        |
| <b>TOTALS</b> | <b>9</b>                          | <b>1</b> | <b>0</b>                          | <b>0</b> |
| <b>PM</b>     |                                   |          |                                   |          |
| 4:00 - 4:15   | 0                                 | 0        | 1                                 | 0        |
| 4:15 - 4:30   | 0                                 | 0        | 1                                 | 0        |
| 4:30 - 4:45   | 0                                 | 0        | 1                                 | 0        |
| 4:45 - 5:00   | 0                                 | 0        | 1                                 | 0        |
| 5:00 - 5:15   | 0                                 | 0        | 0                                 | 0        |
| 5:15 - 5:30   | 0                                 | 0        | 0                                 | 0        |
| 5:30 - 5:45   | 0                                 | 0        | 2                                 | 0        |
| 5:45 - 6:00   | 1                                 | 0        | 0                                 | 0        |
| <b>TOTALS</b> | <b>1</b>                          | <b>0</b> | <b>6</b>                          | <b>0</b> |

|               | EAST LEG    |          | WEST LEG<br>Iager Boulevard |          |
|---------------|-------------|----------|-----------------------------|----------|
|               | Pedestrians | Bicycles | Pedestrians                 | Bicycles |
| <b>AM</b>     |             |          |                             |          |
| 7:00 - 7:15   |             |          | 0                           | 0        |
| 7:15 - 7:30   |             |          | 0                           | 0        |
| 7:30 - 7:45   |             |          | 0                           | 0        |
| 7:45 - 8:00   |             |          | 0                           | 0        |
| 8:00 - 8:15   |             |          | 0                           | 0        |
| 8:15 - 8:30   |             |          | 0                           | 0        |
| 8:30 - 8:45   |             |          | 0                           | 0        |
| 8:45 - 9:00   |             |          | 0                           | 0        |
| <b>TOTALS</b> | <b>0</b>    | <b>0</b> | <b>0</b>                    | <b>0</b> |
| <b>PM</b>     |             |          |                             |          |
| 4:00 - 4:15   |             |          | 0                           | 0        |
| 4:15 - 4:30   |             |          | 1                           | 0        |
| 4:30 - 4:45   |             |          | 1                           | 0        |
| 4:45 - 5:00   |             |          | 0                           | 0        |
| 5:00 - 5:15   |             |          | 0                           | 0        |
| 5:15 - 5:30   |             |          | 0                           | 0        |
| 5:30 - 5:45   |             |          | 0                           | 0        |
| 5:45 - 6:00   |             |          | 0                           | 0        |
| <b>TOTALS</b> | <b>0</b>    | <b>0</b> | <b>2</b>                    | <b>0</b> |



# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 216  
and: Lime Kiln Rd  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: MD 216 |      |      |      |       | TRAFFIC FROM SOUTH<br>on: MD 216 |      |      |      |       | TRAFFIC FROM EAST<br>on: |      |      |      |       | TRAFFIC FROM WEST<br>on: Lime Kiln Rd |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|----------------------------------|------|------|------|-------|----------------------------------|------|------|------|-------|--------------------------|------|------|------|-------|---------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                            | THRU | LEFT | U-TN | TOTAL | RIGHT                            | THRU | LEFT | U-TN | TOTAL | RIGHT                    | THRU | LEFT | U-TN | TOTAL | RIGHT                                 | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 7:00 - 7:15 | 2                                | 52   |      | 0    | 54    |                                  | 29   | 17   | 0    | 46    |                          |      |      |      | 0     | 29                                    |      | 1    | 0    | 30    | 130                          |
| 7:15 - 7:30 | 4                                | 85   |      | 0    | 89    |                                  | 41   | 21   | 0    | 62    |                          |      |      |      | 0     | 38                                    |      | 5    | 0    | 43    | 194                          |
| 7:30 - 7:45 | 4                                | 124  |      | 0    | 128   |                                  | 41   | 21   | 0    | 62    |                          |      |      |      | 0     | 61                                    |      | 3    | 0    | 64    | 254                          |
| 7:45 - 8:00 | 3                                | 100  |      | 0    | 103   |                                  | 67   | 33   | 0    | 100   |                          |      |      |      | 0     | 45                                    |      | 6    | 0    | 51    | 254                          |
| 8:00 - 8:15 | 4                                | 129  |      | 0    | 133   |                                  | 43   | 10   | 0    | 53    |                          |      |      |      | 0     | 52                                    |      | 7    | 0    | 59    | 245                          |
| 8:15 - 8:30 | 5                                | 146  |      | 0    | 151   |                                  | 66   | 21   | 0    | 87    |                          |      |      |      | 0     | 34                                    |      | 7    | 0    | 41    | 279                          |
| 8:30 - 8:45 | 3                                | 121  |      | 0    | 124   |                                  | 63   | 20   | 0    | 83    |                          |      |      |      | 0     | 43                                    |      | 6    | 0    | 49    | 256                          |
| 8:45 - 9:00 | 8                                | 128  |      | 0    | 136   |                                  | 52   | 18   | 0    | 70    |                          |      |      |      | 0     | 30                                    |      | 5    | 0    | 35    | 241                          |
| 2 Hr Totals | 33                               | 885  | 0    | 0    | 918   | 0                                | 402  | 161  | 0    | 563   |                          |      |      |      | 0     | 332                                   | 0    | 40   | 0    | 372   | 1853                         |
| 1 Hr Totals |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 7:00 - 8:00 | 13                               | 361  | 0    | 0    | 374   | 0                                | 178  | 92   | 0    | 270   | 0                        | 0    | 0    | 0    | 0     | 173                                   | 0    | 15   | 0    | 188   | 832                          |
| 7:15 - 8:15 | 15                               | 438  | 0    | 0    | 453   | 0                                | 192  | 85   | 0    | 277   | 0                        | 0    | 0    | 0    | 0     | 196                                   | 0    | 21   | 0    | 217   | 947                          |
| 7:30 - 8:30 | 16                               | 499  | 0    | 0    | 515   | 0                                | 217  | 85   | 0    | 302   | 0                        | 0    | 0    | 0    | 0     | 192                                   | 0    | 23   | 0    | 215   | 1032                         |
| 7:45 - 8:45 | 15                               | 496  | 0    | 0    | 511   | 0                                | 239  | 84   | 0    | 323   | 0                        | 0    | 0    | 0    | 0     | 174                                   | 0    | 26   | 0    | 200   | 1034                         |
| 8:00 - 9:00 | 20                               | 524  | 0    | 0    | 544   | 0                                | 224  | 69   | 0    | 293   | 0                        | 0    | 0    | 0    | 0     | 159                                   | 0    | 25   | 0    | 184   | 1021                         |
| PEAK HOUR   |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 7:45 - 8:45 | 15                               | 496  | 0    | 0    | 511   | 0                                | 239  | 84   | 0    | 323   | 0                        | 0    | 0    | 0    | 0     | 174                                   | 0    | 26   | 0    | 200   | 1034                         |
| PM          |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 4:00 - 4:15 | 7                                | 57   |      | 0    | 64    |                                  | 116  | 54   | 0    | 170   |                          |      |      |      | 0     | 31                                    |      | 3    | 0    | 34    | 268                          |
| 4:15 - 4:30 | 7                                | 74   |      | 0    | 81    |                                  | 137  | 49   | 0    | 186   |                          |      |      |      | 0     | 42                                    |      | 3    | 0    | 45    | 312                          |
| 4:30 - 4:45 | 3                                | 73   |      | 0    | 76    |                                  | 129  | 44   | 0    | 173   |                          |      |      |      | 0     | 37                                    |      | 3    | 0    | 40    | 289                          |
| 4:45 - 5:00 | 6                                | 69   |      | 0    | 75    |                                  | 103  | 45   | 0    | 148   |                          |      |      |      | 0     | 43                                    |      | 1    | 0    | 44    | 267                          |
| 5:00 - 5:15 | 2                                | 72   |      | 0    | 74    |                                  | 109  | 41   | 0    | 150   |                          |      |      |      | 0     | 37                                    |      | 5    | 0    | 42    | 266                          |
| 5:15 - 5:30 | 4                                | 88   |      | 0    | 92    |                                  | 119  | 48   | 0    | 167   |                          |      |      |      | 0     | 33                                    |      | 6    | 0    | 39    | 298                          |
| 5:30 - 5:45 | 1                                | 76   |      | 0    | 77    |                                  | 127  | 47   | 0    | 174   |                          |      |      |      | 0     | 33                                    |      | 5    | 0    | 38    | 289                          |
| 5:45 - 6:00 | 3                                | 76   |      | 0    | 79    |                                  | 104  | 46   | 0    | 150   |                          |      |      |      | 0     | 28                                    |      | 3    | 0    | 31    | 260                          |
| 2 Hr Totals | 33                               | 585  | 0    | 0    | 618   | 0                                | 944  | 374  | 0    | 1318  | 0                        | 0    | 0    | 0    | 0     | 284                                   | 0    | 29   | 0    | 313   | 2249                         |
| 1 Hr Totals |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 4:00 - 5:00 | 23                               | 273  | 0    | 0    | 296   | 0                                | 485  | 192  | 0    | 677   | 0                        | 0    | 0    | 0    | 0     | 153                                   | 0    | 10   | 0    | 163   | 1136                         |
| 4:15 - 5:15 | 18                               | 288  | 0    | 0    | 306   | 0                                | 478  | 179  | 0    | 657   | 0                        | 0    | 0    | 0    | 0     | 159                                   | 0    | 12   | 0    | 171   | 1134                         |
| 4:30 - 5:30 | 15                               | 302  | 0    | 0    | 317   | 0                                | 460  | 178  | 0    | 638   | 0                        | 0    | 0    | 0    | 0     | 150                                   | 0    | 15   | 0    | 165   | 1120                         |
| 4:45 - 5:45 | 13                               | 305  | 0    | 0    | 318   | 0                                | 458  | 181  | 0    | 639   | 0                        | 0    | 0    | 0    | 0     | 146                                   | 0    | 17   | 0    | 163   | 1120                         |
| 5:00 - 6:00 | 10                               | 312  | 0    | 0    | 322   | 0                                | 459  | 182  | 0    | 641   | 0                        | 0    | 0    | 0    | 0     | 131                                   | 0    | 19   | 0    | 150   | 1113                         |
| PEAK HOUR   |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 4:00 - 5:00 | 23                               | 273  | 0    | 0    | 296   | 0                                | 485  | 192  | 0    | 677   | 0                        | 0    | 0    | 0    | 0     | 153                                   | 0    | 10   | 0    | 163   | 1136                         |

# CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 216  
and: Lime Kiln Rd  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: MD 216 |      |      |      |       | TRAFFIC FROM SOUTH<br>on: MD 216 |      |      |      |       | TRAFFIC FROM EAST<br>on: |      |      |      |       | TRAFFIC FROM WEST<br>on: Lime Kiln Rd |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|----------------------------------|------|------|------|-------|----------------------------------|------|------|------|-------|--------------------------|------|------|------|-------|---------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                            | THRU | LEFT | U-TN | TOTAL | RIGHT                            | THRU | LEFT | U-TN | TOTAL | RIGHT                    | THRU | LEFT | U-TN | TOTAL | RIGHT                                 | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 7:00 - 7:15 | 2                                | 51   |      | 0    | 53    |                                  | 28   | 17   |      | 45    |                          |      |      |      | 0     | 29                                    |      | 1    | 0    | 30    | 128                          |
| 7:15 - 7:30 | 3                                | 79   |      | 0    | 82    |                                  | 37   | 21   |      | 58    |                          |      |      |      | 0     | 36                                    |      | 5    | 0    | 41    | 181                          |
| 7:30 - 7:45 | 3                                | 119  |      | 0    | 122   |                                  | 34   | 19   |      | 53    |                          |      |      |      | 0     | 61                                    |      | 2    | 0    | 63    | 238                          |
| 7:45 - 8:00 | 2                                | 98   |      | 0    | 100   |                                  | 59   | 28   |      | 87    |                          |      |      |      | 0     | 44                                    |      | 6    | 0    | 50    | 237                          |
| 8:00 - 8:15 | 3                                | 116  |      | 0    | 119   |                                  | 41   | 9    |      | 50    |                          |      |      |      | 0     | 48                                    |      | 6    | 0    | 54    | 223                          |
| 8:15 - 8:30 | 4                                | 141  |      | 0    | 145   |                                  | 58   | 20   |      | 78    |                          |      |      |      | 0     | 29                                    |      | 5    | 0    | 34    | 257                          |
| 8:30 - 8:45 | 1                                | 114  |      | 0    | 115   |                                  | 59   | 19   |      | 78    |                          |      |      |      | 0     | 41                                    |      | 6    | 0    | 47    | 240                          |
| 8:45 - 9:00 | 8                                | 122  |      | 0    | 130   |                                  | 50   | 15   |      | 65    |                          |      |      |      | 0     | 30                                    |      | 4    | 0    | 34    | 229                          |
| 2 Hr Totals | 26                               | 840  | 0    | 0    | 866   | 0                                | 366  | 148  | 0    | 514   | 0                        | 366  | 148  | 0    | 0     | 318                                   | 0    | 35   | 0    | 353   | 1733                         |
| 1 Hr Totals |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 7:00 - 8:00 | 10                               | 347  | 0    | 0    | 357   | 0                                | 158  | 85   | 0    | 243   | 0                        | 158  | 85   | 0    | 243   | 170                                   | 0    | 14   | 0    | 184   | 1027                         |
| 7:15 - 8:15 | 11                               | 412  | 0    | 0    | 423   | 0                                | 171  | 77   | 0    | 248   | 0                        | 171  | 77   | 0    | 248   | 189                                   | 0    | 19   | 0    | 208   | 1127                         |
| 7:30 - 8:30 | 12                               | 474  | 0    | 0    | 486   | 0                                | 192  | 76   | 0    | 268   | 0                        | 192  | 76   | 0    | 268   | 182                                   | 0    | 19   | 0    | 201   | 1223                         |
| 7:45 - 8:45 | 10                               | 469  | 0    | 0    | 479   | 0                                | 217  | 76   | 0    | 293   | 0                        | 217  | 76   | 0    | 293   | 162                                   | 0    | 23   | 0    | 185   | 1250                         |
| 8:00 - 9:00 | 16                               | 493  | 0    | 0    | 509   | 0                                | 208  | 63   | 0    | 271   | 0                        | 208  | 63   | 0    | 271   | 148                                   | 0    | 21   | 0    | 169   | 1220                         |
| PEAK HOUR   |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 7:45 - 8:45 | 10                               | 469  | 0    | 0    | 479   | 0                                | 217  | 76   | 0    | 293   | 0                        | 217  | 76   | 0    | 293   | 162                                   | 0    | 23   | 0    | 185   | 1250                         |
| PM          |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 4:00 - 4:15 | 6                                | 55   |      |      | 61    |                                  | 115  | 49   | 0    | 164   |                          |      |      |      | 0     | 29                                    |      | 3    | 0    | 32    | 257                          |
| 4:15 - 4:30 | 6                                | 71   |      |      | 77    |                                  | 135  | 46   | 0    | 181   |                          |      |      |      | 0     | 38                                    |      | 2    | 0    | 40    | 298                          |
| 4:30 - 4:45 | 2                                | 69   |      |      | 71    |                                  | 129  | 43   | 0    | 172   |                          |      |      |      | 0     | 35                                    |      | 2    | 0    | 37    | 280                          |
| 4:45 - 5:00 | 6                                | 69   |      |      | 75    |                                  | 103  | 44   | 0    | 147   |                          |      |      |      | 0     | 43                                    |      | 1    | 0    | 44    | 266                          |
| 5:00 - 5:15 | 2                                | 70   |      |      | 72    |                                  | 107  | 41   | 0    | 148   |                          |      |      |      | 0     | 34                                    |      | 5    | 0    | 39    | 259                          |
| 5:15 - 5:30 | 4                                | 86   |      |      | 90    |                                  | 118  | 48   | 0    | 166   |                          |      |      |      | 0     | 33                                    |      | 6    | 0    | 39    | 295                          |
| 5:30 - 5:45 | 1                                | 76   |      |      | 77    |                                  | 127  | 47   | 0    | 174   |                          |      |      |      | 0     | 32                                    |      | 5    | 0    | 37    | 288                          |
| 5:45 - 6:00 | 3                                | 74   |      |      | 77    |                                  | 104  | 46   | 0    | 150   |                          |      |      |      | 0     | 28                                    |      | 2    | 0    | 30    | 257                          |
| 2 Hr Totals | 30                               | 570  | 0    | 0    | 600   | 0                                | 938  | 364  | 0    | 1302  | 0                        | 0    | 0    | 0    | 0     | 272                                   | 0    | 26   | 0    | 298   | 2200                         |
| 1 Hr Totals |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 4:00 - 5:00 | 20                               | 264  | 0    | 0    | 284   | 0                                | 482  | 182  | 0    | 664   | 0                        | 0    | 0    | 0    | 0     | 145                                   | 0    | 8    | 0    | 153   | 1101                         |
| 4:15 - 5:15 | 16                               | 279  | 0    | 0    | 295   | 0                                | 474  | 174  | 0    | 648   | 0                        | 0    | 0    | 0    | 0     | 150                                   | 0    | 10   | 0    | 160   | 1103                         |
| 4:30 - 5:30 | 14                               | 294  | 0    | 0    | 308   | 0                                | 457  | 176  | 0    | 633   | 0                        | 0    | 0    | 0    | 0     | 145                                   | 0    | 14   | 0    | 159   | 1100                         |
| 4:45 - 5:45 | 13                               | 301  | 0    | 0    | 314   | 0                                | 455  | 180  | 0    | 635   | 0                        | 0    | 0    | 0    | 0     | 142                                   | 0    | 17   | 0    | 159   | 1108                         |
| 5:00 - 6:00 | 10                               | 306  | 0    | 0    | 316   | 0                                | 456  | 182  | 0    | 638   | 0                        | 0    | 0    | 0    | 0     | 127                                   | 0    | 18   | 0    | 145   | 1099                         |
| PEAK HOUR   |                                  |      |      |      |       |                                  |      |      |      |       |                          |      |      |      |       |                                       |      |      |      |       |                              |
| 4:00 - 5:00 | 20                               | 264  | 0    | 0    | 284   | 0                                | 482  | 182  | 0    | 664   | 0                        | 0    | 0    | 0    | 0     | 145                                   | 0    | 8    | 0    | 153   | 1101                         |



# PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: MD 216  
 and: Lime Kiln Rd #1  
 Location: Howard County, Maryland

Counted by: VCU  
 Date: November 19, 2025  
 Weather: Cold/Cloudy  
 Entered by: CP

Wednesday  
 Star Rating: 4



| TIME          | NORTH LEG<br>MD 216 |          | SOUTH LEG<br>MD 216 |          |
|---------------|---------------------|----------|---------------------|----------|
|               | Pedestrians         | Bicycles | Pedestrians         | Bicycles |
| <b>AM</b>     |                     |          |                     |          |
| 7:00 - 7:15   | 0                   | 0        | 0                   | 0        |
| 7:15 - 7:30   | 0                   | 0        | 0                   | 0        |
| 7:30 - 7:45   | 0                   | 0        | 0                   | 0        |
| 7:45 - 8:00   | 0                   | 0        | 0                   | 0        |
| 8:00 - 8:15   | 0                   | 0        | 0                   | 0        |
| 8:15 - 8:30   | 0                   | 0        | 0                   | 0        |
| 8:30 - 8:45   | 0                   | 0        | 0                   | 0        |
| 8:45 - 9:00   | 0                   | 0        | 0                   | 0        |
| <b>TOTALS</b> | 0                   | 0        | 0                   | 0        |
| <b>PM</b>     |                     |          |                     |          |
| 4:00 - 4:15   | 0                   | 0        | 0                   | 0        |
| 4:15 - 4:30   | 0                   | 0        | 0                   | 0        |
| 4:30 - 4:45   | 0                   | 0        | 0                   | 0        |
| 4:45 - 5:00   | 0                   | 0        | 0                   | 0        |
| 5:00 - 5:15   | 0                   | 0        | 0                   | 0        |
| 5:15 - 5:30   | 0                   | 0        | 0                   | 0        |
| 5:30 - 5:45   | 0                   | 0        | 0                   | 0        |
| 5:45 - 6:00   | 0                   | 0        | 0                   | 0        |
| <b>TOTALS</b> | 0                   | 0        | 0                   | 0        |

|               | EAST LEG<br>MD 216 |          | WEST LEG<br>Lime Kiln Rd #1 |          |
|---------------|--------------------|----------|-----------------------------|----------|
|               | Pedestrians        | Bicycles | Pedestrians                 | Bicycles |
| <b>AM</b>     |                    |          |                             |          |
| 7:00 - 7:15   |                    |          | 0                           | 0        |
| 7:15 - 7:30   |                    |          | 0                           | 0        |
| 7:30 - 7:45   |                    |          | 0                           | 0        |
| 7:45 - 8:00   |                    |          | 1                           | 0        |
| 8:00 - 8:15   |                    |          | 0                           | 0        |
| 8:15 - 8:30   |                    |          | 0                           | 0        |
| 8:30 - 8:45   |                    |          | 0                           | 0        |
| 8:45 - 9:00   |                    |          | 0                           | 0        |
| <b>TOTALS</b> | 0                  | 0        | 1                           | 0        |
| <b>PM</b>     |                    |          |                             |          |
| 4:00 - 4:15   |                    |          | 0                           | 0        |
| 4:15 - 4:30   |                    |          | 0                           | 0        |
| 4:30 - 4:45   |                    |          | 0                           | 0        |
| 4:45 - 5:00   |                    |          | 0                           | 0        |
| 5:00 - 5:15   |                    |          | 0                           | 0        |
| 5:15 - 5:30   |                    |          | 0                           | 0        |
| 5:30 - 5:45   |                    |          | 0                           | 0        |
| 5:45 - 6:00   |                    |          | 0                           | 0        |
| <b>TOTALS</b> | 0                  | 0        | 0                           | 0        |



# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 216  
and: Murphy Road  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME        | TRAFFIC FROM NORTH |       |      |      |      | TRAFFIC FROM SOUTH<br>Murphy Road |     |       |      |      | TRAFFIC FROM EAST<br>MD 216 |       |      |       |      | TRAFFIC FROM WEST<br>MD 216 |      |       |     |       | TOTAL<br>N + S<br>+<br>E + W |      |      |      |       |
|-------------|--------------------|-------|------|------|------|-----------------------------------|-----|-------|------|------|-----------------------------|-------|------|-------|------|-----------------------------|------|-------|-----|-------|------------------------------|------|------|------|-------|
|             | on:                | RIGHT | THRU | LEFT | U-TN | TOTAL                             | on: | RIGHT | THRU | LEFT | U-TN                        | TOTAL | on:  | RIGHT | THRU | LEFT                        | U-TN | TOTAL | on: | RIGHT |                              | THRU | LEFT | U-TN | TOTAL |
| AM          |                    |       |      |      |      |                                   |     |       |      |      |                             |       |      |       |      |                             |      |       |     |       |                              |      |      |      |       |
| 7:00 - 7:15 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 1   | 0     | 1    | 0    | 2                           | 0     | 46   | 1     | 0    | 47                          | 3    | 79    | 0   | 0     | 82                           | 131  |      |      |       |
| 7:15 - 7:30 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 4   | 0     | 2    | 0    | 6                           | 0     | 56   | 1     | 0    | 57                          | 2    | 106   | 0   | 0     | 108                          | 171  |      |      |       |
| 7:30 - 7:45 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 4   | 0     | 3    | 0    | 7                           | 0     | 61   | 1     | 0    | 62                          | 5    | 179   | 0   | 0     | 184                          | 253  |      |      |       |
| 7:45 - 8:00 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 2   | 0     | 3    | 0    | 5                           | 0     | 102  | 2     | 0    | 104                         | 5    | 131   | 0   | 0     | 136                          | 245  |      |      |       |
| 8:00 - 8:15 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 1   | 0     | 0    | 0    | 1                           | 0     | 46   | 1     | 0    | 47                          | 4    | 158   | 0   | 0     | 162                          | 210  |      |      |       |
| 8:15 - 8:30 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 4   | 0     | 1    | 0    | 5                           | 0     | 92   | 0     | 0    | 92                          | 6    | 191   | 0   | 0     | 197                          | 294  |      |      |       |
| 8:30 - 8:45 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 6   | 0     | 2    | 0    | 8                           | 0     | 77   | 1     | 0    | 78                          | 9    | 158   | 0   | 0     | 167                          | 253  |      |      |       |
| 8:45 - 9:00 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 2   | 0     | 1    | 0    | 3                           | 0     | 66   | 3     | 0    | 69                          | 8    | 142   | 0   | 0     | 150                          | 222  |      |      |       |
| 2 Hr Totals | 0                  | 0     | 0    | 0    | 0    | 0                                 | 24  | 0     | 13   | 0    | 37                          | 0     | 546  | 10    | 0    | 556                         | 42   | 1144  | 0   | 0     | 1186                         | 1779 |      |      |       |
| 1 Hr Totals |                    |       |      |      |      |                                   |     |       |      |      |                             |       |      |       |      |                             |      |       |     |       |                              |      |      |      |       |
| 7:00 - 8:00 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 11  | 0     | 9    | 0    | 20                          | 0     | 265  | 5     | 0    | 270                         | 15   | 495   | 0   | 0     | 510                          | 800  |      |      |       |
| 7:15 - 8:15 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 11  | 0     | 8    | 0    | 19                          | 0     | 265  | 5     | 0    | 270                         | 16   | 574   | 0   | 0     | 590                          | 879  |      |      |       |
| 7:30 - 8:30 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 11  | 0     | 7    | 0    | 18                          | 0     | 301  | 4     | 0    | 305                         | 20   | 659   | 0   | 0     | 679                          | 1002 |      |      |       |
| 7:45 - 8:45 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 13  | 0     | 6    | 0    | 19                          | 0     | 317  | 4     | 0    | 321                         | 24   | 638   | 0   | 0     | 662                          | 1002 |      |      |       |
| 8:00 - 9:00 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 13  | 0     | 4    | 0    | 17                          | 0     | 281  | 5     | 0    | 286                         | 27   | 649   | 0   | 0     | 676                          | 979  |      |      |       |
| PEAK HOUR   |                    |       |      |      |      |                                   |     |       |      |      |                             |       |      |       |      |                             |      |       |     |       |                              |      |      |      |       |
| 7:30 - 8:30 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 11  | 0     | 7    | 0    | 18                          | 0     | 301  | 4     | 0    | 305                         | 20   | 659   | 0   | 0     | 679                          | 1002 |      |      |       |
| PM          |                    |       |      |      |      |                                   |     |       |      |      |                             |       |      |       |      |                             |      |       |     |       |                              |      |      |      |       |
| 4:00 - 4:15 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 1   | 0     | 3    | 0    | 4                           | 0     | 157  | 4     | 0    | 161                         | 3    | 91    | 0   | 0     | 94                           | 259  |      |      |       |
| 4:15 - 4:30 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 4   | 0     | 5    | 0    | 9                           | 0     | 179  | 4     | 0    | 183                         | 4    | 110   | 0   | 0     | 114                          | 306  |      |      |       |
| 4:30 - 4:45 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 1   | 0     | 2    | 0    | 3                           | 0     | 174  | 2     | 0    | 176                         | 4    | 109   | 0   | 0     | 113                          | 292  |      |      |       |
| 4:45 - 5:00 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 1   | 0     | 0    | 0    | 1                           | 0     | 150  | 0     | 0    | 150                         | 8    | 108   | 0   | 0     | 116                          | 267  |      |      |       |
| 5:00 - 5:15 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 3   | 0     | 0    | 0    | 3                           | 0     | 156  | 1     | 0    | 157                         | 2    | 102   | 0   | 0     | 104                          | 264  |      |      |       |
| 5:15 - 5:30 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 1   | 0     | 1    | 0    | 2                           | 0     | 166  | 2     | 0    | 168                         | 6    | 116   | 0   | 0     | 122                          | 292  |      |      |       |
| 5:30 - 5:45 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 3   | 0     | 2    | 0    | 5                           | 0     | 162  | 2     | 0    | 164                         | 6    | 103   | 0   | 0     | 109                          | 278  |      |      |       |
| 5:45 - 6:00 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 0   | 0     | 4    | 0    | 4                           | 0     | 150  | 3     | 0    | 153                         | 9    | 101   | 0   | 0     | 110                          | 267  |      |      |       |
| 2 Hr Totals | 0                  | 0     | 0    | 0    | 0    | 0                                 | 14  | 0     | 17   | 0    | 31                          | 0     | 1294 | 18    | 0    | 1312                        | 42   | 840   | 0   | 0     | 882                          | 2225 |      |      |       |
| 1 Hr Totals |                    |       |      |      |      |                                   |     |       |      |      |                             |       |      |       |      |                             |      |       |     |       |                              |      |      |      |       |
| 4:00 - 5:00 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 7   | 0     | 10   | 0    | 17                          | 0     | 660  | 10    | 0    | 670                         | 19   | 418   | 0   | 0     | 437                          | 1124 |      |      |       |
| 4:15 - 5:15 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 9   | 0     | 7    | 0    | 16                          | 0     | 659  | 7     | 0    | 666                         | 18   | 429   | 0   | 0     | 447                          | 1129 |      |      |       |
| 4:30 - 5:30 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 6   | 0     | 3    | 0    | 9                           | 0     | 646  | 5     | 0    | 651                         | 20   | 435   | 0   | 0     | 455                          | 1115 |      |      |       |
| 4:45 - 5:45 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 8   | 0     | 3    | 0    | 11                          | 0     | 634  | 5     | 0    | 639                         | 22   | 429   | 0   | 0     | 451                          | 1101 |      |      |       |
| 5:00 - 6:00 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 7   | 0     | 7    | 0    | 14                          | 0     | 634  | 8     | 0    | 642                         | 23   | 422   | 0   | 0     | 445                          | 1101 |      |      |       |
| PEAK HOUR   |                    |       |      |      |      |                                   |     |       |      |      |                             |       |      |       |      |                             |      |       |     |       |                              |      |      |      |       |
| 4:15 - 5:15 | 0                  | 0     | 0    | 0    | 0    | 0                                 | 9   | 0     | 7    | 0    | 16                          | 0     | 659  | 7     | 0    | 666                         | 18   | 429   | 0   | 0     | 447                          | 1129 |      |      |       |

# CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 216  
 and: Murphy Road  
 Location: Howard County, Maryland

Counted by: VCU  
 Date: November 19, 2025  
 Weather: Cold/Cloudy  
 Entered by: CP

Wednesday  
 Star Rating: 4



| TIME        | TRAFFIC FROM NORTH |       |      |      |      | TRAFFIC FROM SOUTH |                    |       |      |      | TRAFFIC FROM EAST |       |               |       |      | TRAFFIC FROM WEST |      |       |               |       | TOTAL<br>N + S<br>+<br>E + W |      |      |      |       |
|-------------|--------------------|-------|------|------|------|--------------------|--------------------|-------|------|------|-------------------|-------|---------------|-------|------|-------------------|------|-------|---------------|-------|------------------------------|------|------|------|-------|
|             | on:                | RIGHT | THRU | LEFT | U-TN | TOTAL              | on:<br>Murphy Road | RIGHT | THRU | LEFT | U-TN              | TOTAL | on:<br>MD 216 | RIGHT | THRU | LEFT              | U-TN | TOTAL | on:<br>MD 216 | RIGHT |                              | THRU | LEFT | U-TN | TOTAL |
| AM          |                    |       |      |      |      |                    |                    |       |      |      |                   |       |               |       |      |                   |      |       |               |       |                              |      |      |      |       |
| 7:00 - 7:15 |                    |       |      |      |      | 0                  |                    | 1     |      | 1    | 0                 | 2     |               | 45    | 1    | 0                 | 0    | 46    |               | 3     | 78                           |      | 0    | 81   | 129   |
| 7:15 - 7:30 |                    |       |      |      |      | 0                  |                    | 4     |      | 1    | 0                 | 5     |               | 54    | 1    | 0                 | 0    | 55    |               | 2     | 98                           |      | 0    | 100  | 160   |
| 7:30 - 7:45 |                    |       |      |      |      | 0                  |                    | 4     |      | 3    | 0                 | 7     |               | 53    | 1    | 0                 | 0    | 54    |               | 5     | 173                          |      | 0    | 178  | 239   |
| 7:45 - 8:00 |                    |       |      |      |      | 0                  |                    | 2     |      | 3    | 0                 | 5     |               | 90    | 2    | 0                 | 0    | 92    |               | 5     | 128                          |      | 0    | 133  | 230   |
| 8:00 - 8:15 |                    |       |      |      |      | 0                  |                    | 0     |      | 0    | 0                 | 0     |               | 44    | 1    | 0                 | 0    | 45    |               | 4     | 142                          |      | 0    | 146  | 191   |
| 8:15 - 8:30 |                    |       |      |      |      | 0                  |                    | 4     |      | 1    | 0                 | 5     |               | 83    | 0    | 0                 | 0    | 83    |               | 6     | 183                          |      | 0    | 189  | 277   |
| 8:30 - 8:45 |                    |       |      |      |      | 0                  |                    | 6     |      | 2    | 0                 | 8     |               | 72    | 1    | 0                 | 0    | 73    |               | 9     | 149                          |      | 0    | 158  | 239   |
| 8:45 - 9:00 |                    |       |      |      |      | 0                  |                    | 2     |      | 1    | 0                 | 3     |               | 60    | 3    | 0                 | 0    | 63    |               | 8     | 137                          |      | 0    | 145  | 211   |
| 2 Hr Totals | 0                  | 0     | 0    | 0    | 0    | 0                  | 23                 | 0     | 12   | 0    | 35                | 35    | 0             | 501   | 10   | 0                 | 0    | 511   | 511           | 42    | 1088                         | 0    | 0    | 1130 | 1676  |
| 1 Hr Totals |                    |       |      |      |      |                    |                    |       |      |      |                   |       |               |       |      |                   |      |       |               |       |                              |      |      |      |       |
| 7:00 - 8:00 | 0                  | 0     | 0    | 0    | 0    | 0                  | 11                 | 0     | 8    | 0    | 19                | 19    | 0             | 242   | 5    | 0                 | 0    | 247   | 247           | 15    | 477                          | 0    | 0    | 492  | 758   |
| 7:15 - 8:15 | 0                  | 0     | 0    | 0    | 0    | 0                  | 10                 | 0     | 7    | 0    | 17                | 17    | 0             | 241   | 5    | 0                 | 0    | 246   | 246           | 16    | 541                          | 0    | 0    | 557  | 820   |
| 7:30 - 8:30 | 0                  | 0     | 0    | 0    | 0    | 0                  | 10                 | 0     | 7    | 0    | 17                | 17    | 0             | 270   | 4    | 0                 | 0    | 274   | 274           | 20    | 626                          | 0    | 0    | 646  | 937   |
| 7:45 - 8:45 | 0                  | 0     | 0    | 0    | 0    | 0                  | 12                 | 0     | 6    | 0    | 18                | 18    | 0             | 289   | 4    | 0                 | 0    | 293   | 293           | 24    | 602                          | 0    | 0    | 626  | 937   |
| 8:00 - 9:00 | 0                  | 0     | 0    | 0    | 0    | 0                  | 12                 | 0     | 4    | 0    | 16                | 16    | 0             | 259   | 5    | 0                 | 0    | 264   | 264           | 27    | 611                          | 0    | 0    | 638  | 918   |
| PEAK HOUR   |                    |       |      |      |      |                    |                    |       |      |      |                   |       |               |       |      |                   |      |       |               |       |                              |      |      |      |       |
| 7:30 - 8:30 | 0                  | 0     | 0    | 0    | 0    | 0                  | 10                 | 0     | 7    | 0    | 17                | 17    | 0             | 270   | 4    | 0                 | 0    | 274   | 274           | 20    | 626                          | 0    | 0    | 646  | 937   |
| PM          |                    |       |      |      |      |                    |                    |       |      |      |                   |       |               |       |      |                   |      |       |               |       |                              |      |      |      |       |
| 4:00 - 4:15 |                    |       |      |      |      | 0                  | 1                  |       | 3    | 0    | 4                 | 4     |               | 151   | 3    | 0                 | 0    | 154   | 154           | 2     | 88                           |      | 0    | 90   | 248   |
| 4:15 - 4:30 |                    |       |      |      |      | 0                  | 4                  |       | 5    | 0    | 9                 | 9     |               | 173   | 4    | 0                 | 0    | 177   | 177           | 4     | 102                          |      | 0    | 106  | 292   |
| 4:30 - 4:45 |                    |       |      |      |      | 0                  | 1                  |       | 2    | 0    | 3                 | 3     |               | 172   | 2    | 0                 | 0    | 174   | 174           | 4     | 103                          |      | 0    | 107  | 284   |
| 4:45 - 5:00 |                    |       |      |      |      | 0                  | 1                  |       | 0    | 0    | 1                 | 1     |               | 149   | 0    | 0                 | 0    | 149   | 149           | 8     | 107                          |      | 0    | 115  | 265   |
| 5:00 - 5:15 |                    |       |      |      |      | 0                  | 3                  |       | 0    | 0    | 3                 | 3     |               | 154   | 1    | 0                 | 0    | 155   | 155           | 2     | 99                           |      | 0    | 101  | 259   |
| 5:15 - 5:30 |                    |       |      |      |      | 0                  | 1                  |       | 1    | 0    | 2                 | 2     |               | 165   | 2    | 0                 | 0    | 167   | 167           | 6     | 112                          |      | 0    | 118  | 287   |
| 5:30 - 5:45 |                    |       |      |      |      | 0                  | 3                  |       | 2    | 0    | 5                 | 5     |               | 162   | 2    | 0                 | 0    | 164   | 164           | 6     | 102                          |      | 0    | 108  | 277   |
| 5:45 - 6:00 |                    |       |      |      |      | 0                  | 0                  |       | 4    | 0    | 4                 | 4     |               | 150   | 3    | 0                 | 0    | 153   | 153           | 9     | 100                          |      | 0    | 109  | 266   |
| 2 Hr Totals | 0                  | 0     | 0    | 0    | 0    | 0                  | 14                 | 0     | 17   | 0    | 31                | 31    | 0             | 1276  | 17   | 0                 | 0    | 1293  | 1293          | 41    | 813                          | 0    | 0    | 854  | 2178  |
| 1 Hr Totals |                    |       |      |      |      |                    |                    |       |      |      |                   |       |               |       |      |                   |      |       |               |       |                              |      |      |      |       |
| 4:00 - 5:00 | 0                  | 0     | 0    | 0    | 0    | 0                  | 7                  | 0     | 10   | 0    | 17                | 17    | 0             | 645   | 9    | 0                 | 0    | 654   | 654           | 18    | 400                          | 0    | 0    | 418  | 1089  |
| 4:15 - 5:15 | 0                  | 0     | 0    | 0    | 0    | 0                  | 9                  | 0     | 7    | 0    | 16                | 16    | 0             | 648   | 7    | 0                 | 0    | 655   | 655           | 18    | 411                          | 0    | 0    | 429  | 1100  |
| 4:30 - 5:30 | 0                  | 0     | 0    | 0    | 0    | 0                  | 6                  | 0     | 3    | 0    | 9                 | 9     | 0             | 640   | 5    | 0                 | 0    | 645   | 645           | 20    | 421                          | 0    | 0    | 441  | 1095  |
| 4:45 - 5:45 | 0                  | 0     | 0    | 0    | 0    | 0                  | 8                  | 0     | 3    | 0    | 11                | 11    | 0             | 630   | 5    | 0                 | 0    | 635   | 635           | 22    | 420                          | 0    | 0    | 442  | 1088  |
| 5:00 - 6:00 | 0                  | 0     | 0    | 0    | 0    | 0                  | 7                  | 0     | 7    | 0    | 14                | 14    | 0             | 631   | 8    | 0                 | 0    | 639   | 639           | 23    | 413                          | 0    | 0    | 436  | 1089  |
| PEAK HOUR   |                    |       |      |      |      |                    |                    |       |      |      |                   |       |               |       |      |                   |      |       |               |       |                              |      |      |      |       |
| 4:15 - 5:15 | 0                  | 0     | 0    | 0    | 0    | 0                  | 9                  | 0     | 7    | 0    | 16                | 16    | 0             | 648   | 7    | 0                 | 0    | 655   | 655           | 18    | 411                          | 0    | 0    | 429  | 1100  |



# PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: MD 216  
 and: Murphy Road  
 Location: Howard County, Maryland

Counted by: VCU  
 Date: November 19, 2025  
 Weather: Cold/Cloudy  
 Entered by: CP

Wednesday  
 Star Rating: 4



| TIME          | NORTH LEG   |          | SOUTH LEG<br>Murphy Road |          |
|---------------|-------------|----------|--------------------------|----------|
|               | Pedestrians | Bicycles | Pedestrians              | Bicycles |
| <b>AM</b>     |             |          |                          |          |
| 7:00 - 7:15   |             |          | 0                        | 0        |
| 7:15 - 7:30   |             |          | 0                        | 0        |
| 7:30 - 7:45   |             |          | 0                        | 0        |
| 7:45 - 8:00   |             |          | 0                        | 0        |
| 8:00 - 8:15   |             |          | 0                        | 0        |
| 8:15 - 8:30   |             |          | 0                        | 0        |
| 8:30 - 8:45   |             |          | 0                        | 0        |
| 8:45 - 9:00   |             |          | 0                        | 0        |
| <b>TOTALS</b> | 0           | 0        | 0                        | 0        |
| <b>PM</b>     |             |          |                          |          |
| 4:00 - 4:15   |             |          | 1                        | 0        |
| 4:15 - 4:30   |             |          | 0                        | 0        |
| 4:30 - 4:45   |             |          | 0                        | 0        |
| 4:45 - 5:00   |             |          | 0                        | 0        |
| 5:00 - 5:15   |             |          | 0                        | 0        |
| 5:15 - 5:30   |             |          | 0                        | 0        |
| 5:30 - 5:45   |             |          | 0                        | 0        |
| 5:45 - 6:00   |             |          | 0                        | 0        |
| <b>TOTALS</b> | 0           | 0        | 1                        | 0        |

|               | EAST LEG<br>MD 216 |          | WEST LEG<br>MD 216 |          |
|---------------|--------------------|----------|--------------------|----------|
|               | Pedestrians        | Bicycles | Pedestrians        | Bicycles |
| <b>AM</b>     |                    |          |                    |          |
| 7:00 - 7:15   | 0                  | 0        | 0                  | 0        |
| 7:15 - 7:30   | 0                  | 0        | 0                  | 0        |
| 7:30 - 7:45   | 0                  | 0        | 0                  | 0        |
| 7:45 - 8:00   | 0                  | 0        | 0                  | 0        |
| 8:00 - 8:15   | 0                  | 0        | 0                  | 0        |
| 8:15 - 8:30   | 0                  | 0        | 0                  | 0        |
| 8:30 - 8:45   | 0                  | 0        | 0                  | 0        |
| 8:45 - 9:00   | 0                  | 0        | 0                  | 0        |
| <b>TOTALS</b> | 0                  | 0        | 0                  | 0        |
| <b>PM</b>     |                    |          |                    |          |
| 4:00 - 4:15   | 0                  | 0        | 0                  | 0        |
| 4:15 - 4:30   | 0                  | 0        | 0                  | 0        |
| 4:30 - 4:45   | 0                  | 0        | 0                  | 0        |
| 4:45 - 5:00   | 0                  | 0        | 0                  | 0        |
| 5:00 - 5:15   | 0                  | 0        | 0                  | 0        |
| 5:15 - 5:30   | 0                  | 0        | 0                  | 0        |
| 5:30 - 5:45   | 0                  | 0        | 0                  | 0        |
| 5:45 - 6:00   | 0                  | 0        | 0                  | 0        |
| <b>TOTALS</b> | 0                  | 0        | 0                  | 0        |



## TOTALS TURNING MOVEMENT COUNT - SUMMARY

| TOTALS TURNING MOVEMENT COUNT - SUMMARY                                                     |                    |                         |      |      |                    |                                                                                      |      |      |                   |                |      |                             |                   |                                                                                       |      |      |                         |     |   |      |      |
|---------------------------------------------------------------------------------------------|--------------------|-------------------------|------|------|--------------------|--------------------------------------------------------------------------------------|------|------|-------------------|----------------|------|-----------------------------|-------------------|---------------------------------------------------------------------------------------|------|------|-------------------------|-----|---|------|------|
| Intersection of: MD 216<br>and: S Maple Lawn Boulevard<br>Location: Howard County, Maryland |                    |                         |      |      |                    | Counted by: VCU<br>Date: November 19, 2025<br>Weather: Cold/Cloudy<br>Entered by: CP |      |      |                   |                |      | Wednesday<br>Star Rating: 4 |                   |  |      |      |                         |     |   |      |      |
| TIME                                                                                        | TRAFFIC FROM NORTH |                         |      |      | TRAFFIC FROM SOUTH |                                                                                      |      |      | TRAFFIC FROM EAST |                |      |                             | TRAFFIC FROM WEST |                                                                                       |      |      | TOTAL<br>N + S<br>E + W |     |   |      |      |
|                                                                                             | on:<br>RIGHT       | School Entrance<br>THRU | LEFT | U+TN | on:<br>RIGHT       | S Maple Lawn Boulevard<br>THRU                                                       | LEFT | U+TN | on:<br>RIGHT      | MD 216<br>THRU | LEFT | U+TN                        | on:<br>RIGHT      | MD 216<br>THRU                                                                        | LEFT | U+TN |                         |     |   |      |      |
| AM                                                                                          |                    |                         |      |      |                    |                                                                                      |      |      |                   |                |      |                             |                   |                                                                                       |      |      |                         |     |   |      |      |
| 7:00 - 7:15                                                                                 | 1                  | 0                       | 3    | 0    | 4                  | 12                                                                                   | 1    | 1    | 0                 | 14             | 31   | 42                          | 2                 | 0                                                                                     | 75   | 1    | 76                      | 10  | 0 | 87   | 180  |
| 7:15 - 7:30                                                                                 | 3                  | 0                       | 24   | 0    | 27                 | 8                                                                                    | 0    | 0    | 0                 | 8              | 103  | 64                          | 2                 | 0                                                                                     | 169  | 1    | 84                      | 11  | 0 | 96   | 300  |
| 7:30 - 7:45                                                                                 | 13                 | 5                       | 81   | 0    | 99                 | 10                                                                                   | 28   | 0    | 0                 | 38             | 197  | 48                          | 26                | 0                                                                                     | 271  | 1    | 97                      | 45  | 0 | 143  | 551  |
| 7:45 - 8:00                                                                                 | 17                 | 6                       | 103  | 0    | 126                | 11                                                                                   | 23   | 1    | 0                 | 35             | 161  | 74                          | 16                | 0                                                                                     | 251  | 1    | 130                     | 50  | 0 | 181  | 593  |
| 8:00 - 8:15                                                                                 | 2                  | 0                       | 46   | 0    | 48                 | 18                                                                                   | 4    | 0    | 0                 | 22             | 87   | 54                          | 5                 | 0                                                                                     | 146  | 1    | 124                     | 18  | 0 | 143  | 359  |
| 8:15 - 8:30                                                                                 | 12                 | 12                      | 114  | 0    | 138                | 11                                                                                   | 16   | 4    | 0                 | 31             | 152  | 61                          | 1                 | 0                                                                                     | 214  | 0    | 149                     | 31  | 0 | 180  | 563  |
| 8:30 - 8:45                                                                                 | 14                 | 7                       | 66   | 0    | 87                 | 17                                                                                   | 3    | 6    | 0                 | 26             | 81   | 69                          | 9                 | 0                                                                                     | 159  | 1    | 158                     | 21  | 0 | 180  | 452  |
| 8:45 - 9:00                                                                                 | 3                  | 2                       | 29   | 0    | 34                 | 17                                                                                   | 5    | 4    | 0                 | 26             | 55   | 60                          | 4                 | 0                                                                                     | 119  | 2    | 148                     | 11  | 0 | 161  | 340  |
| 2 Hr Totals                                                                                 | 65                 | 32                      | 466  | 0    | 563                | 104                                                                                  | 80   | 16   | 0                 | 200            | 867  | 472                         | 65                | 0                                                                                     | 1404 | 8    | 966                     | 197 | 0 | 1171 | 3338 |
| 1 Hr Totals                                                                                 |                    |                         |      |      |                    |                                                                                      |      |      |                   |                |      |                             |                   |                                                                                       |      |      |                         |     |   |      |      |
| 7:00 - 8:00                                                                                 | 34                 | 11                      | 211  | 0    | 256                | 41                                                                                   | 52   | 2    | 0                 | 95             | 492  | 228                         | 46                | 0                                                                                     | 766  | 4    | 387                     | 116 | 0 | 507  | 1624 |
| 7:15 - 8:15                                                                                 | 35                 | 11                      | 254  | 0    | 300                | 47                                                                                   | 55   | 1    | 0                 | 103            | 548  | 240                         | 49                | 0                                                                                     | 837  | 4    | 435                     | 124 | 0 | 563  | 1803 |
| 7:30 - 8:30                                                                                 | 44                 | 23                      | 344  | 0    | 411                | 50                                                                                   | 71   | 5    | 0                 | 126            | 597  | 237                         | 48                | 0                                                                                     | 882  | 3    | 500                     | 144 | 0 | 647  | 2066 |
| 7:45 - 8:45                                                                                 | 45                 | 25                      | 329  | 0    | 399                | 57                                                                                   | 46   | 11   | 0                 | 114            | 481  | 258                         | 31                | 0                                                                                     | 770  | 3    | 561                     | 120 | 0 | 684  | 1967 |
| 8:00 - 9:00                                                                                 | 31                 | 21                      | 265  | 0    | 307                | 63                                                                                   | 28   | 14   | 0                 | 105            | 375  | 244                         | 19                | 0                                                                                     | 638  | 4    | 579                     | 81  | 0 | 664  | 1714 |
| PEAK HOUR                                                                                   | 44                 | 23                      | 344  | 0    | 411                | 50                                                                                   | 71   | 5    | 0                 | 126            | 597  | 237                         | 48                | 0                                                                                     | 882  | 3    | 500                     | 144 | 0 | 647  | 2066 |
| 7:30 - 8:30                                                                                 |                    |                         |      |      |                    |                                                                                      |      |      |                   |                |      |                             |                   |                                                                                       |      |      |                         |     |   |      |      |
| PM                                                                                          |                    |                         |      |      |                    |                                                                                      |      |      |                   |                |      |                             |                   |                                                                                       |      |      |                         |     |   |      |      |
| 4:00 - 4:15                                                                                 | 29                 | 6                       | 115  | 0    | 150                | 8                                                                                    | 1    | 3    | 0                 | 12             | 29   | 133                         | 4                 | 0                                                                                     | 166  | 3    | 82                      | 10  | 0 | 95   | 423  |
| 4:15 - 4:30                                                                                 | 20                 | 1                       | 79   | 0    | 100                | 7                                                                                    | 0    | 3    | 1                 | 11             | 40   | 142                         | 13                | 1                                                                                     | 196  | 0    | 90                      | 11  | 0 | 101  | 408  |
| 4:30 - 4:45                                                                                 | 25                 | 9                       | 72   | 0    | 106                | 9                                                                                    | 1    | 2    | 0                 | 12             | 25   | 145                         | 14                | 0                                                                                     | 184  | 1    | 97                      | 10  | 0 | 108  | 410  |
| 4:45 - 5:00                                                                                 | 6                  | 2                       | 35   | 2    | 45                 | 14                                                                                   | 3    | 2    | 0                 | 19             | 43   | 154                         | 16                | 0                                                                                     | 213  | 3    | 101                     | 3   | 0 | 107  | 384  |
| 5:00 - 5:15                                                                                 | 9                  | 4                       | 44   | 0    | 57                 | 11                                                                                   | 2    | 0    | 0                 | 13             | 37   | 129                         | 17                | 0                                                                                     | 183  | 0    | 103                     | 6   | 0 | 109  | 362  |
| 5:15 - 5:30                                                                                 | 5                  | 2                       | 39   | 0    | 46                 | 4                                                                                    | 3    | 3    | 0                 | 10             | 30   | 151                         | 15                | 1                                                                                     | 197  | 0    | 110                     | 3   | 0 | 113  | 366  |
| 5:30 - 5:45                                                                                 | 6                  | 2                       | 34   | 0    | 42                 | 24                                                                                   | 1    | 4    | 0                 | 29             | 29   | 161                         | 18                | 0                                                                                     | 208  | 1    | 105                     | 1   | 0 | 107  | 386  |
| 5:45 - 6:00                                                                                 | 5                  | 1                       | 12   | 0    | 18                 | 12                                                                                   | 2    | 4    | 0                 | 18             | 35   | 147                         | 10                | 0                                                                                     | 192  | 1    | 102                     | 4   | 0 | 107  | 335  |
| 2 Hr Totals                                                                                 | 105                | 27                      | 430  | 2    | 564                | 89                                                                                   | 13   | 21   | 1                 | 124            | 266  | 1162                        | 107               | 2                                                                                     | 1539 | 9    | 790                     | 48  | 0 | 847  | 3074 |
| 1 Hr Totals                                                                                 |                    |                         |      |      |                    |                                                                                      |      |      |                   |                |      |                             |                   |                                                                                       |      |      |                         |     |   |      |      |
| 4:00 - 5:00                                                                                 | 80                 | 18                      | 301  | 2    | 401                | 38                                                                                   | 5    | 10   | 1                 | 54             | 137  | 574                         | 47                | 1                                                                                     | 759  | 7    | 370                     | 34  | 0 | 411  | 1625 |
| 4:15 - 5:15                                                                                 | 60                 | 16                      | 230  | 2    | 308                | 41                                                                                   | 6    | 7    | 1                 | 55             | 145  | 570                         | 60                | 1                                                                                     | 776  | 4    | 391                     | 30  | 0 | 425  | 1564 |
| 4:30 - 5:30                                                                                 | 45                 | 17                      | 190  | 2    | 254                | 38                                                                                   | 9    | 7    | 0                 | 54             | 135  | 579                         | 62                | 1                                                                                     | 777  | 4    | 411                     | 22  | 0 | 437  | 1522 |
| 4:45 - 5:45                                                                                 | 26                 | 10                      | 152  | 2    | 190                | 53                                                                                   | 9    | 9    | 0                 | 71             | 139  | 595                         | 66                | 1                                                                                     | 801  | 4    | 419                     | 13  | 0 | 436  | 1488 |
| 5:00 - 6:00                                                                                 | 25                 | 9                       | 129  | 0    | 163                | 51                                                                                   | 8    | 11   | 0                 | 70             | 131  | 588                         | 60                | 1                                                                                     | 780  | 2    | 420                     | 14  | 0 | 436  | 1449 |
| PEAK HOUR                                                                                   | 60                 | 16                      | 230  | 2    | 308                | 41                                                                                   | 6    | 7    | 1                 | 55             | 145  | 570                         | 60                | 1                                                                                     | 776  | 4    | 391                     | 30  | 0 | 425  | 1564 |
| 4:15 - 5:15                                                                                 |                    |                         |      |      |                    |                                                                                      |      |      |                   |                |      |                             |                   |                                                                                       |      |      |                         |     |   |      |      |



Wednesday  
Star Rating: 4

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy

Intersection of: MD 216  
and: S Maple Lawn Boulevard  
Location: Howard County, Maryland

# CARS TURNING MOVEMENT COUNT - SUMMARY

| TIME      | TRAFFIC FROM NORTH     |           |      |      |      |       | TRAFFIC FROM SOUTH            |       |      |      |      |       | TRAFFIC FROM EAST |       |      |      |      |       | TRAFFIC FROM WEST |       |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-----------|------------------------|-----------|------|------|------|-------|-------------------------------|-------|------|------|------|-------|-------------------|-------|------|------|------|-------|-------------------|-------|------|------|------|-------|------------------------------|
|           | on:<br>School Entrance | RIGHT     | THRU | LEFT | U-TN | TOTAL | on:<br>S Maple Lawn Boulevard | RIGHT | THRU | LEFT | U-TN | TOTAL | on:<br>MD 216     | RIGHT | THRU | LEFT | U-TN | TOTAL | on:<br>MD 216     | RIGHT | THRU | LEFT | U-TN | TOTAL |                              |
| AM        | 7:00-7:15              | 1         | 0    | 3    | 0    | 4     | 12                            | 1     | 1    | 0    | 0    | 14    | 31                | 41    | 2    | 0    | 74   | 1     | 76                | 10    | 0    | 87   | 179  |       |                              |
|           | 7:15-7:30              | 3         | 0    | 21   | 0    | 24    | 8                             | 0     | 0    | 0    | 8    | 8     | 95                | 61    | 2    | 0    | 158  | 1     | 80                | 9     | 0    | 90   | 280  |       |                              |
|           | 7:30-7:45              | 8         | 5    | 65   | 0    | 78    | 9                             | 27    | 0    | 0    | 36   | 177   | 44                | 25    | 0    | 246  | 0    | 94    | 42                | 0     | 136  | 496  |      |       |                              |
|           | 7:45-8:00              | 11        | 6    | 93   | 0    | 110   | 11                            | 23    | 1    | 0    | 35   | 153   | 68                | 16    | 0    | 237  | 1    | 128   | 48                | 0     | 177  | 559  |      |       |                              |
|           | 8:00-8:15              | 2         | 0    | 39   | 0    | 41    | 18                            | 4     | 0    | 0    | 22   | 84    | 52                | 5     | 0    | 141  | 1    | 119   | 14                | 0     | 134  | 338  |      |       |                              |
|           | 8:15-8:30              | 9         | 12   | 106  | 0    | 127   | 11                            | 16    | 4    | 0    | 31   | 149   | 58                | 1     | 0    | 208  | 0    | 142   | 24                | 0     | 166  | 532  |      |       |                              |
|           | 8:30-8:45              | 11        | 7    | 66   | 0    | 84    | 17                            | 3     | 5    | 0    | 25   | 81    | 66                | 8     | 0    | 155  | 1    | 151   | 20                | 0     | 172  | 436  |      |       |                              |
|           | 8:45-9:00              | 3         | 2    | 27   | 0    | 32    | 17                            | 5     | 4    | 0    | 26   | 52    | 57                | 4     | 0    | 113  | 2    | 143   | 11                | 0     | 156  | 327  |      |       |                              |
|           | 2 Hr Totals            | 48        | 32   | 420  | 0    | 500   | 103                           | 79    | 15   | 0    | 197  | 822   | 447               | 63    | 0    | 1332 | 7    | 933   | 178               | 0     | 1118 | 3147 |      |       |                              |
|           | 1 Hr Totals            | 23        | 11   | 182  | 0    | 216   | 40                            | 51    | 2    | 0    | 93   | 456   | 214               | 45    | 0    | 715  | 3    | 378   | 109               | 0     | 490  | 1514 |      |       |                              |
| PM        | 7:00-8:00              | 23        | 11   | 182  | 0    | 216   | 40                            | 51    | 2    | 0    | 93   | 456   | 214               | 45    | 0    | 715  | 3    | 378   | 109               | 0     | 490  | 1514 |      |       |                              |
|           | 7:15-8:15              | 24        | 11   | 218  | 0    | 253   | 46                            | 54    | 1    | 0    | 101  | 509   | 225               | 48    | 0    | 782  | 3    | 421   | 113               | 0     | 537  | 1673 |      |       |                              |
|           | 7:30-8:30              | 30        | 23   | 303  | 0    | 356   | 49                            | 70    | 5    | 0    | 124  | 563   | 222               | 47    | 0    | 832  | 2    | 483   | 128               | 0     | 613  | 1925 |      |       |                              |
|           | 7:45-8:45              | 33        | 25   | 304  | 0    | 362   | 57                            | 46    | 10   | 0    | 113  | 467   | 244               | 30    | 0    | 741  | 3    | 540   | 106               | 0     | 649  | 1865 |      |       |                              |
|           | 8:00-9:00              | 25        | 21   | 238  | 0    | 284   | 63                            | 28    | 13   | 0    | 104  | 366   | 233               | 18    | 0    | 617  | 4    | 555   | 69                | 0     | 628  | 1633 |      |       |                              |
|           | PEAK HOUR              | 7:30-8:30 | 30   | 23   | 303  | 0     | 356                           | 49    | 70   | 5    | 0    | 124   | 563               | 222   | 47   | 0    | 832  | 2     | 483               | 128   | 0    | 613  | 1925 |       |                              |
|           | 8:30-9:00              | 30        | 23   | 303  | 0    | 356   | 49                            | 70    | 5    | 0    | 124  | 563   | 222               | 47    | 0    | 832  | 2    | 483   | 128               | 0     | 613  | 1925 |      |       |                              |
|           | 2 Hr Totals            | 101       | 27   | 417  | 2    | 547   | 89                            | 13    | 19   | 1    | 122  | 263   | 1152              | 106   | 2    | 1523 | 9    | 769   | 46                | 0     | 824  | 3016 |      |       |                              |
|           | 1 Hr Totals            | 76        | 18   | 289  | 2    | 385   | 38                            | 5     | 8    | 1    | 52   | 132   | 567               | 46    | 1    | 746  | 7    | 357   | 32                | 0     | 386  | 1579 |      |       |                              |
|           | 4:00-5:00              | 59        | 16   | 227  | 2    | 304   | 41                            | 6     | 5    | 1    | 53   | 144   | 564               | 59    | 1    | 768  | 4    | 375   | 29                | 0     | 408  | 1533 |      |       |                              |
| PEAK HOUR | 4:15-5:15              | 45        | 17   | 188  | 2    | 252   | 38                            | 9     | 7    | 0    | 54   | 134   | 573               | 62    | 1    | 770  | 4    | 389   | 21                | 0     | 424  | 1483 |      |       |                              |
|           | 4:30-5:30              | 26        | 10   | 151  | 2    | 189   | 53                            | 9     | 9    | 0    | 71   | 138   | 591               | 66    | 1    | 766  | 4    | 410   | 13                | 0     | 427  | 1463 |      |       |                              |
|           | 4:45-5:45              | 25        | 9    | 128  | 0    | 162   | 51                            | 8     | 11   | 0    | 70   | 131   | 585               | 60    | 1    | 777  | 2    | 412   | 14                | 0     | 428  | 1437 |      |       |                              |
|           | 5:00-6:00              | 25        | 9    | 128  | 0    | 162   | 51                            | 8     | 11   | 0    | 70   | 131   | 585               | 60    | 1    | 777  | 2    | 412   | 14                | 0     | 428  | 1437 |      |       |                              |
|           | 5:15-5:30              | 5         | 2    | 39   | 0    | 46    | 4                             | 3     | 3    | 0    | 10   | 30    | 150               | 15    | 1    | 196  | 0    | 107   | 3                 | 0     | 110  | 362  |      |       |                              |
|           | 5:30-5:45              | 6         | 2    | 34   | 0    | 42    | 24                            | 1     | 4    | 0    | 28   | 35    | 161               | 18    | 0    | 208  | 1    | 104   | 1                 | 0     | 106  | 335  |      |       |                              |
|           | 5:45-6:00              | 5         | 1    | 12   | 0    | 18    | 12                            | 2     | 4    | 0    | 18   | 35    | 147               | 10    | 0    | 192  | 1    | 102   | 4                 | 0     | 107  | 335  |      |       |                              |
|           | 2 Hr Totals            | 101       | 27   | 417  | 2    | 547   | 89                            | 13    | 19   | 1    | 122  | 263   | 1152              | 106   | 2    | 1523 | 9    | 769   | 46                | 0     | 824  | 3016 |      |       |                              |
|           | 1 Hr Totals            | 76        | 18   | 289  | 2    | 385   | 38                            | 5     | 8    | 1    | 52   | 132   | 567               | 46    | 1    | 746  | 7    | 357   | 32                | 0     | 386  | 1579 |      |       |                              |
|           | 4:00-5:00              | 59        | 16   | 227  | 2    | 304   | 41                            | 6     | 5    | 1    | 53   | 144   | 564               | 59    | 1    | 768  | 4    | 375   | 29                | 0     | 408  | 1533 |      |       |                              |
| PEAK HOUR | 4:15-5:15              | 59        | 16   | 227  | 2    | 304   | 41                            | 6     | 5    | 1    | 53   | 144   | 564               | 59    | 1    | 768  | 4    | 375   | 29                | 0     | 408  | 1533 |      |       |                              |



# PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: MD 216  
 and: S Maple Lawn Boulevard  
 Location: Howard County, Maryland

Counted by: VCU  
 Date: November 19, 2025  
 Weather: Cold/Cloudy  
 Entered by: CP

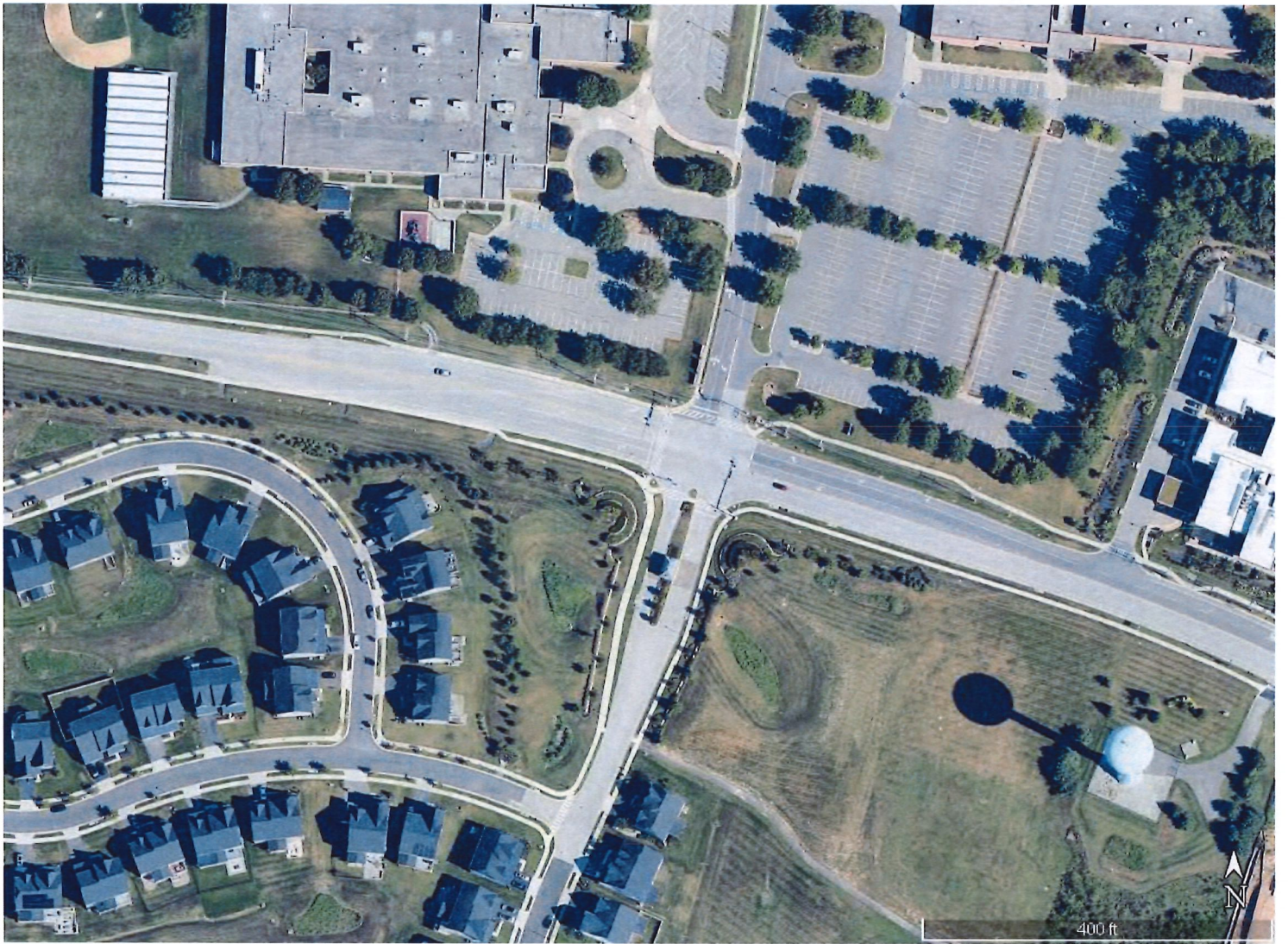
Wednesday  
 Star Rating: 4



| TIME          | NORTH LEG<br>School Entrance |          | SOUTH LEG<br>S Maple Lawn Boulevard |          |
|---------------|------------------------------|----------|-------------------------------------|----------|
|               | Pedestrians                  | Bicycles | Pedestrians                         | Bicycles |
| <b>AM</b>     |                              |          |                                     |          |
| 7:00 - 7:15   | 0                            | 0        | 0                                   | 0        |
| 7:15 - 7:30   | 0                            | 0        | 0                                   | 0        |
| 7:30 - 7:45   | 0                            | 0        | 0                                   | 0        |
| 7:45 - 8:00   | 0                            | 0        | 0                                   | 0        |
| 8:00 - 8:15   | 2                            | 0        | 0                                   | 0        |
| 8:15 - 8:30   | 0                            | 0        | 0                                   | 0        |
| 8:30 - 8:45   | 3                            | 0        | 0                                   | 0        |
| 8:45 - 9:00   | 4                            | 0        | 0                                   | 0        |
| <b>TOTALS</b> | 9                            | 0        | 0                                   | 0        |
| <b>PM</b>     |                              |          |                                     |          |
| 4:00 - 4:15   | 21                           | 0        | 0                                   | 0        |
| 4:15 - 4:30   | 4                            | 0        | 0                                   | 0        |
| 4:30 - 4:45   | 0                            | 0        | 0                                   | 0        |
| 4:45 - 5:00   | 0                            | 0        | 0                                   | 0        |
| 5:00 - 5:15   | 0                            | 0        | 0                                   | 0        |
| 5:15 - 5:30   | 0                            | 0        | 0                                   | 0        |
| 5:30 - 5:45   | 0                            | 0        | 0                                   | 0        |
| 5:45 - 6:00   | 0                            | 0        | 1                                   | 0        |
| <b>TOTALS</b> | 25                           | 0        | 1                                   | 0        |

|               | EAST LEG<br>MD 216 |          | WEST LEG<br>MD 216 |          |
|---------------|--------------------|----------|--------------------|----------|
|               | Pedestrians        | Bicycles | Pedestrians        | Bicycles |
| <b>AM</b>     |                    |          |                    |          |
| 7:00 - 7:15   | 0                  | 0        | 1                  | 0        |
| 7:15 - 7:30   | 0                  | 0        | 0                  | 0        |
| 7:30 - 7:45   | 0                  | 0        | 2                  | 1        |
| 7:45 - 8:00   | 0                  | 0        | 1                  | 0        |
| 8:00 - 8:15   | 0                  | 0        | 13                 | 0        |
| 8:15 - 8:30   | 0                  | 0        | 5                  | 0        |
| 8:30 - 8:45   | 0                  | 0        | 0                  | 0        |
| 8:45 - 9:00   | 0                  | 0        | 0                  | 0        |
| <b>TOTALS</b> | 0                  | 0        | 22                 | 1        |
| <b>PM</b>     |                    |          |                    |          |
| 4:00 - 4:15   | 0                  | 0        | 55                 | 0        |
| 4:15 - 4:30   | 0                  | 0        | 4                  | 0        |
| 4:30 - 4:45   | 0                  | 0        | 2                  | 0        |
| 4:45 - 5:00   | 0                  | 0        | 0                  | 0        |
| 5:00 - 5:15   | 0                  | 0        | 2                  | 0        |
| 5:15 - 5:30   | 0                  | 0        | 1                  | 0        |
| 5:30 - 5:45   | 0                  | 0        | 0                  | 0        |
| 5:45 - 6:00   | 0                  | 0        | 0                  | 0        |
| <b>TOTALS</b> | 0                  | 0        | 64                 | 0        |



# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 216  
and: Westside Boulevard - Old Columbia Road  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: Westside Boulevard |      |      |      |       | TRAFFIC FROM SOUTH<br>on: Old Columbia Road |      |      |      |       | TRAFFIC FROM EAST<br>on: MD 216 |      |      |      |       | TRAFFIC FROM WEST<br>on: MD 216 |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|----------------------------------------------|------|------|------|-------|---------------------------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                        | THRU | LEFT | U-TN | TOTAL | RIGHT                                       | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                              |      |      |      |       |                                             |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 7:00 - 7:15 | 20                                           | 0    | 24   | 0    | 44    | 15                                          | 3    | 0    | 0    | 18    | 41                              | 80   | 9    | 1    | 131   | 0                               | 71   | 12   | 0    | 83    | 276                          |
| 7:15 - 7:30 | 15                                           | 0    | 26   | 0    | 41    | 8                                           | 4    | 0    | 0    | 12    | 42                              | 195  | 6    | 4    | 247   | 0                               | 109  | 12   | 0    | 121   | 421                          |
| 7:30 - 7:45 | 25                                           | 0    | 38   | 0    | 63    | 3                                           | 5    | 1    | 0    | 9     | 34                              | 290  | 7    | 3    | 334   | 0                               | 188  | 31   | 1    | 220   | 626                          |
| 7:45 - 8:00 | 16                                           | 7    | 57   | 0    | 80    | 8                                           | 0    | 4    | 0    | 12    | 68                              | 159  | 2    | 0    | 229   | 3                               | 205  | 33   | 2    | 243   | 564                          |
| 8:00 - 8:15 | 24                                           | 0    | 35   | 0    | 59    | 3                                           | 2    | 0    | 0    | 5     | 66                              | 145  | 15   | 1    | 227   | 6                               | 156  | 27   | 0    | 189   | 480                          |
| 8:15 - 8:30 | 30                                           | 2    | 44   | 0    | 76    | 12                                          | 0    | 3    | 0    | 15    | 56                              | 169  | 8    | 0    | 233   | 1                               | 233  | 50   | 1    | 285   | 609                          |
| 8:30 - 8:45 | 20                                           | 4    | 34   | 0    | 58    | 10                                          | 0    | 0    | 0    | 10    | 70                              | 120  | 10   | 0    | 200   | 6                               | 198  | 32   | 2    | 238   | 506                          |
| 8:45 - 9:00 | 17                                           | 1    | 55   | 0    | 73    | 6                                           | 0    | 0    | 0    | 6     | 82                              | 110  | 23   | 4    | 219   | 15                              | 120  | 25   | 1    | 161   | 459                          |
| 2 Hr Totals | 167                                          | 14   | 313  | 0    | 494   | 65                                          | 14   | 8    | 0    | 87    | 459                             | 1268 | 80   | 13   | 1820  | 31                              | 1280 | 222  | 7    | 1540  | 3941                         |
| 1 Hr Totals |                                              |      |      |      |       |                                             |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 7:00 - 8:00 | 76                                           | 7    | 145  | 0    | 228   | 34                                          | 12   | 5    | 0    | 51    | 185                             | 724  | 24   | 8    | 941   | 3                               | 573  | 88   | 3    | 667   | 1887                         |
| 7:15 - 8:15 | 80                                           | 7    | 156  | 0    | 243   | 22                                          | 11   | 5    | 0    | 38    | 210                             | 789  | 30   | 8    | 1037  | 9                               | 658  | 103  | 3    | 773   | 2091                         |
| 7:30 - 8:30 | 95                                           | 9    | 174  | 0    | 278   | 26                                          | 7    | 8    | 0    | 41    | 224                             | 763  | 32   | 4    | 1023  | 10                              | 782  | 141  | 4    | 937   | 2279                         |
| 7:45 - 8:45 | 90                                           | 13   | 170  | 0    | 273   | 33                                          | 2    | 7    | 0    | 42    | 260                             | 593  | 35   | 1    | 889   | 16                              | 792  | 142  | 5    | 955   | 2159                         |
| 8:00 - 9:00 | 91                                           | 7    | 168  | 0    | 266   | 31                                          | 2    | 3    | 0    | 36    | 274                             | 544  | 56   | 5    | 879   | 28                              | 707  | 134  | 4    | 873   | 2054                         |
| PEAK HOUR   |                                              |      |      |      |       |                                             |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 7:30 - 8:30 | 95                                           | 9    | 174  | 0    | 278   | 26                                          | 7    | 8    | 0    | 41    | 224                             | 763  | 32   | 4    | 1023  | 10                              | 782  | 141  | 4    | 937   | 2279                         |
| PM          |                                              |      |      |      |       |                                             |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 4:00 - 4:15 | 42                                           | 0    | 90   | 0    | 132   | 14                                          | 0    | 8    | 0    | 22    | 62                              | 110  | 10   | 1    | 183   | 2                               | 171  | 52   | 0    | 225   | 562                          |
| 4:15 - 4:30 | 40                                           | 0    | 81   | 0    | 121   | 11                                          | 2    | 6    | 0    | 19    | 65                              | 164  | 3    | 0    | 232   | 1                               | 137  | 35   | 0    | 173   | 545                          |
| 4:30 - 4:45 | 46                                           | 10   | 92   | 0    | 148   | 20                                          | 0    | 8    | 0    | 28    | 71                              | 132  | 8    | 1    | 212   | 0                               | 148  | 29   | 1    | 178   | 566                          |
| 4:45 - 5:00 | 44                                           | 0    | 83   | 0    | 127   | 6                                           | 5    | 3    | 0    | 14    | 90                              | 159  | 11   | 2    | 262   | 3                               | 113  | 33   | 0    | 149   | 552                          |
| 5:00 - 5:15 | 40                                           | 2    | 95   | 0    | 137   | 16                                          | 3    | 6    | 0    | 25    | 65                              | 143  | 7    | 0    | 215   | 3                               | 118  | 37   | 0    | 158   | 535                          |
| 5:15 - 5:30 | 37                                           | 3    | 88   | 0    | 128   | 21                                          | 6    | 4    | 0    | 31    | 75                              | 170  | 12   | 0    | 257   | 3                               | 126  | 31   | 0    | 160   | 576                          |
| 5:30 - 5:45 | 33                                           | 4    | 84   | 0    | 121   | 8                                           | 4    | 3    | 0    | 15    | 69                              | 156  | 10   | 0    | 235   | 1                               | 127  | 34   | 0    | 162   | 533                          |
| 5:45 - 6:00 | 34                                           | 7    | 61   | 0    | 102   | 10                                          | 1    | 3    | 0    | 14    | 79                              | 158  | 10   | 0    | 247   | 2                               | 82   | 30   | 0    | 114   | 477                          |
| 2 Hr Totals | 316                                          | 26   | 674  | 0    | 1016  | 106                                         | 21   | 41   | 0    | 168   | 576                             | 1192 | 71   | 4    | 1843  | 15                              | 1022 | 281  | 1    | 1319  | 4346                         |
| 1 Hr Totals |                                              |      |      |      |       |                                             |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 4:00 - 5:00 | 172                                          | 10   | 346  | 0    | 528   | 51                                          | 7    | 25   | 0    | 83    | 288                             | 565  | 32   | 4    | 889   | 6                               | 569  | 149  | 1    | 725   | 2225                         |
| 4:15 - 5:15 | 170                                          | 12   | 351  | 0    | 533   | 53                                          | 10   | 23   | 0    | 86    | 291                             | 598  | 29   | 3    | 921   | 7                               | 516  | 134  | 1    | 658   | 2198                         |
| 4:30 - 5:30 | 167                                          | 15   | 358  | 0    | 540   | 63                                          | 14   | 21   | 0    | 98    | 301                             | 604  | 38   | 3    | 946   | 9                               | 505  | 130  | 1    | 645   | 2229                         |
| 4:45 - 5:45 | 154                                          | 9    | 350  | 0    | 513   | 51                                          | 18   | 16   | 0    | 85    | 299                             | 628  | 40   | 2    | 969   | 10                              | 484  | 135  | 0    | 629   | 2196                         |
| 5:00 - 6:00 | 144                                          | 16   | 328  | 0    | 488   | 55                                          | 14   | 16   | 0    | 85    | 288                             | 627  | 39   | 0    | 954   | 9                               | 453  | 132  | 0    | 594   | 2121                         |
| PEAK HOUR   |                                              |      |      |      |       |                                             |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 4:30 - 5:30 | 167                                          | 15   | 358  | 0    | 540   | 63                                          | 14   | 21   | 0    | 98    | 301                             | 604  | 38   | 3    | 946   | 9                               | 505  | 130  | 1    | 645   | 2229                         |

# CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 216  
and: Westside Boulevard - Old Columbia Road  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>Westside Boulevard |      |      |      |       | TRAFFIC FROM SOUTH<br>Old Columbia Road |      |      |      |       | TRAFFIC FROM EAST<br>MD 216 |      |      |      |       | TRAFFIC FROM WEST<br>MD 216 |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|------------------------------------------|------|------|------|-------|-----------------------------------------|------|------|------|-------|-----------------------------|------|------|------|-------|-----------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                    | THRU | LEFT | U-TN | TOTAL | RIGHT                                   | THRU | LEFT | U-TN | TOTAL | RIGHT                       | THRU | LEFT | U-TN | TOTAL | RIGHT                       | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                          |      |      |      |       |                                         |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                              |
| 7:00 - 7:15 | 19                                       | 0    | 23   | 0    | 42    | 11                                      | 3    | 0    | 0    | 14    | 40                          | 80   | 6    | 1    | 127   | 0                           | 71   | 12   | 0    | 83    | 266                          |
| 7:15 - 7:30 | 15                                       | 0    | 25   | 0    | 40    | 8                                       | 4    | 0    | 0    | 12    | 42                          | 181  | 3    | 3    | 229   | 0                           | 100  | 12   | 0    | 112   | 393                          |
| 7:30 - 7:45 | 25                                       | 0    | 37   | 0    | 62    | 2                                       | 5    | 0    | 0    | 7     | 34                          | 265  | 7    | 3    | 309   | 0                           | 171  | 30   | 0    | 201   | 579                          |
| 7:45 - 8:00 | 16                                       | 7    | 56   | 0    | 79    | 6                                       | 0    | 4    | 0    | 10    | 68                          | 150  | 0    | 0    | 218   | 3                           | 194  | 30   | 2    | 229   | 536                          |
| 8:00 - 8:15 | 24                                       | 0    | 33   | 0    | 57    | 2                                       | 2    | 0    | 0    | 4     | 66                          | 139  | 12   | 1    | 218   | 5                           | 146  | 25   | 0    | 176   | 455                          |
| 8:15 - 8:30 | 30                                       | 2    | 43   | 0    | 75    | 12                                      | 0    | 3    | 0    | 15    | 55                          | 166  | 7    | 0    | 228   | 0                           | 223  | 49   | 1    | 273   | 591                          |
| 8:30 - 8:45 | 17                                       | 4    | 34   | 0    | 55    | 8                                       | 0    | 0    | 0    | 8     | 66                          | 118  | 9    | 0    | 193   | 6                           | 192  | 31   | 2    | 231   | 487                          |
| 8:45 - 9:00 | 15                                       | 0    | 51   | 0    | 66    | 5                                       | 0    | 0    | 0    | 5     | 82                          | 107  | 22   | 4    | 215   | 14                          | 116  | 24   | 1    | 155   | 441                          |
| 2 Hr Totals | 161                                      | 13   | 302  | 0    | 476   | 54                                      | 14   | 7    | 0    | 75    | 453                         | 1206 | 66   | 12   | 1737  | 28                          | 1213 | 213  | 6    | 1460  | 3748                         |
| 1 Hr Totals |                                          |      |      |      |       |                                         |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                              |
| 7:00 - 8:00 | 75                                       | 7    | 141  | 0    | 223   | 27                                      | 12   | 4    | 0    | 43    | 184                         | 676  | 16   | 7    | 883   | 3                           | 536  | 84   | 2    | 625   | 1774                         |
| 7:15 - 8:15 | 80                                       | 7    | 151  | 0    | 238   | 18                                      | 11   | 4    | 0    | 33    | 210                         | 735  | 22   | 7    | 974   | 8                           | 611  | 97   | 2    | 718   | 1963                         |
| 7:30 - 8:30 | 95                                       | 9    | 169  | 0    | 273   | 22                                      | 7    | 7    | 0    | 36    | 223                         | 720  | 26   | 4    | 973   | 8                           | 734  | 134  | 3    | 879   | 2161                         |
| 7:45 - 8:45 | 87                                       | 13   | 166  | 0    | 266   | 28                                      | 2    | 7    | 0    | 37    | 255                         | 573  | 28   | 1    | 857   | 14                          | 755  | 135  | 5    | 909   | 2069                         |
| 8:00 - 9:00 | 86                                       | 6    | 161  | 0    | 253   | 27                                      | 2    | 3    | 0    | 32    | 269                         | 530  | 50   | 5    | 854   | 25                          | 677  | 129  | 4    | 835   | 1974                         |
| PEAK HOUR   |                                          |      |      |      |       |                                         |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                              |
| 7:30 - 8:30 | 95                                       | 9    | 169  | 0    | 273   | 22                                      | 7    | 7    | 0    | 36    | 223                         | 720  | 26   | 4    | 973   | 8                           | 734  | 134  | 3    | 879   | 2161                         |
| PM          |                                          |      |      |      |       |                                         |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                              |
| 4:00 - 4:15 | 41                                       | 0    | 90   | 0    | 131   | 13                                      | 0    | 7    | 0    | 20    | 62                          | 107  | 8    | 1    | 178   | 2                           | 158  | 52   | 0    | 212   | 541                          |
| 4:15 - 4:30 | 39                                       | 0    | 80   | 0    | 119   | 9                                       | 1    | 5    | 0    | 15    | 64                          | 164  | 3    | 0    | 231   | 1                           | 132  | 33   | 0    | 166   | 531                          |
| 4:30 - 4:45 | 46                                       | 10   | 91   | 0    | 147   | 18                                      | 0    | 8    | 0    | 26    | 70                          | 131  | 6    | 0    | 207   | 0                           | 143  | 29   | 1    | 173   | 553                          |
| 4:45 - 5:00 | 44                                       | 0    | 82   | 0    | 126   | 6                                       | 5    | 3    | 0    | 14    | 89                          | 157  | 11   | 2    | 259   | 3                           | 112  | 32   | 0    | 147   | 546                          |
| 5:00 - 5:15 | 40                                       | 2    | 95   | 0    | 137   | 15                                      | 3    | 6    | 0    | 24    | 65                          | 142  | 6    | 0    | 213   | 3                           | 116  | 35   | 0    | 154   | 528                          |
| 5:15 - 5:30 | 37                                       | 3    | 87   | 0    | 127   | 20                                      | 6    | 4    | 0    | 30    | 74                          | 169  | 11   | 0    | 254   | 2                           | 124  | 31   | 0    | 157   | 568                          |
| 5:30 - 5:45 | 33                                       | 4    | 84   | 0    | 121   | 8                                       | 4    | 3    | 0    | 15    | 69                          | 156  | 10   | 0    | 235   | 0                           | 126  | 34   | 0    | 160   | 531                          |
| 5:45 - 6:00 | 34                                       | 7    | 61   | 0    | 102   | 9                                       | 1    | 3    | 0    | 13    | 79                          | 157  | 10   | 0    | 246   | 2                           | 81   | 30   | 0    | 113   | 474                          |
| 2 Hr Totals | 314                                      | 26   | 670  | 0    | 1010  | 98                                      | 20   | 39   | 0    | 157   | 572                         | 1183 | 65   | 3    | 1823  | 13                          | 992  | 276  | 1    | 1282  | 4272                         |
| 1 Hr Totals |                                          |      |      |      |       |                                         |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                              |
| 4:00 - 5:00 | 170                                      | 10   | 343  | 0    | 523   | 46                                      | 6    | 23   | 0    | 75    | 285                         | 559  | 28   | 3    | 875   | 6                           | 545  | 146  | 1    | 698   | 2171                         |
| 4:15 - 5:15 | 169                                      | 12   | 348  | 0    | 529   | 48                                      | 9    | 22   | 0    | 79    | 288                         | 594  | 26   | 2    | 910   | 7                           | 503  | 129  | 1    | 640   | 2158                         |
| 4:30 - 5:30 | 167                                      | 15   | 355  | 0    | 537   | 59                                      | 14   | 21   | 0    | 94    | 298                         | 599  | 34   | 2    | 933   | 8                           | 495  | 127  | 1    | 631   | 2195                         |
| 4:45 - 5:45 | 154                                      | 9    | 348  | 0    | 511   | 49                                      | 18   | 16   | 0    | 83    | 297                         | 624  | 38   | 2    | 961   | 8                           | 478  | 132  | 0    | 618   | 2173                         |
| 5:00 - 6:00 | 144                                      | 16   | 327  | 0    | 487   | 52                                      | 14   | 16   | 0    | 82    | 287                         | 624  | 37   | 0    | 948   | 7                           | 447  | 130  | 0    | 584   | 2101                         |
| PEAK HOUR   |                                          |      |      |      |       |                                         |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                              |
| 4:30 - 5:30 | 167                                      | 15   | 355  | 0    | 537   | 59                                      | 14   | 21   | 0    | 94    | 298                         | 599  | 34   | 2    | 933   | 8                           | 495  | 127  | 1    | 631   | 2195                         |



# PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: MD 216  
 and: Westside Boulevard - Old Columbia Road  
 Location: Howard County, Maryland

Counted by: VCU  
 Date: November 19, 2025  
 Weather: Cold/Cloudy  
 Entered by: CP

Wednesday  
 Star Rating: 4



| TIME          | NORTH LEG<br>Westside Boulevard |          | SOUTH LEG<br>Old Columbia Road |          |
|---------------|---------------------------------|----------|--------------------------------|----------|
|               | Pedestrians                     | Bicycles | Pedestrians                    | Bicycles |
| <b>AM</b>     |                                 |          |                                |          |
| 7:00 - 7:15   | 0                               | 0        | 0                              | 0        |
| 7:15 - 7:30   | 0                               | 0        | 0                              | 0        |
| 7:30 - 7:45   | 0                               | 0        | 0                              | 0        |
| 7:45 - 8:00   | 0                               | 0        | 0                              | 0        |
| 8:00 - 8:15   | 0                               | 0        | 0                              | 0        |
| 8:15 - 8:30   | 0                               | 0        | 0                              | 0        |
| 8:30 - 8:45   | 0                               | 0        | 0                              | 0        |
| 8:45 - 9:00   | 0                               | 0        | 0                              | 0        |
| <b>TOTALS</b> | 0                               | 0        | 0                              | 0        |
| <b>PM</b>     |                                 |          |                                |          |
| 4:00 - 4:15   | 2                               | 0        | 0                              | 0        |
| 4:15 - 4:30   | 0                               | 0        | 0                              | 0        |
| 4:30 - 4:45   | 1                               | 0        | 0                              | 0        |
| 4:45 - 5:00   | 0                               | 0        | 0                              | 0        |
| 5:00 - 5:15   | 1                               | 0        | 0                              | 0        |
| 5:15 - 5:30   | 1                               | 0        | 0                              | 0        |
| 5:30 - 5:45   | 1                               | 0        | 0                              | 0        |
| 5:45 - 6:00   | 0                               | 0        | 0                              | 0        |
| <b>TOTALS</b> | 6                               | 0        | 0                              | 0        |
|               | EAST LEG<br>MD 216              |          | WEST LEG<br>MD 216             |          |
|               | Pedestrians                     | Bicycles | Pedestrians                    | Bicycles |
| <b>AM</b>     |                                 |          |                                |          |
| 7:00 - 7:15   | 0                               | 0        | 0                              | 0        |
| 7:15 - 7:30   | 0                               | 0        | 1                              | 0        |
| 7:30 - 7:45   | 0                               | 0        | 0                              | 0        |
| 7:45 - 8:00   | 1                               | 0        | 0                              | 0        |
| 8:00 - 8:15   | 0                               | 0        | 0                              | 0        |
| 8:15 - 8:30   | 2                               | 0        | 1                              | 0        |
| 8:30 - 8:45   | 0                               | 0        | 0                              | 0        |
| 8:45 - 9:00   | 0                               | 0        | 1                              | 0        |
| <b>TOTALS</b> | 3                               | 0        | 3                              | 0        |
| <b>PM</b>     |                                 |          |                                |          |
| 4:00 - 4:15   | 0                               | 0        | 0                              | 0        |
| 4:15 - 4:30   | 0                               | 0        | 0                              | 0        |
| 4:30 - 4:45   | 2                               | 0        | 0                              | 0        |
| 4:45 - 5:00   | 2                               | 0        | 0                              | 0        |
| 5:00 - 5:15   | 0                               | 0        | 0                              | 0        |
| 5:15 - 5:30   | 0                               | 0        | 0                              | 0        |
| 5:30 - 5:45   | 0                               | 0        | 0                              | 0        |
| 5:45 - 6:00   | 0                               | 0        | 0                              | 0        |
| <b>TOTALS</b> | 4                               | 0        | 0                              | 0        |



# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 216  
and: Maple Lawn Boulevard  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: Maple Lawn Boulevard |      |      |      |       | TRAFFIC FROM SOUTH<br>on: |      |      |      |       | TRAFFIC FROM EAST<br>on: MD 216 |      |      |      |       | TRAFFIC FROM WEST<br>on: MD 216 |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|------------------------------------------------|------|------|------|-------|---------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                          | THRU | LEFT | U-TN | TOTAL | RIGHT                     | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL |                              |
|             |                                                |      |      |      |       |                           |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| AM          |                                                |      |      |      |       |                           |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 7:00 - 7:15 | 12                                             | 0    | 43   | 0    | 55    | 0                         | 0    | 0    | 0    | 0     | 42                              | 123  | 0    | 0    | 165   | 0                               | 103  | 8    | 1    | 112   | 332                          |
| 7:15 - 7:30 | 33                                             | 0    | 41   | 0    | 74    | 0                         | 0    | 0    | 0    | 0     | 72                              | 225  | 0    | 0    | 297   | 0                               | 137  | 11   | 3    | 151   | 522                          |
| 7:30 - 7:45 | 49                                             | 0    | 69   | 0    | 118   | 0                         | 0    | 0    | 0    | 0     | 99                              | 294  | 0    | 4    | 397   | 0                               | 206  | 22   | 0    | 228   | 743                          |
| 7:45 - 8:00 | 24                                             | 0    | 63   | 0    | 87    | 0                         | 0    | 0    | 0    | 0     | 91                              | 184  | 0    | 1    | 276   | 0                               | 231  | 33   | 0    | 264   | 627                          |
| 8:00 - 8:15 | 71                                             | 0    | 51   | 0    | 122   | 0                         | 0    | 0    | 0    | 0     | 89                              | 161  | 0    | 2    | 252   | 0                               | 158  | 34   | 0    | 192   | 566                          |
| 8:15 - 8:30 | 61                                             | 0    | 49   | 0    | 110   | 0                         | 0    | 0    | 0    | 0     | 102                             | 156  | 0    | 2    | 260   | 0                               | 238  | 63   | 0    | 301   | 671                          |
| 8:30 - 8:45 | 22                                             | 0    | 62   | 0    | 84    | 0                         | 0    | 0    | 0    | 0     | 143                             | 179  | 0    | 0    | 322   | 0                               | 210  | 29   | 1    | 240   | 646                          |
| 8:45 - 9:00 | 25                                             | 0    | 47   | 0    | 72    | 0                         | 0    | 0    | 0    | 0     | 142                             | 194  | 0    | 3    | 339   | 0                               | 164  | 30   | 0    | 194   | 605                          |
| 2 Hr Totals | 297                                            | 0    | 425  | 0    | 722   | 0                         | 0    | 0    | 0    | 0     | 780                             | 1516 | 0    | 12   | 2308  | 0                               | 1447 | 230  | 5    | 1682  | 4712                         |
| 1 Hr Totals |                                                |      |      |      |       |                           |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 7:00 - 8:00 | 118                                            | 0    | 216  | 0    | 334   | 0                         | 0    | 0    | 0    | 0     | 304                             | 826  | 0    | 5    | 1135  | 0                               | 677  | 74   | 4    | 755   | 2224                         |
| 7:15 - 8:15 | 177                                            | 0    | 224  | 0    | 401   | 0                         | 0    | 0    | 0    | 0     | 351                             | 864  | 0    | 7    | 1222  | 0                               | 732  | 100  | 3    | 835   | 2458                         |
| 7:30 - 8:30 | 205                                            | 0    | 232  | 0    | 437   | 0                         | 0    | 0    | 0    | 0     | 381                             | 795  | 0    | 9    | 1185  | 0                               | 833  | 152  | 0    | 985   | 2607                         |
| 7:45 - 8:45 | 178                                            | 0    | 225  | 0    | 403   | 0                         | 0    | 0    | 0    | 0     | 425                             | 680  | 0    | 5    | 1110  | 0                               | 837  | 159  | 1    | 997   | 2510                         |
| 8:00 - 9:00 | 179                                            | 0    | 209  | 0    | 388   | 0                         | 0    | 0    | 0    | 0     | 476                             | 690  | 0    | 7    | 1173  | 0                               | 770  | 156  | 1    | 927   | 2488                         |
| PEAK HOUR   | 7:30 - 8:30                                    | 205  | 0    | 232  | 0     | 437                       | 0    | 0    | 0    | 0     | 381                             | 795  | 0    | 9    | 1185  | 0                               | 833  | 152  | 0    | 985   | 2607                         |
| PM          |                                                |      |      |      |       |                           |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 4:00 - 4:15 | 21                                             | 0    | 97   | 0    | 118   | 0                         | 0    | 0    | 0    | 0     | 58                              | 160  | 0    | 0    | 218   | 0                               | 226  | 54   | 1    | 281   | 617                          |
| 4:15 - 4:30 | 31                                             | 0    | 88   | 0    | 119   | 0                         | 0    | 0    | 0    | 0     | 62                              | 194  | 0    | 0    | 256   | 0                               | 189  | 33   | 3    | 225   | 600                          |
| 4:30 - 4:45 | 25                                             | 0    | 109  | 0    | 134   | 0                         | 0    | 0    | 0    | 0     | 70                              | 188  | 0    | 0    | 258   | 0                               | 232  | 32   | 1    | 265   | 657                          |
| 4:45 - 5:00 | 26                                             | 0    | 82   | 0    | 108   | 0                         | 0    | 0    | 0    | 0     | 90                              | 233  | 0    | 2    | 325   | 0                               | 184  | 23   | 2    | 209   | 642                          |
| 5:00 - 5:15 | 21                                             | 0    | 144  | 0    | 165   | 0                         | 0    | 0    | 0    | 0     | 97                              | 190  | 0    | 1    | 288   | 0                               | 196  | 26   | 0    | 222   | 675                          |
| 5:15 - 5:30 | 24                                             | 0    | 106  | 0    | 130   | 0                         | 0    | 0    | 0    | 0     | 75                              | 227  | 0    | 6    | 308   | 0                               | 206  | 29   | 0    | 235   | 673                          |
| 5:30 - 5:45 | 32                                             | 0    | 103  | 0    | 135   | 0                         | 0    | 0    | 0    | 0     | 78                              | 197  | 0    | 4    | 279   | 0                               | 199  | 22   | 0    | 221   | 635                          |
| 5:45 - 6:00 | 27                                             | 0    | 67   | 0    | 94    | 0                         | 0    | 0    | 0    | 0     | 81                              | 226  | 0    | 5    | 312   | 0                               | 140  | 20   | 1    | 161   | 567                          |
| 2 Hr Totals | 207                                            | 0    | 796  | 0    | 1003  | 0                         | 0    | 0    | 0    | 0     | 611                             | 1615 | 0    | 18   | 2244  | 0                               | 1572 | 239  | 8    | 1819  | 5066                         |
| 1 Hr Totals |                                                |      |      |      |       |                           |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 4:00 - 5:00 | 103                                            | 0    | 376  | 0    | 479   | 0                         | 0    | 0    | 0    | 0     | 280                             | 775  | 0    | 2    | 1057  | 0                               | 831  | 142  | 7    | 980   | 2516                         |
| 4:15 - 5:15 | 103                                            | 0    | 423  | 0    | 526   | 0                         | 0    | 0    | 0    | 0     | 319                             | 805  | 0    | 3    | 1127  | 0                               | 801  | 114  | 6    | 921   | 2574                         |
| 4:30 - 5:30 | 96                                             | 0    | 441  | 0    | 537   | 0                         | 0    | 0    | 0    | 0     | 332                             | 838  | 0    | 9    | 1179  | 0                               | 818  | 110  | 3    | 931   | 2647                         |
| 4:45 - 5:45 | 103                                            | 0    | 435  | 0    | 538   | 0                         | 0    | 0    | 0    | 0     | 340                             | 847  | 0    | 13   | 1200  | 0                               | 785  | 100  | 2    | 887   | 2625                         |
| 5:00 - 6:00 | 104                                            | 0    | 420  | 0    | 524   | 0                         | 0    | 0    | 0    | 0     | 331                             | 840  | 0    | 16   | 1187  | 0                               | 741  | 97   | 1    | 839   | 2550                         |
| PEAK HOUR   | 4:30 - 5:30                                    | 96   | 0    | 441  | 0     | 537                       | 0    | 0    | 0    | 0     | 332                             | 838  | 0    | 9    | 1179  | 0                               | 818  | 110  | 3    | 931   | 2647                         |

# CARS TURNING MOVEMENT COUNT - SUMMARY

**Intersection of: MD 216  
and: Maple Lawn Boulevard  
Location: Howard County, Maryland**

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

**Wednesday**  
**Star Ralino**



| TIME        | TRAFFIC FROM NORTH<br>on:<br>Maple Lawn Boulevard |      |      |      |       |       | TRAFFIC FROM SOUTH |      |      |       |       |      | TRAFFIC FROM EAST<br>on:<br>MD 216 |      |       |       |      |      | TRAFFIC FROM WEST<br>on:<br>MD 216 |       |      |  |  |  | TOT<br>N + S<br>E + W |
|-------------|---------------------------------------------------|------|------|------|-------|-------|--------------------|------|------|-------|-------|------|------------------------------------|------|-------|-------|------|------|------------------------------------|-------|------|--|--|--|-----------------------|
|             | RIGHT                                             | THRU | LEFT | U-TN | TOTAL | RIGHT | THRU               | LEFT | U-TN | TOTAL | RIGHT | THRU | LEFT                               | U-TN | TOTAL | RIGHT | THRU | LEFT | U-TN                               | TOTAL |      |  |  |  |                       |
| AM          |                                                   |      |      |      |       |       |                    |      |      |       |       |      |                                    |      |       |       |      |      |                                    |       |      |  |  |  |                       |
| 7:00 - 7:15 | 12                                                | 0    | 42   | 0    | 54    | 0     | 0                  | 0    | 0    | 0     | 41    | 118  | 0                                  | 0    | 159   | 0     | 100  | 7    | 1                                  | 108   | 321  |  |  |  |                       |
| 7:15 - 7:30 | 30                                                | 0    | 40   | 0    | 70    | 0     | 0                  | 0    | 0    | 0     | 67    | 207  | 0                                  | 0    | 274   | 0     | 132  | 11   | 2                                  | 145   | 489  |  |  |  |                       |
| 7:30 - 7:45 | 49                                                | 0    | 64   | 0    | 113   | 0     | 0                  | 0    | 0    | 0     | 98    | 271  | 0                                  | 3    | 372   | 0     | 189  | 21   | 0                                  | 210   | 695  |  |  |  |                       |
| 7:45 - 8:00 | 22                                                | 0    | 60   | 0    | 82    | 0     | 0                  | 0    | 0    | 0     | 90    | 178  | 0                                  | 1    | 269   | 0     | 218  | 32   | 0                                  | 250   | 601  |  |  |  |                       |
| 8:00 - 8:15 | 71                                                | 0    | 50   | 0    | 121   | 0     | 0                  | 0    | 0    | 0     | 88    | 152  | 0                                  | 2    | 242   | 0     | 148  | 32   | 0                                  | 180   | 543  |  |  |  |                       |
| 8:15 - 8:30 | 59                                                | 0    | 48   | 0    | 107   | 0     | 0                  | 0    | 0    | 0     | 101   | 152  | 0                                  | 2    | 255   | 0     | 222  | 63   | 0                                  | 285   | 647  |  |  |  |                       |
| 8:30 - 8:45 | 22                                                | 0    | 62   | 0    | 84    | 0     | 0                  | 0    | 0    | 0     | 141   | 171  | 0                                  | 3    | 312   | 0     | 202  | 29   | 1                                  | 232   | 628  |  |  |  |                       |
| 8:45 - 9:00 | 25                                                | 0    | 47   | 0    | 72    | 0     | 0                  | 0    | 0    | 0     | 141   | 189  | 0                                  | 2    | 333   | 0     | 154  | 30   | 0                                  | 184   | 589  |  |  |  |                       |
| 2 Hr Totals | 280                                               | 0    | 413  | 0    | 703   | 0     | 0                  | 0    | 0    | 0     | 767   | 1438 | 0                                  | 11   | 2216  | 0     | 1365 | 225  | 4                                  | 1594  | 4513 |  |  |  |                       |
| 1 Hr Totals |                                                   |      |      |      |       |       |                    |      |      |       |       |      |                                    |      |       |       |      |      |                                    |       |      |  |  |  |                       |
| 7:00 - 8:00 | 113                                               | 0    | 206  | 0    | 319   | 0     | 0                  | 0    | 0    | 0     | 296   | 774  | 0                                  | 4    | 1074  | 0     | 639  | 71   | 3                                  | 713   | 2106 |  |  |  |                       |
| 7:15 - 8:15 | 172                                               | 0    | 214  | 0    | 386   | 0     | 0                  | 0    | 0    | 0     | 343   | 808  | 0                                  | 6    | 1157  | 0     | 687  | 96   | 2                                  | 785   | 2328 |  |  |  |                       |
| 7:30 - 8:30 | 201                                               | 0    | 222  | 0    | 423   | 0     | 0                  | 0    | 0    | 0     | 377   | 753  | 0                                  | 8    | 1138  | 0     | 777  | 148  | 0                                  | 925   | 2466 |  |  |  |                       |
| 7:45 - 8:45 | 174                                               | 0    | 220  | 0    | 394   | 0     | 0                  | 0    | 0    | 0     | 420   | 653  | 0                                  | 5    | 1078  | 0     | 790  | 156  | 1                                  | 947   | 2419 |  |  |  |                       |
| 8:00 - 9:00 | 177                                               | 0    | 207  | 0    | 384   | 0     | 0                  | 0    | 0    | 0     | 471   | 664  | 0                                  | 7    | 1142  | 0     | 726  | 154  | 1                                  | 881   | 2407 |  |  |  |                       |
| PEAK HOUR   |                                                   |      |      |      |       |       |                    |      |      |       |       |      |                                    |      |       |       |      |      |                                    |       |      |  |  |  |                       |
| 7:30 - 8:30 | 201                                               | 0    | 222  | 0    | 423   | 0     | 0                  | 0    | 0    | 0     | 377   | 753  | 0                                  | 8    | 1138  | 0     | 777  | 148  | 0                                  | 925   | 2466 |  |  |  |                       |
| PM          |                                                   |      |      |      |       |       |                    |      |      |       |       |      |                                    |      |       |       |      |      |                                    |       |      |  |  |  |                       |
| 4:00 - 4:15 | 20                                                | 0    | 96   | 0    | 116   | 0     | 0                  | 0    | 0    | 0     | 56    | 156  | 0                                  | 0    | 212   | 0     | 216  | 50   | 1                                  | 267   | 595  |  |  |  |                       |
| 4:15 - 4:30 | 31                                                | 0    | 86   | 0    | 117   | 0     | 0                  | 0    | 0    | 0     | 62    | 191  | 0                                  | 0    | 253   | 0     | 182  | 32   | 3                                  | 217   | 587  |  |  |  |                       |
| 4:30 - 4:45 | 25                                                | 0    | 109  | 0    | 134   | 0     | 0                  | 0    | 0    | 0     | 70    | 184  | 0                                  | 0    | 254   | 0     | 224  | 32   | 1                                  | 257   | 645  |  |  |  |                       |
| 4:45 - 5:00 | 26                                                | 0    | 81   | 0    | 107   | 0     | 0                  | 0    | 0    | 0     | 90    | 230  | 0                                  | 2    | 322   | 0     | 193  | 22   | 2                                  | 207   | 636  |  |  |  |                       |
| 5:00 - 5:15 | 21                                                | 0    | 144  | 0    | 165   | 0     | 0                  | 0    | 0    | 0     | 97    | 189  | 0                                  | 1    | 287   | 0     | 182  | 26   | 0                                  | 218   | 670  |  |  |  |                       |
| 5:15 - 5:30 | 24                                                | 0    | 104  | 0    | 128   | 0     | 0                  | 0    | 0    | 0     | 75    | 225  | 0                                  | 6    | 306   | 0     | 201  | 29   | 0                                  | 230   | 664  |  |  |  |                       |
| 5:30 - 5:45 | 32                                                | 0    | 103  | 0    | 135   | 0     | 0                  | 0    | 0    | 0     | 78    | 196  | 0                                  | 4    | 278   | 0     | 197  | 22   | 0                                  | 219   | 612  |  |  |  |                       |
| 5:45 - 6:00 | 27                                                | 0    | 67   | 0    | 94    | 0     | 0                  | 0    | 0    | 0     | 81    | 224  | 0                                  | 5    | 310   | 0     | 138  | 20   | 1                                  | 159   | 563  |  |  |  |                       |
| 2 Hr Totals | 206                                               | 0    | 790  | 0    | 996   | 0     | 0                  | 0    | 0    | 0     | 609   | 1595 | 0                                  | 18   | 2222  | 0     | 1533 | 233  | 8                                  | 1774  | 4992 |  |  |  |                       |
| 1 Hr Totals |                                                   |      |      |      |       |       |                    |      |      |       |       |      |                                    |      |       |       |      |      |                                    |       |      |  |  |  |                       |
| 4:00 - 5:00 | 102                                               | 0    | 372  | 0    | 474   | 0     | 0                  | 0    | 0    | 0     | 278   | 761  | 0                                  | 2    | 1041  | 0     | 805  | 136  | 7                                  | 948   | 2463 |  |  |  |                       |
| 4:15 - 5:15 | 103                                               | 0    | 420  | 0    | 523   | 0     | 0                  | 0    | 0    | 0     | 319   | 794  | 0                                  | 3    | 1116  | 0     | 781  | 112  | 6                                  | 899   | 2538 |  |  |  |                       |
| 4:30 - 5:30 | 96                                                | 0    | 438  | 0    | 534   | 0     | 0                  | 0    | 0    | 0     | 332   | 826  | 0                                  | 3    | 1169  | 0     | 800  | 109  | 3                                  | 912   | 2615 |  |  |  |                       |
| 4:45 - 5:45 | 103                                               | 0    | 432  | 0    | 535   | 0     | 0                  | 0    | 0    | 0     | 340   | 840  | 0                                  | 13   | 1193  | 0     | 773  | 99   | 2                                  | 874   | 2602 |  |  |  |                       |
| 5:00 - 6:00 | 104                                               | 0    | 418  | 0    | 522   | 0     | 0                  | 0    | 0    | 0     | 331   | 834  | 0                                  | 16   | 1181  | 0     | 728  | 97   | 1                                  | 826   | 2529 |  |  |  |                       |
| PEAK HOUR   |                                                   |      |      |      |       |       |                    |      |      |       |       |      |                                    |      |       |       |      |      |                                    |       |      |  |  |  |                       |
| 4:30 - 5:30 | 96                                                | 0    | 438  | 0    | 534   | 0     | 0                  | 0    | 0    | 0     | 332   | 826  | 0                                  | 9    | 1169  | 0     | 800  | 109  | 3                                  | 912   | 2615 |  |  |  |                       |



# PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

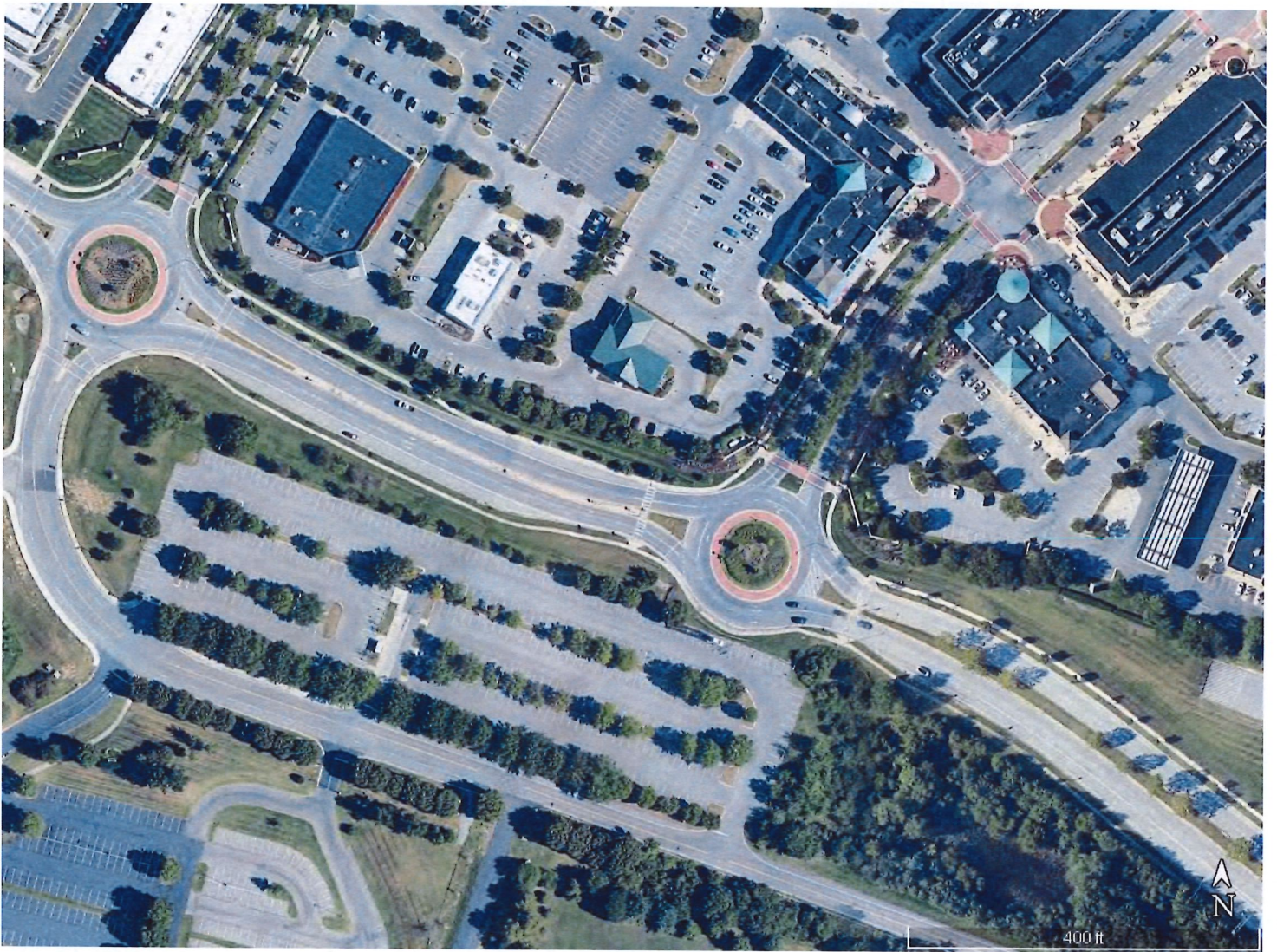
Intersection of: MD 216  
and: Maple Lawn Boulevard  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME          | NORTH LEG<br>Maple Lawn Boulevard |          | SOUTH LEG          |          |
|---------------|-----------------------------------|----------|--------------------|----------|
|               | Pedestrians                       | Bicycles | Pedestrians        | Bicycles |
| <b>AM</b>     |                                   |          |                    |          |
| 7:00 - 7:15   | 0                                 | 0        | 0                  | 0        |
| 7:15 - 7:30   | 0                                 | 0        | 0                  | 0        |
| 7:30 - 7:45   | 0                                 | 0        | 0                  | 0        |
| 7:45 - 8:00   | 0                                 | 0        | 0                  | 0        |
| 8:00 - 8:15   | 0                                 | 0        | 0                  | 0        |
| 8:15 - 8:30   | 0                                 | 0        | 0                  | 0        |
| 8:30 - 8:45   | 0                                 | 0        | 0                  | 0        |
| 8:45 - 9:00   | 0                                 | 0        | 0                  | 0        |
| <b>TOTALS</b> | 0                                 | 0        | 0                  | 0        |
| <b>PM</b>     |                                   |          |                    |          |
| 4:00 - 4:15   | 0                                 | 0        | 0                  | 0        |
| 4:15 - 4:30   | 0                                 | 0        | 0                  | 0        |
| 4:30 - 4:45   | 0                                 | 0        | 0                  | 0        |
| 4:45 - 5:00   | 0                                 | 0        | 0                  | 0        |
| 5:00 - 5:15   | 0                                 | 0        | 0                  | 0        |
| 5:15 - 5:30   | 0                                 | 0        | 0                  | 0        |
| 5:30 - 5:45   | 0                                 | 0        | 0                  | 0        |
| 5:45 - 6:00   | 0                                 | 0        | 0                  | 0        |
| <b>TOTALS</b> | 0                                 | 0        | 0                  | 0        |
|               | EAST LEG<br>MD 216                |          | WEST LEG<br>MD 216 |          |
|               | Pedestrians                       | Bicycles | Pedestrians        | Bicycles |
| <b>AM</b>     |                                   |          |                    |          |
| 7:00 - 7:15   | 0                                 | 0        | 0                  | 0        |
| 7:15 - 7:30   | 0                                 | 0        | 0                  | 0        |
| 7:30 - 7:45   | 0                                 | 0        | 0                  | 0        |
| 7:45 - 8:00   | 0                                 | 0        | 0                  | 0        |
| 8:00 - 8:15   | 0                                 | 0        | 0                  | 0        |
| 8:15 - 8:30   | 0                                 | 0        | 0                  | 0        |
| 8:30 - 8:45   | 0                                 | 0        | 0                  | 0        |
| 8:45 - 9:00   | 0                                 | 0        | 0                  | 0        |
| <b>TOTALS</b> | 0                                 | 0        | 0                  | 0        |
| <b>PM</b>     |                                   |          |                    |          |
| 4:00 - 4:15   | 0                                 | 0        | 0                  | 0        |
| 4:15 - 4:30   | 0                                 | 0        | 0                  | 0        |
| 4:30 - 4:45   | 0                                 | 0        | 0                  | 0        |
| 4:45 - 5:00   | 0                                 | 0        | 0                  | 0        |
| 5:00 - 5:15   | 0                                 | 0        | 0                  | 0        |
| 5:15 - 5:30   | 0                                 | 0        | 0                  | 0        |
| 5:30 - 5:45   | 0                                 | 0        | 0                  | 0        |
| 5:45 - 6:00   | 0                                 | 0        | 0                  | 0        |
| <b>TOTALS</b> | 0                                 | 0        | 0                  | 0        |



# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 216  
and: US 29 SB Ramps - Scaggsville Road  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: Scaggsville Road |      |      |      |       | TRAFFIC FROM SOUTH<br>on: US 29 SB Ramps |      |      |      |       | TRAFFIC FROM EAST<br>on: MD 216 |      |      |      |       | TRAFFIC FROM WEST<br>on: MD 216 |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|--------------------------------------------|------|------|------|-------|------------------------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                      | THRU | LEFT | U-TN | TOTAL | RIGHT                                    | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                            |      |      |      |       |                                          |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 7:00 - 7:15 | 0                                          | 2    | 4    | 0    | 6     | 187                                      | 4    | 61   | 0    | 252   | 5                               | 104  | 47   | 0    | 156   | 26                              | 111  | 6    | 0    | 143   | 557                          |
| 7:15 - 7:30 | 7                                          | 2    | 8    | 0    | 17    | 200                                      | 6    | 85   | 0    | 291   | 5                               | 219  | 46   | 0    | 270   | 38                              | 136  | 3    | 0    | 177   | 755                          |
| 7:30 - 7:45 | 5                                          | 1    | 7    | 0    | 13    | 262                                      | 4    | 70   | 0    | 336   | 8                               | 325  | 40   | 0    | 373   | 33                              | 234  | 3    | 0    | 270   | 999                          |
| 7:45 - 8:00 | 3                                          | 3    | 8    | 0    | 14    | 247                                      | 1    | 60   | 0    | 308   | 9                               | 214  | 33   | 0    | 256   | 58                              | 236  | 8    | 0    | 302   | 880                          |
| 8:00 - 8:15 | 5                                          | 1    | 14   | 0    | 20    | 239                                      | 10   | 63   | 0    | 312   | 10                              | 175  | 45   | 1    | 231   | 35                              | 163  | 3    | 0    | 201   | 764                          |
| 8:15 - 8:30 | 7                                          | 4    | 9    | 0    | 20    | 242                                      | 5    | 64   | 0    | 311   | 6                               | 192  | 25   | 1    | 224   | 43                              | 242  | 5    | 0    | 290   | 845                          |
| 8:30 - 8:45 | 4                                          | 0    | 6    | 0    | 10    | 195                                      | 3    | 80   | 0    | 278   | 12                              | 243  | 52   | 3    | 310   | 51                              | 218  | 5    | 0    | 274   | 872                          |
| 8:45 - 9:00 | 10                                         | 2    | 12   | 0    | 24    | 191                                      | 13   | 94   | 0    | 298   | 12                              | 240  | 40   | 1    | 293   | 43                              | 168  | 4    | 0    | 215   | 830                          |
| 2 Hr Totals | 41                                         | 15   | 68   | 0    | 124   | 1763                                     | 46   | 577  | 0    | 2386  | 67                              | 1712 | 328  | 6    | 2113  | 327                             | 1508 | 37   | 0    | 1872  | 6495                         |
| 1 Hr Totals |                                            |      |      |      |       |                                          |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 7:00 - 8:00 | 15                                         | 8    | 27   | 0    | 50    | 896                                      | 15   | 276  | 0    | 1187  | 27                              | 862  | 166  | 0    | 1055  | 155                             | 717  | 20   | 0    | 892   | 3184                         |
| 7:15 - 8:15 | 20                                         | 7    | 37   | 0    | 64    | 948                                      | 21   | 278  | 0    | 1247  | 32                              | 933  | 164  | 1    | 1130  | 164                             | 769  | 17   | 0    | 950   | 3391                         |
| 7:30 - 8:30 | 20                                         | 9    | 38   | 0    | 67    | 990                                      | 20   | 257  | 0    | 1267  | 33                              | 906  | 143  | 2    | 1084  | 169                             | 875  | 19   | 0    | 1063  | 3481                         |
| 7:45 - 8:45 | 19                                         | 8    | 37   | 0    | 64    | 923                                      | 19   | 267  | 0    | 1209  | 37                              | 824  | 155  | 5    | 1021  | 187                             | 859  | 21   | 0    | 1067  | 3361                         |
| 8:00 - 9:00 | 26                                         | 7    | 41   | 0    | 74    | 867                                      | 31   | 301  | 0    | 1199  | 40                              | 850  | 162  | 6    | 1058  | 172                             | 791  | 17   | 0    | 980   | 3311                         |
| PEAK HOUR   |                                            |      |      |      |       |                                          |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 7:30 - 8:30 | 20                                         | 9    | 38   | 0    | 67    | 990                                      | 20   | 257  | 0    | 1267  | 33                              | 906  | 143  | 2    | 1084  | 169                             | 875  | 19   | 0    | 1063  | 3481                         |
| PM          |                                            |      |      |      |       |                                          |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 4:00 - 4:15 | 7                                          | 1    | 6    | 0    | 14    | 123                                      | 3    | 45   | 0    | 171   | 14                              | 164  | 28   | 0    | 206   | 58                              | 256  | 6    | 1    | 321   | 712                          |
| 4:15 - 4:30 | 3                                          | 0    | 13   | 0    | 16    | 128                                      | 3    | 55   | 0    | 186   | 20                              | 202  | 26   | 4    | 252   | 53                              | 215  | 7    | 0    | 275   | 729                          |
| 4:30 - 4:45 | 8                                          | 6    | 12   | 0    | 26    | 143                                      | 2    | 54   | 0    | 199   | 6                               | 206  | 34   | 0    | 246   | 66                              | 274  | 10   | 0    | 350   | 821                          |
| 4:45 - 5:00 | 6                                          | 0    | 9    | 0    | 15    | 141                                      | 3    | 87   | 0    | 231   | 13                              | 240  | 29   | 1    | 283   | 56                              | 195  | 21   | 0    | 272   | 801                          |
| 5:00 - 5:15 | 12                                         | 2    | 18   | 0    | 32    | 146                                      | 8    | 43   | 0    | 197   | 14                              | 232  | 35   | 0    | 281   | 66                              | 266  | 4    | 0    | 336   | 846                          |
| 5:15 - 5:30 | 11                                         | 0    | 16   | 0    | 27    | 148                                      | 12   | 45   | 0    | 205   | 21                              | 245  | 32   | 1    | 299   | 52                              | 239  | 14   | 0    | 305   | 836                          |
| 5:30 - 5:45 | 12                                         | 9    | 22   | 0    | 43    | 164                                      | 5    | 50   | 0    | 219   | 19                              | 216  | 33   | 0    | 268   | 64                              | 231  | 17   | 0    | 312   | 842                          |
| 5:45 - 6:00 | 17                                         | 3    | 16   | 0    | 36    | 145                                      | 8    | 59   | 0    | 212   | 18                              | 242  | 39   | 0    | 299   | 50                              | 170  | 8    | 0    | 228   | 775                          |
| 2 Hr Totals | 76                                         | 21   | 112  | 0    | 209   | 1138                                     | 44   | 438  | 0    | 1620  | 125                             | 1747 | 256  | 6    | 2134  | 465                             | 1846 | 87   | 1    | 2399  | 6362                         |
| 1 Hr Totals |                                            |      |      |      |       |                                          |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 4:00 - 5:00 | 24                                         | 7    | 40   | 0    | 71    | 535                                      | 11   | 241  | 0    | 787   | 53                              | 812  | 117  | 5    | 987   | 233                             | 940  | 44   | 1    | 1218  | 3063                         |
| 4:15 - 5:15 | 29                                         | 8    | 52   | 0    | 89    | 558                                      | 16   | 239  | 0    | 813   | 53                              | 880  | 124  | 5    | 1062  | 241                             | 950  | 42   | 0    | 1233  | 3197                         |
| 4:30 - 5:30 | 37                                         | 8    | 55   | 0    | 100   | 578                                      | 25   | 229  | 0    | 832   | 54                              | 923  | 130  | 2    | 1109  | 240                             | 974  | 49   | 0    | 1263  | 3304                         |
| 4:45 - 5:45 | 41                                         | 11   | 65   | 0    | 117   | 599                                      | 28   | 225  | 0    | 852   | 67                              | 933  | 129  | 2    | 1131  | 238                             | 931  | 56   | 0    | 1225  | 3325                         |
| 5:00 - 6:00 | 52                                         | 14   | 72   | 0    | 138   | 603                                      | 33   | 197  | 0    | 833   | 72                              | 935  | 139  | 1    | 1147  | 232                             | 906  | 43   | 0    | 1181  | 3299                         |
| PEAK HOUR   |                                            |      |      |      |       |                                          |      |      |      |       |                                 |      |      |      |       |                                 |      |      |      |       |                              |
| 4:45 - 5:45 | 41                                         | 11   | 65   | 0    | 117   | 599                                      | 28   | 225  | 0    | 852   | 67                              | 933  | 129  | 2    | 1131  | 238                             | 931  | 56   | 0    | 1225  | 3325                         |

# CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 216  
 and: US 29 SB Ramps - Scaggsville Road  
 Location: Howard County, Maryland

Counted by: VCU  
 Date: November 19, 2025  
 Weather: Cold/Cloudy  
 Entered by: CP

Wednesday

Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>Scaggsville Road |      |      |      |       | TRAFFIC FROM SOUTH<br>US 29 SB Ramps |      |      |      |       | TRAFFIC FROM EAST<br>MD 216 |      |      |      |       | TRAFFIC FROM WEST<br>MD 216 |      |      |      |       | TOTAL<br>N + S |
|-------------|----------------------------------------|------|------|------|-------|--------------------------------------|------|------|------|-------|-----------------------------|------|------|------|-------|-----------------------------|------|------|------|-------|----------------|
|             | RIGHT                                  | THRU | LEFT | U-TN | TOTAL | RIGHT                                | THRU | LEFT | U-TN | TOTAL | RIGHT                       | THRU | LEFT | U-TN | TOTAL | RIGHT                       | THRU | LEFT | U-TN | TOTAL | E + W          |
| AM          |                                        |      |      |      |       |                                      |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                |
| 7:00 - 7:15 | 0                                      | 2    | 4    | 0    | 6     | 187                                  | 4    | 61   | 0    | 252   | 4                           | 97   | 46   | 0    | 147   | 25                          | 109  | 6    | 0    | 140   | 545            |
| 7:15 - 7:30 | 6                                      | 2    | 8    | 0    | 16    | 195                                  | 5    | 82   | 0    | 282   | 4                           | 200  | 45   | 0    | 249   | 38                          | 131  | 3    | 0    | 172   | 719            |
| 7:30 - 7:45 | 4                                      | 1    | 6    | 0    | 11    | 257                                  | 4    | 65   | 0    | 326   | 8                           | 308  | 40   | 0    | 356   | 31                          | 212  | 3    | 0    | 246   | 939            |
| 7:45 - 8:00 | 3                                      | 3    | 8    | 0    | 14    | 244                                  | 1    | 58   | 0    | 303   | 9                           | 209  | 32   | 0    | 250   | 55                          | 223  | 8    | 0    | 286   | 853            |
| 8:00 - 8:15 | 5                                      | 1    | 14   | 0    | 20    | 232                                  | 10   | 59   | 0    | 301   | 10                          | 169  | 44   | 0    | 223   | 33                          | 153  | 3    | 0    | 189   | 733            |
| 8:15 - 8:30 | 5                                      | 4    | 9    | 0    | 18    | 240                                  | 5    | 63   | 0    | 308   | 6                           | 189  | 25   | 0    | 220   | 41                          | 226  | 5    | 0    | 272   | 818            |
| 8:30 - 8:45 | 4                                      | 0    | 6    | 0    | 10    | 190                                  | 3    | 78   | 0    | 271   | 12                          | 234  | 50   | 3    | 299   | 47                          | 212  | 5    | 0    | 264   | 844            |
| 8:45 - 9:00 | 10                                     | 2    | 9    | 0    | 21    | 184                                  | 13   | 94   | 0    | 291   | 12                          | 235  | 39   | 0    | 286   | 40                          | 162  | 4    | 0    | 206   | 804            |
| 2 Hr Totals | 37                                     | 15   | 64   | 0    | 116   | 1729                                 | 45   | 560  | 0    | 2334  | 65                          | 1641 | 321  | 3    | 2030  | 310                         | 1428 | 37   | 0    | 1775  | 6255           |
| 1 Hr Totals |                                        |      |      |      |       |                                      |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                |
| 7:00 - 8:00 | 13                                     | 8    | 26   | 0    | 47    | 883                                  | 14   | 266  | 0    | 1163  | 25                          | 814  | 163  | 0    | 1002  | 149                         | 675  | 20   | 0    | 844   | 3056           |
| 7:15 - 8:15 | 18                                     | 7    | 36   | 0    | 61    | 928                                  | 20   | 264  | 0    | 1212  | 31                          | 886  | 161  | 0    | 1078  | 157                         | 719  | 17   | 0    | 893   | 3244           |
| 7:30 - 8:30 | 17                                     | 9    | 37   | 0    | 63    | 973                                  | 20   | 245  | 0    | 1238  | 33                          | 875  | 141  | 0    | 1049  | 160                         | 814  | 19   | 0    | 993   | 3343           |
| 7:45 - 8:45 | 17                                     | 8    | 37   | 0    | 62    | 906                                  | 19   | 258  | 0    | 1183  | 37                          | 801  | 151  | 3    | 992   | 176                         | 814  | 21   | 0    | 1011  | 3248           |
| 8:00 - 9:00 | 24                                     | 7    | 38   | 0    | 69    | 846                                  | 31   | 294  | 0    | 1171  | 40                          | 827  | 158  | 3    | 1028  | 161                         | 753  | 17   | 0    | 931   | 3199           |
| PEAK HOUR   |                                        |      |      |      |       |                                      |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                |
| 7:30 - 8:30 | 17                                     | 9    | 37   | 0    | 63    | 973                                  | 20   | 245  | 0    | 1238  | 33                          | 875  | 141  | 0    | 1049  | 160                         | 814  | 19   | 0    | 993   | 3343           |
| PM          |                                        |      |      |      |       |                                      |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                |
| 4:00 - 4:15 | 7                                      | 1    | 6    | 0    | 14    | 121                                  | 3    | 44   | 0    | 168   | 14                          | 160  | 28   | 0    | 202   | 58                          | 244  | 6    | 0    | 308   | 692            |
| 4:15 - 4:30 | 3                                      | 0    | 12   | 0    | 15    | 126                                  | 3    | 55   | 0    | 184   | 20                          | 199  | 26   | 4    | 249   | 53                          | 207  | 7    | 0    | 267   | 715            |
| 4:30 - 4:45 | 8                                      | 6    | 12   | 0    | 26    | 139                                  | 2    | 53   | 0    | 194   | 6                           | 203  | 33   | 0    | 242   | 66                          | 266  | 10   | 0    | 342   | 804            |
| 4:45 - 5:00 | 6                                      | 0    | 9    | 0    | 15    | 139                                  | 3    | 86   | 0    | 228   | 13                          | 239  | 28   | 1    | 281   | 56                          | 193  | 21   | 0    | 270   | 794            |
| 5:00 - 5:15 | 12                                     | 2    | 18   | 0    | 32    | 146                                  | 8    | 43   | 0    | 197   | 14                          | 230  | 35   | 0    | 279   | 66                          | 263  | 4    | 0    | 333   | 841            |
| 5:15 - 5:30 | 11                                     | 0    | 16   | 0    | 27    | 147                                  | 12   | 44   | 0    | 203   | 21                          | 243  | 30   | 1    | 295   | 52                          | 234  | 13   | 0    | 299   | 824            |
| 5:30 - 5:45 | 12                                     | 9    | 21   | 0    | 42    | 161                                  | 5    | 50   | 0    | 216   | 19                          | 215  | 33   | 0    | 267   | 64                          | 229  | 17   | 0    | 310   | 835            |
| 5:45 - 6:00 | 17                                     | 3    | 15   | 0    | 35    | 144                                  | 8    | 59   | 0    | 211   | 18                          | 241  | 39   | 0    | 298   | 50                          | 169  | 8    | 0    | 227   | 771            |
| 2 Hr Totals | 76                                     | 21   | 109  | 0    | 206   | 1123                                 | 44   | 434  | 0    | 1601  | 125                         | 1730 | 252  | 6    | 2113  | 465                         | 1805 | 86   | 0    | 2356  | 6276           |
| 1 Hr Totals |                                        |      |      |      |       |                                      |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                |
| 4:00 - 5:00 | 24                                     | 7    | 39   | 0    | 70    | 525                                  | 11   | 238  | 0    | 774   | 53                          | 801  | 115  | 5    | 974   | 233                         | 910  | 44   | 0    | 1187  | 3005           |
| 4:15 - 5:15 | 29                                     | 8    | 51   | 0    | 88    | 550                                  | 16   | 237  | 0    | 803   | 53                          | 871  | 122  | 5    | 1051  | 241                         | 929  | 42   | 0    | 1212  | 3154           |
| 4:30 - 5:30 | 37                                     | 8    | 55   | 0    | 100   | 571                                  | 25   | 226  | 0    | 822   | 54                          | 915  | 126  | 2    | 1097  | 240                         | 956  | 48   | 0    | 1244  | 3263           |
| 4:45 - 5:45 | 41                                     | 11   | 64   | 0    | 116   | 593                                  | 28   | 223  | 0    | 844   | 67                          | 927  | 126  | 2    | 1122  | 238                         | 919  | 55   | 0    | 1212  | 3294           |
| 5:00 - 6:00 | 52                                     | 14   | 70   | 0    | 136   | 598                                  | 33   | 196  | 0    | 827   | 72                          | 929  | 137  | 1    | 1139  | 232                         | 895  | 42   | 0    | 1169  | 3271           |
| PEAK HOUR   |                                        |      |      |      |       |                                      |      |      |      |       |                             |      |      |      |       |                             |      |      |      |       |                |
| 4:45 - 5:45 | 41                                     | 11   | 64   | 0    | 116   | 593                                  | 28   | 223  | 0    | 844   | 67                          | 927  | 126  | 2    | 1122  | 238                         | 919  | 55   | 0    | 1212  | 3294           |



# PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

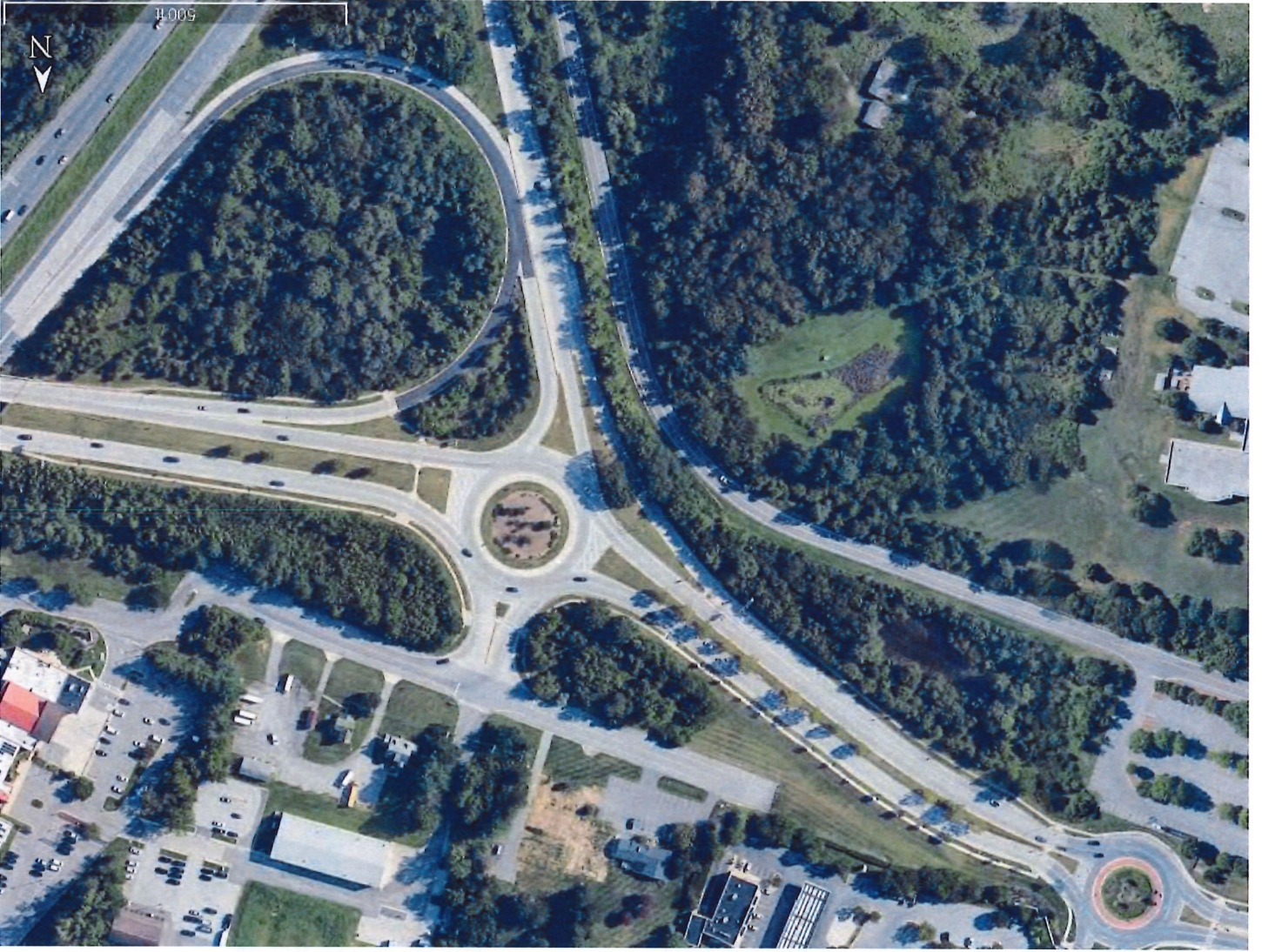
Intersection of: MD 216  
and: US 29 SB Ramps - Scaggsville Road  
Location: Howard County, Maryland

Counted by: VCU  
Date: November 19, 2025  
Weather: Cold/Cloudy  
Entered by: CP

Wednesday  
Star Rating: 4

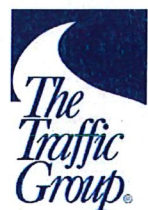


| TIME          | NORTH LEG<br>Scaggsville Road |          | SOUTH LEG<br>US 29 SB Ramps |          |
|---------------|-------------------------------|----------|-----------------------------|----------|
|               | Pedestrians                   | Bicycles | Pedestrians                 | Bicycles |
| <b>AM</b>     |                               |          |                             |          |
| 7:00 - 7:15   | 0                             | 0        | 0                           | 0        |
| 7:15 - 7:30   | 0                             | 1        | 0                           | 0        |
| 7:30 - 7:45   | 0                             | 0        | 0                           | 0        |
| 7:45 - 8:00   | 0                             | 0        | 0                           | 0        |
| 8:00 - 8:15   | 0                             | 0        | 0                           | 0        |
| 8:15 - 8:30   | 1                             | 0        | 0                           | 0        |
| 8:30 - 8:45   | 0                             | 0        | 0                           | 0        |
| 8:45 - 9:00   | 0                             | 0        | 0                           | 0        |
| <b>TOTALS</b> | 1                             | 1        | 0                           | 0        |
| <b>PM</b>     |                               |          |                             |          |
| 4:00 - 4:15   | 1                             | 0        | 0                           | 0        |
| 4:15 - 4:30   | 1                             | 0        | 0                           | 0        |
| 4:30 - 4:45   | 0                             | 1        | 0                           | 0        |
| 4:45 - 5:00   | 0                             | 0        | 0                           | 0        |
| 5:00 - 5:15   | 0                             | 0        | 0                           | 0        |
| 5:15 - 5:30   | 0                             | 0        | 0                           | 0        |
| 5:30 - 5:45   | 0                             | 1        | 0                           | 0        |
| 5:45 - 6:00   | 0                             | 0        | 0                           | 0        |
| <b>TOTALS</b> | 2                             | 2        | 0                           | 0        |
|               | EAST LEG<br>MD 216            |          | WEST LEG<br>MD 216          |          |
|               | Pedestrians                   | Bicycles | Pedestrians                 | Bicycles |
| <b>AM</b>     |                               |          |                             |          |
| 7:00 - 7:15   | 0                             | 0        | 0                           | 0        |
| 7:15 - 7:30   | 0                             | 0        | 0                           | 0        |
| 7:30 - 7:45   | 0                             | 0        | 0                           | 0        |
| 7:45 - 8:00   | 0                             | 0        | 0                           | 0        |
| 8:00 - 8:15   | 0                             | 0        | 0                           | 0        |
| 8:15 - 8:30   | 0                             | 0        | 0                           | 0        |
| 8:30 - 8:45   | 0                             | 0        | 0                           | 0        |
| 8:45 - 9:00   | 0                             | 0        | 0                           | 0        |
| <b>TOTALS</b> | 0                             | 0        | 0                           | 0        |
| <b>PM</b>     |                               |          |                             |          |
| 4:00 - 4:15   | 0                             | 0        | 0                           | 0        |
| 4:15 - 4:30   | 0                             | 0        | 0                           | 0        |
| 4:30 - 4:45   | 0                             | 0        | 0                           | 0        |
| 4:45 - 5:00   | 0                             | 0        | 0                           | 0        |
| 5:00 - 5:15   | 0                             | 0        | 0                           | 0        |
| 5:15 - 5:30   | 0                             | 0        | 0                           | 0        |
| 5:30 - 5:45   | 0                             | 0        | 0                           | 0        |
| 5:45 - 6:00   | 0                             | 0        | 0                           | 0        |
| <b>TOTALS</b> | 0                             | 0        | 0                           | 0        |



## APPENDIX B

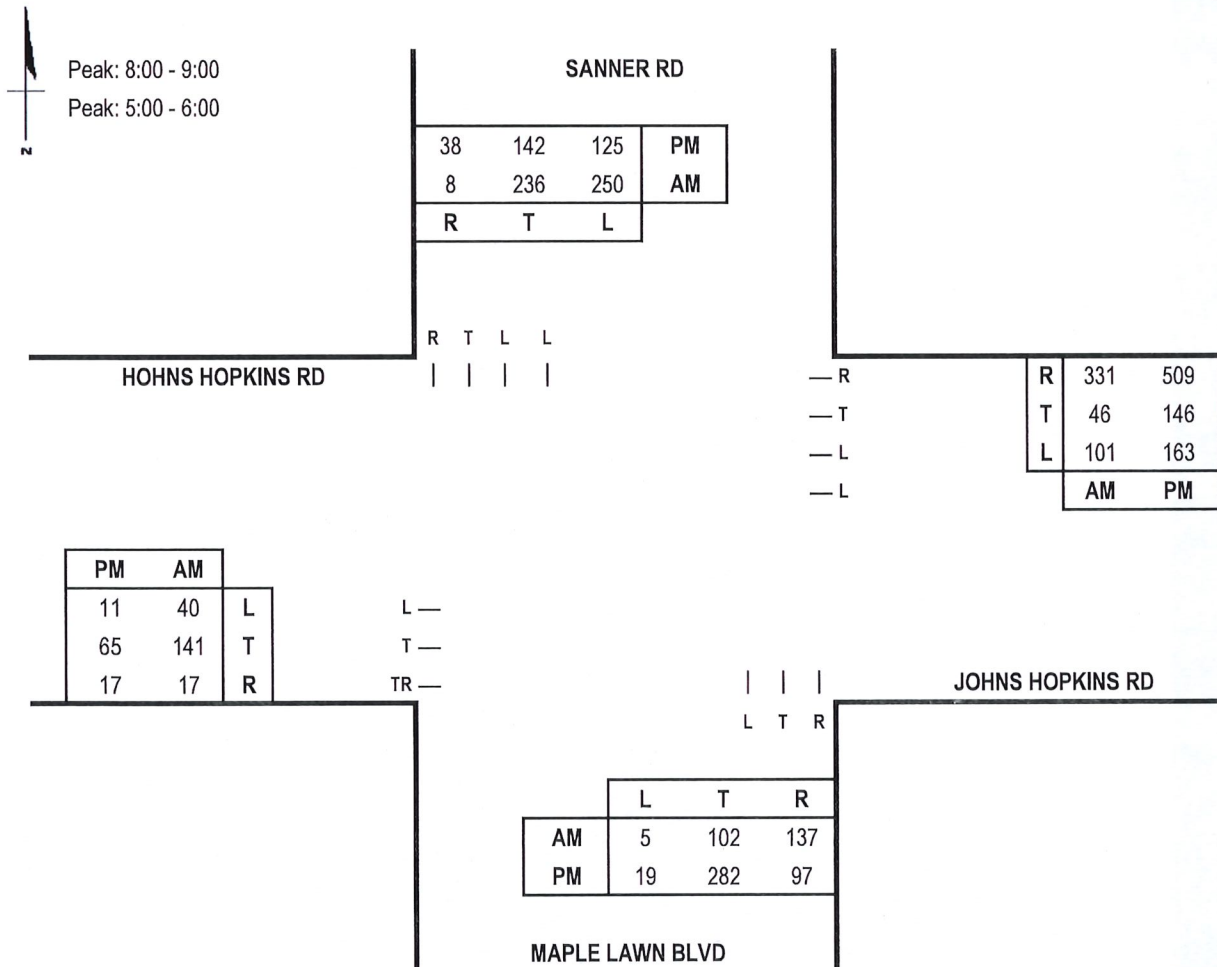
### Capacity Analysis Worksheets





## CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

**E/W Road:** Johns Hopkins Rd/Johns Hopkins Rd    **Date of Count:** 11/19/2025  
**N/S Road:** Sanner Rd/Maple Lawn Blvd    **Day of Count:** Wednesday  
**Conditions:** Existing Traffic    **Analyst:** Richard Huang



### Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| NB                       | 102          | 1.00  | 102     | 250              | 0.60  | 150     |
| SB                       | 236          | 1.00  | 236     | 5                | 1.00  | 5       |
| EB                       | 158          | 0.55  | 87      | 101              | 0.60  | 61      |
| WB                       | 181          | 1.00  | 181     | 40               | 1.00  | 40      |
| CLV TOTAL=               |              |       |         |                  |       | 473     |
| Level of Service (LOS) = |              |       |         |                  |       | A       |

AM V/C = 0.3

| Evening Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| NB                       | 282          | 1.00  | 282     | 125              | 0.60  | 75      |
| SB                       | 142          | 1.00  | 142     | 19               | 1.00  | 19      |
| EB                       | 82           | 0.55  | 45      | 163              | 0.60  | 98      |
| WB                       | 434          | 1.00  | 434     | 11               | 1.00  | 11      |
| CLV TOTAL=               |              |       |         |                  |       | 802     |
| Level of Service (LOS) = |              |       |         |                  |       | A       |

PM V/C = 0.5



## CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

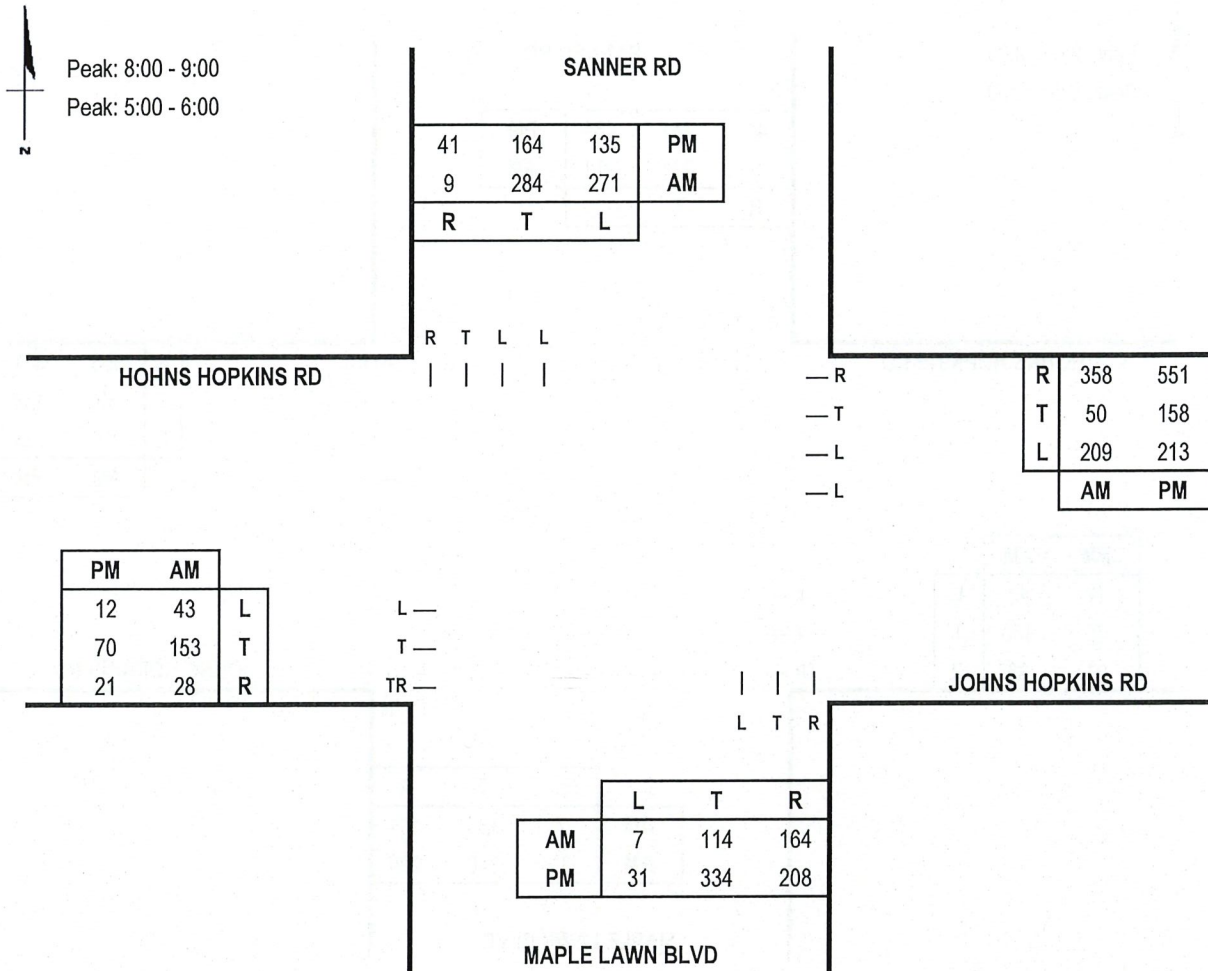
**E/W Road:** Johns Hopkins Rd/Johns Hopkins Rd **Date of Count:** 11/19/2025

**N/S Road:** Sanner Rd/Maple Lawn Blvd

**Day of Count:** Wednesday

**Conditions:** 2030 Background Traffic

**Analyst:** Richard Huang



### Capacity Analysis

| Morning Peak Hour       |              |       |         |                  |       |         |     |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | AM  |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                      | 114          | 1.00  | 114     | 271              | 0.60  | 163     | 291 |
| SB                      | 284          | 1.00  | 284     | 7                | 1.00  | 7       |     |
| EB                      | 181          | 0.55  | 100     | 209              | 0.60  | 125     | 238 |
| WB                      | 195          | 1.00  | 195     | 43               | 1.00  | 43      |     |
| CLV TOTAL=              |              |       |         |                  |       |         | 529 |
| Level of Service (LOS)= |              |       |         |                  |       |         | A   |

AM V/C = 0.33

| Evening Peak Hour       |              |       |         |                  |       |         |     |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | PM  |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                      | 334          | 1.00  | 334     | 135              | 0.60  | 81      | 415 |
| SB                      | 164          | 1.00  | 164     | 31               | 1.00  | 31      |     |
| EB                      | 91           | 0.55  | 50      | 213              | 0.60  | 128     | 482 |
| WB                      | 470          | 1.00  | 470     | 12               | 1.00  | 12      |     |
| CLV TOTAL=              |              |       |         |                  |       |         | 897 |
| Level of Service (LOS)= |              |       |         |                  |       |         | A   |

PM V/C = 0.56

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: Johns Hopkins Rd/Johns Hopkins Rd

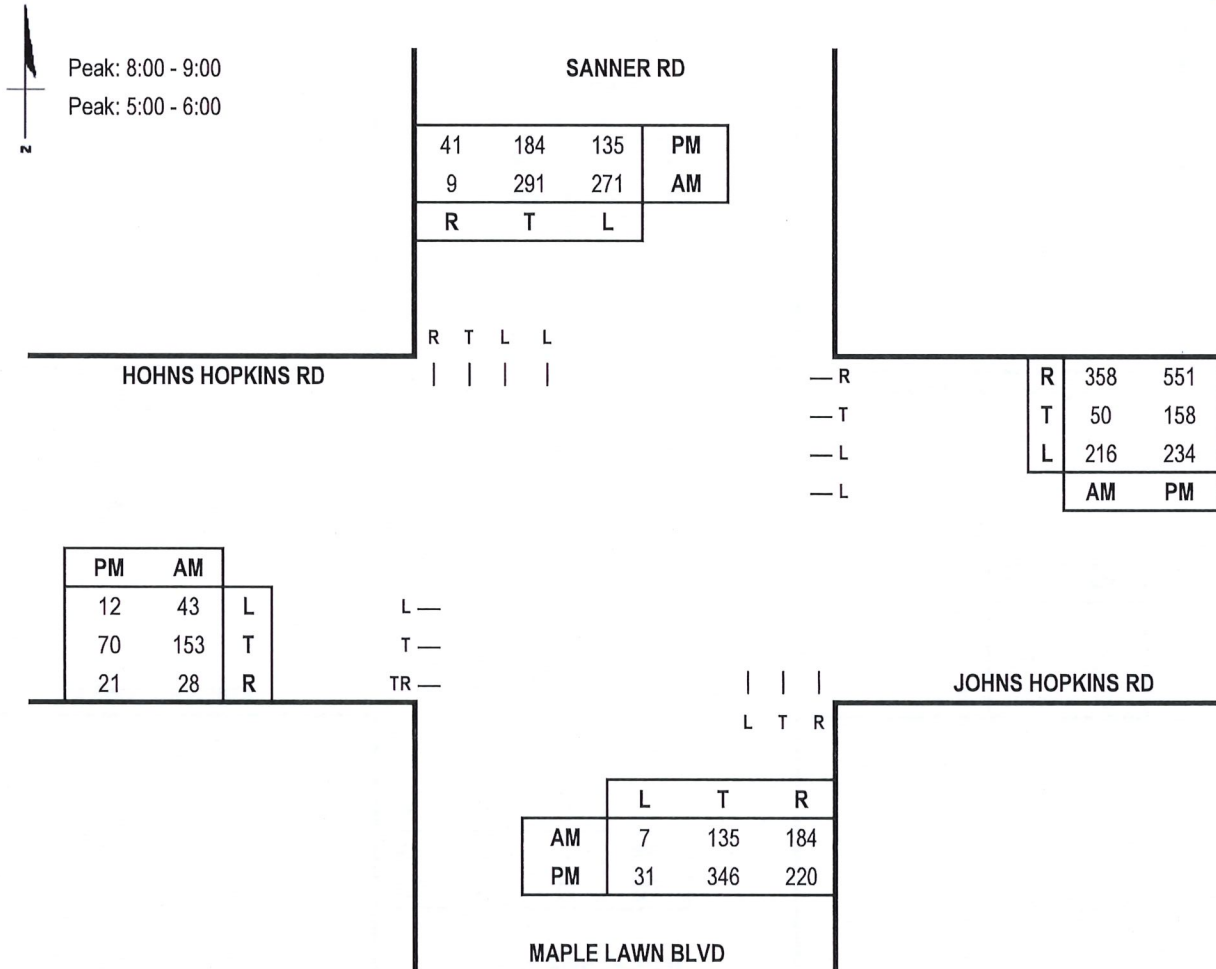
Date of Count: 11/19/2025

N/S Road: Sanner Rd/Maple Lawn Blvd

Day of Count: Wednesday

Conditions: 2030 Total Traffic

Analyst: Richard Huang



## Capacity Analysis

| Morning Peak Hour       |              |       |         |                  |       |         |     |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | AM  |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                      | 135          | 1.00  | 135     | 271              | 0.60  | 163     | 298 |
| SB                      | 291          | 1.00  | 291     | 7                | 1.00  | 7       |     |
| EB                      | 181          | 0.55  | 100     | 216              | 0.60  | 130     | 238 |
| WB                      | 195          | 1.00  | 195     | 43               | 1.00  | 43      |     |
| CLV TOTAL=              |              |       |         |                  |       |         | 536 |
| Level of Service (LOS)= |              |       |         |                  |       |         | A   |

AM V/C = 0.34

| Evening Peak Hour       |              |       |         |                  |       |         |     |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | PM  |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                      | 346          | 1.00  | 346     | 135              | 0.60  | 81      | 427 |
| SB                      | 184          | 1.00  | 184     | 31               | 1.00  | 31      |     |
| EB                      | 91           | 0.55  | 50      | 234              | 0.60  | 140     | 482 |
| WB                      | 470          | 1.00  | 470     | 12               | 1.00  | 12      |     |
| CLV TOTAL=              |              |       |         |                  |       |         | 909 |
| Level of Service (LOS)= |              |       |         |                  |       |         | A   |

Level of Service (LOS)=

PM V/C = 0.57

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 216

N/S Road: Lime Kiln Rd

Conditions: Existing Traffic

Date of Count: 11/19/2025

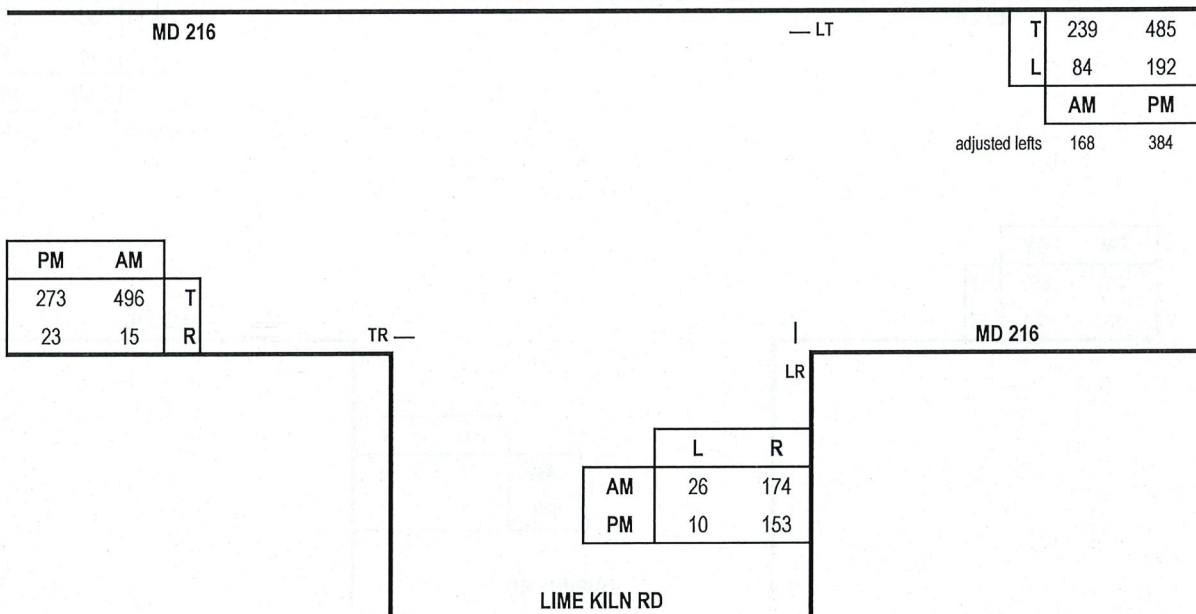
Day of Count: Wednesday

Analyst: Richard Huang



Peak: 7:45 - 8:45

Peak: 4:00 - 5:00



## Capacity Analysis

| Morning Peak Hour       |              |       |         |                  |       |         |
|-------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| NB                      | 200          | 1.00  | 200     |                  |       |         |
| EB                      | 511          | 1.00  | 511     | 84               | 1.00  | 84      |
| WB                      | 407          | 1.00  | 407     |                  |       |         |
| CLV TOTAL=              |              |       |         |                  |       | 795     |
| Level of Service (LOS)= |              |       |         |                  |       | A       |
| CLV V/C = 0.5           |              |       |         |                  |       |         |

| Evening Peak Hour       |              |       |         |                  |       |         |
|-------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| NB                      | 163          | 1.00  | 163     |                  |       |         |
| EB                      | 296          | 1.00  | 296     | 192              | 1.00  | 192     |
| WB                      | 869          | 1.00  | 869     |                  |       |         |
| CLV TOTAL=              |              |       |         |                  |       | 1,032   |
| Level of Service (LOS)= |              |       |         |                  |       | B       |
| CLV V/C = 0.65          |              |       |         |                  |       |         |

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

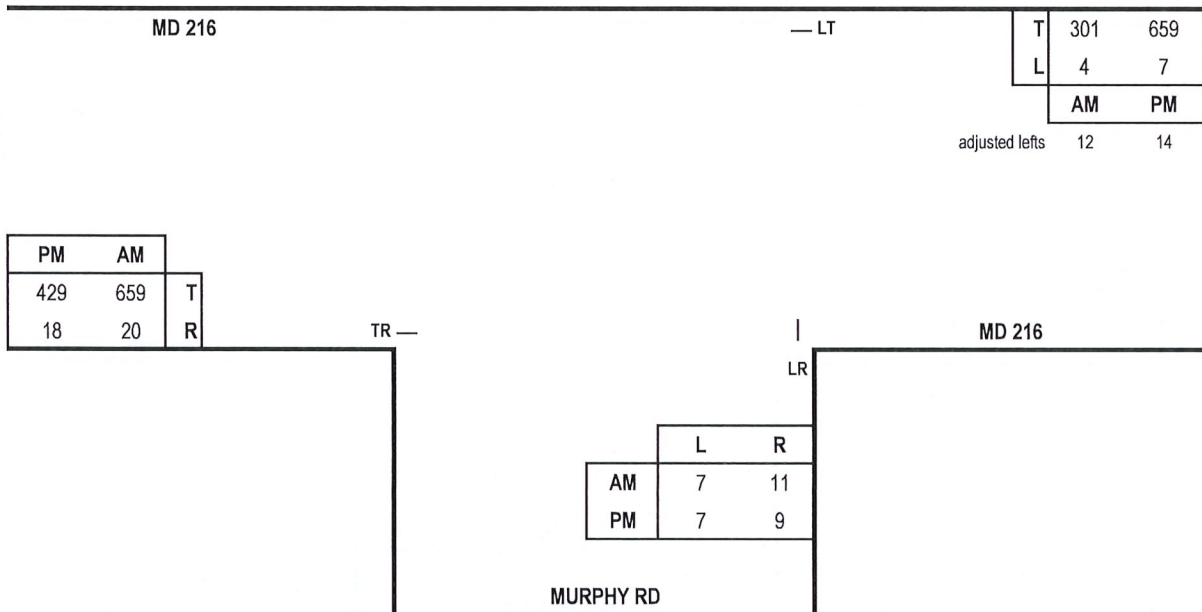
E/W Road: MD 216  
N/S Road: Murphy Rd  
Conditions: Existing Traffic

Date of Count: 11/19/2025  
Day of Count: Wednesday  
Analyst: Richard Huang



Peak: 7:30 - 8:30

Peak: 4:15 - 5:15



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | AM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 18           | 1.00  | 18      |                  |       |         | 18  |
| EB                       | 679          | 1.00  | 679     | 4                | 1.00  | 4       | 683 |
| WB                       | 313          | 1.00  | 313     |                  |       |         |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 701 |
| Level of Service (LOS) = |              |       |         |                  |       |         | A   |

CLV V/C = 0.44

| Evening Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | PM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 16           | 1.00  | 16      |                  |       |         | 16  |
| EB                       | 447          | 1.00  | 447     | 7                | 1.00  | 7       | 673 |
| WB                       | 673          | 1.00  | 673     |                  |       |         |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 689 |
| Level of Service (LOS )= |              |       |         |                  |       |         | A   |

CLV V/C = 0.43



## CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 216

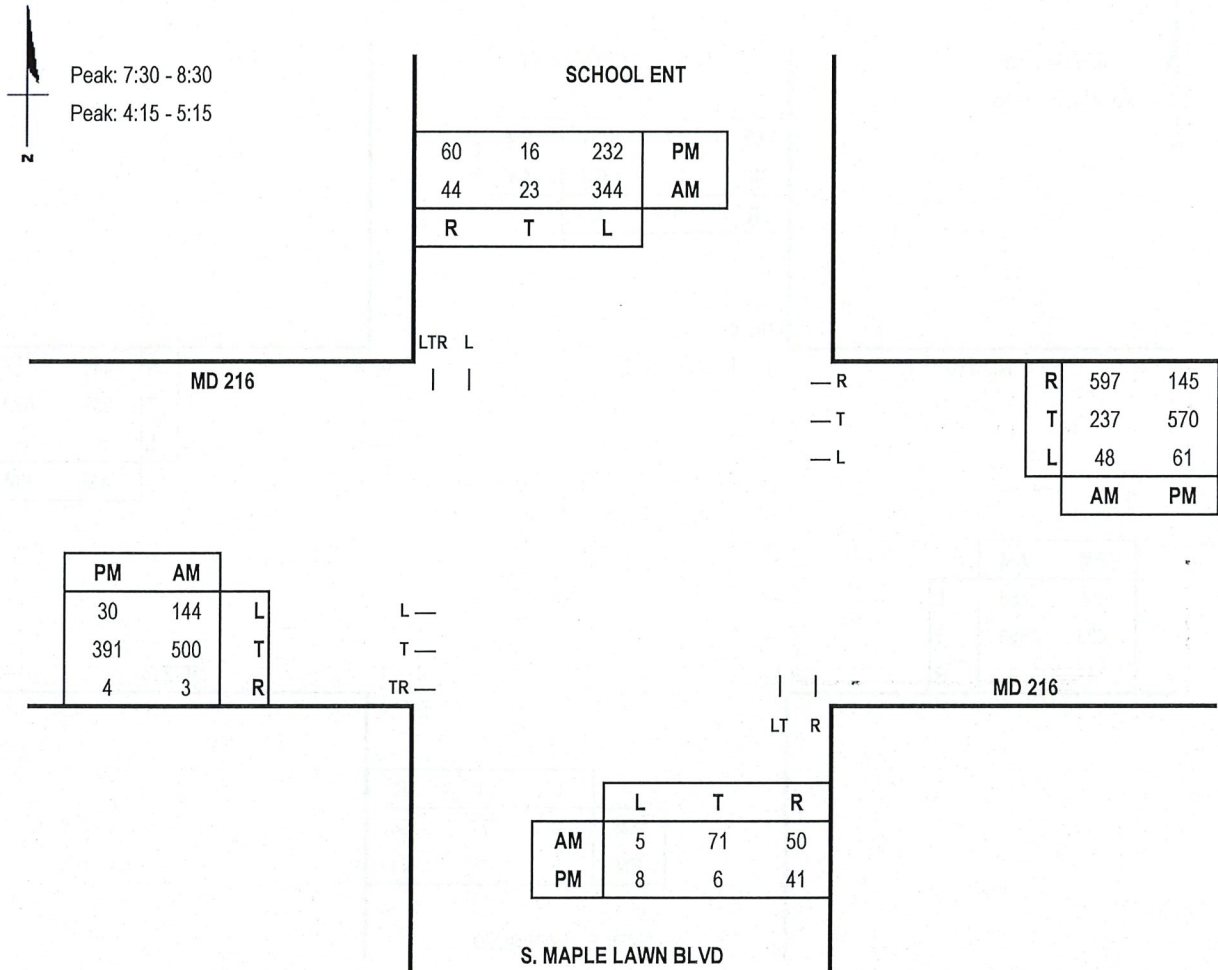
Date of Count: 11/19/2025

N/S Road: School Ent/S. Maple Lawn Blvd

Day of Count: Wednesday

Conditions: Existing Traffic

Analyst: Richard Huang



### Capacity Analysis - North/South Split

| Morning Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | AM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 76           | 1.00  | 76      |                  |       |         | 76  |
| SB                       | 411          | 0.55  | 226     |                  |       |         | 226 |
| EB                       | 503          | 0.55  | 277     | 48               | 1.00  | 48      | 515 |
| WB                       | 371          | 1.00  | 371     | 144              | 1.00  | 144     |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 817 |
| Level of Service (LOS )= |              |       |         |                  |       |         | A   |

AM V/C = 0.51

| Evening Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | PM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 14           | 1.00  | 14      |                  |       |         | 14  |
| SB                       | 308          | 0.55  | 169     |                  |       |         | 169 |
| EB                       | 395          | 0.55  | 217     | 61               | 1.00  | 61      | 600 |
| WB                       | 570          | 1.00  | 570     | 30               | 1.00  | 30      |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 783 |
| Level of Service (LOS) = |              |       |         |                  |       |         | A   |

PM V/C = 0.49

## CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 216

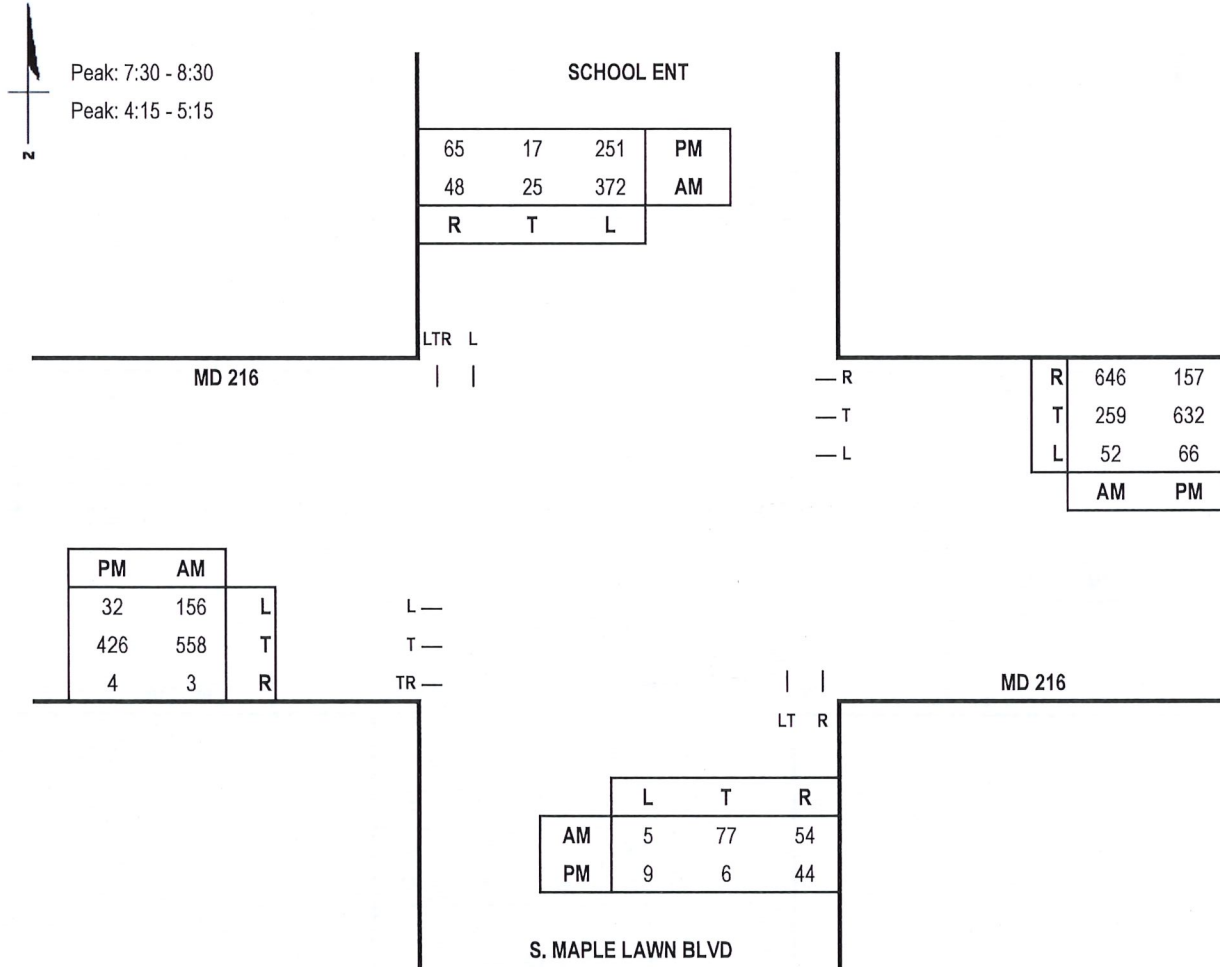
Date of Count: 11/19/2025

N/S Road: School Ent/S. Maple Lawn Blvd

Day of Count: Wednesday

Conditions: 2030 Background Traffic

Analyst: Richard Huang



### Capacity Analysis - North/South Split

| Morning Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| NB                       | 82           | 1.00  | 82      |                  |       |         |
| SB                       | 445          | 0.55  | 245     |                  |       |         |
| EB                       | 561          | 0.55  | 309     | 52               | 1.00  | 52      |
| WB                       | 401          | 1.00  | 401     | 156              | 1.00  | 156     |
| CLV TOTAL=               |              |       |         |                  |       | 884     |
| Level of Service (LOS) = |              |       |         |                  |       | A       |

AM V/C = 0.55

| Evening Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| NB                       | 15           | 1.00  | 15      |                  |       |         |
| SB                       | 333          | 0.55  | 183     |                  |       |         |
| EB                       | 430          | 0.55  | 237     | 66               | 1.00  | 66      |
| WB                       | 632          | 1.00  | 632     | 32               | 1.00  | 32      |
| CLV TOTAL=               |              |       |         |                  |       | 862     |
| Level of Service (LOS) = |              |       |         |                  |       | A       |

PM V/C = 0.54

## CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 216

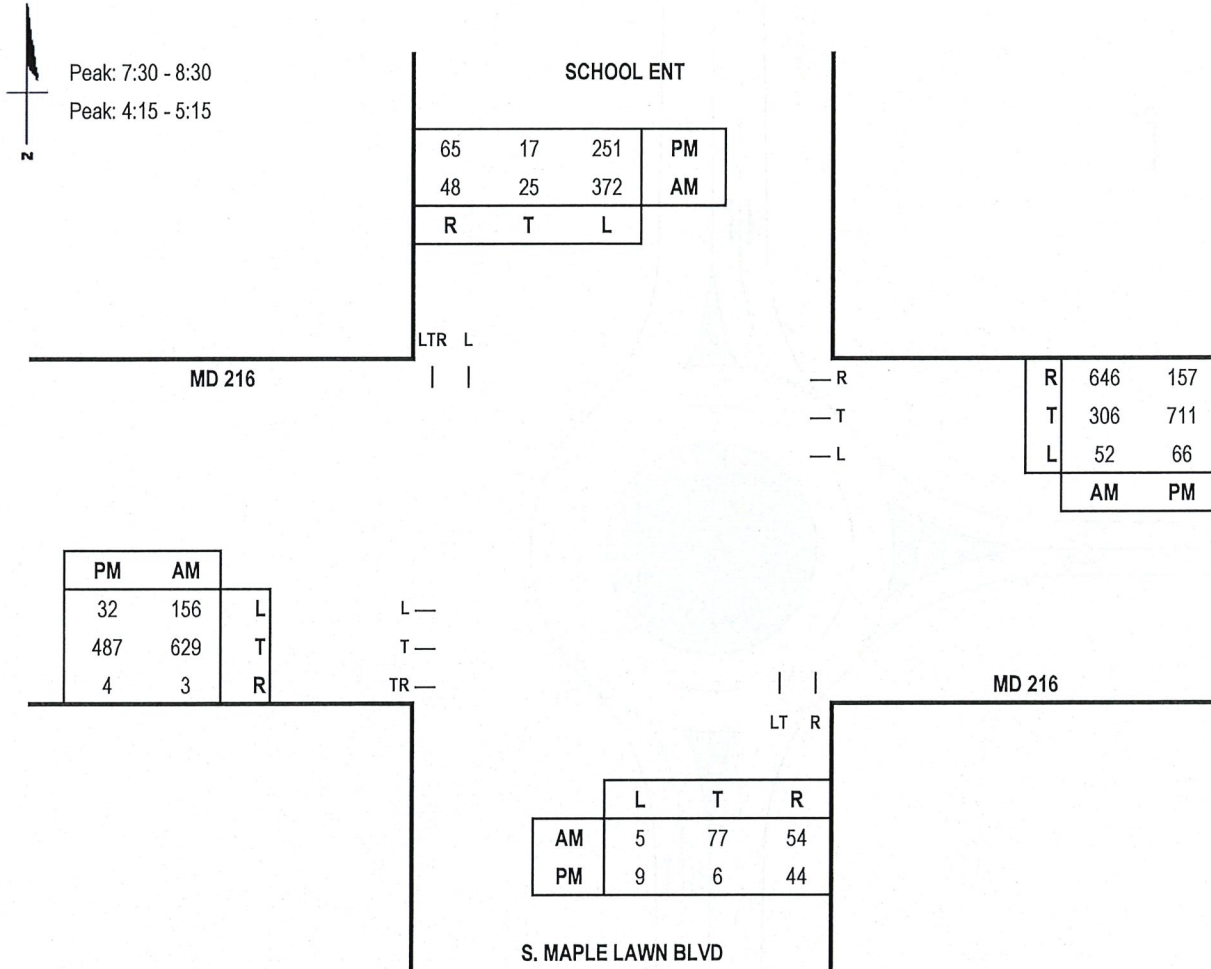
Date of Count: 11/19/2025

N/S Road: School Ent/S. Maple Lawn Blvd

Day of Count: Wednesday

Conditions: 2030 Total Traffic

Analyst: Richard Huang



### Capacity Analysis - North/South Split

| Morning Peak Hour       |              |       |         |                  |       |         |     |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | AM  |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                      | 82           | 1.00  | 82      |                  |       |         | 82  |
| SB                      | 445          | 0.55  | 245     |                  |       |         | 245 |
| EB                      | 632          | 0.55  | 348     | 52               | 1.00  | 52      | 557 |
| WB                      | 401          | 1.00  | 401     | 156              | 1.00  | 156     |     |
| CLV TOTAL=              |              |       |         |                  |       |         | 884 |
| Level of Service (LOS)= |              |       |         |                  |       |         | A   |

AM V/C = 0.55

| Evening Peak Hour       |              |       |         |                  |       |         |     |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | PM  |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                      | 15           | 1.00  | 15      |                  |       |         | 15  |
| SB                      | 333          | 0.55  | 183     |                  |       |         | 183 |
| EB                      | 491          | 0.55  | 270     | 66               | 1.00  | 66      | 743 |
| WB                      | 711          | 1.00  | 711     | 32               | 1.00  | 32      |     |
| CLV TOTAL=              |              |       |         |                  |       |         | 941 |
| Level of Service (LOS)= |              |       |         |                  |       |         | A   |

PM V/C = 0.59

# SITE LAYOUT

 Site: [1] EA (Int 2)

Maple Lawn Blvd at Lager Blvd

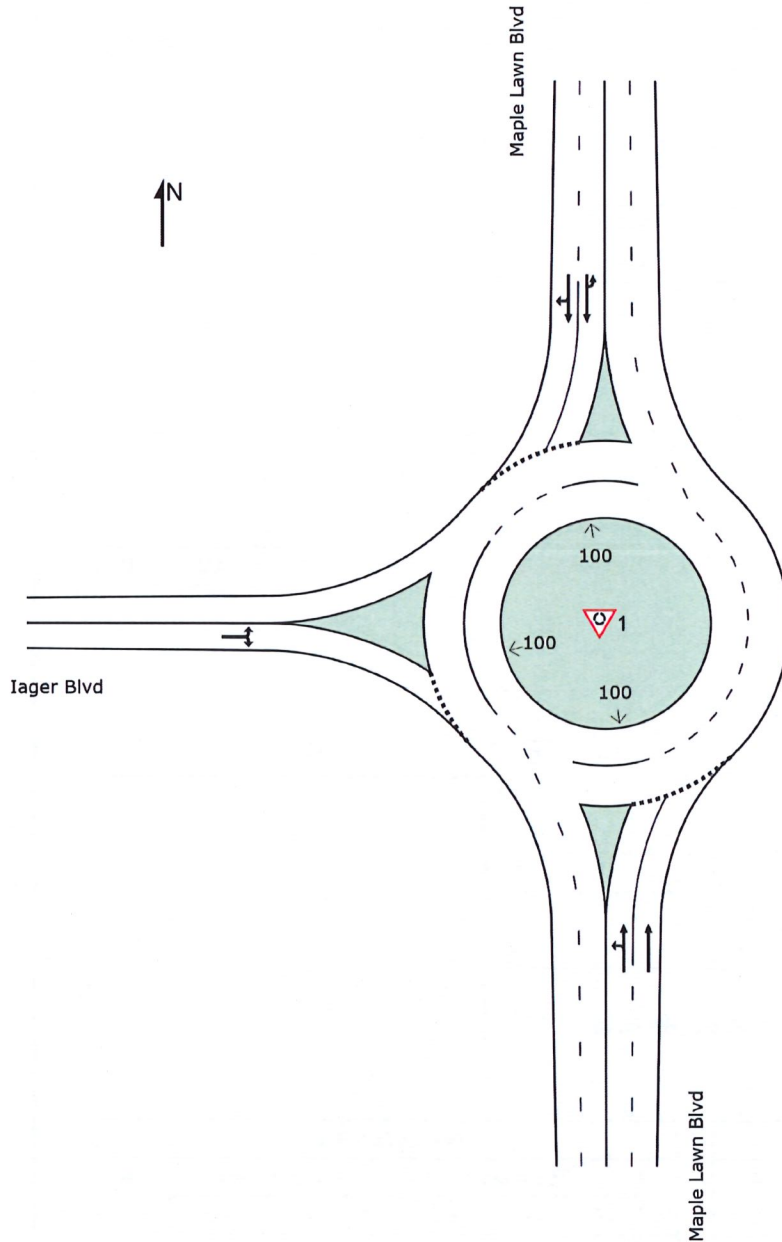
Existing AM

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | [sidrasolutions.com](http://sidrasolutions.com)

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Created: Tuesday, December 16, 2025 1:28:03 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGINEERING\HCM\2.sipx



# MOVEMENT SUMMARY



Site: [1] EA (Int 2)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Maple Lawn Blvd at Lager Blvd

Existing AM

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
|------------------------------|------|-----------|-----------------|----------|-----------------|----------|-----------|-------------|------------------|-------------------|-------------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows    |          | Arrival Flows   |          | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |             | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h ] | [ HV % ] | [ Total veh/h ] | [ HV % ] | v/c       | sec         |                  | [ Veh. veh ]      | [ Dist ft ] |            |                |                            | mph         |
| South: Maple Lawn Blvd       |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 3                            | L2   | All MCs   | 80              | 0.0      | 80              | 0.0      | 0.100     | 3.7         | LOS A            | 0.4               | 10.1        | 0.22       | 0.10           | 0.22                       | 32.2        |
| 8                            | T1   | All MCs   | 167             | 3.0      | 167             | 3.0      | 0.100     | 3.7         | LOS A            | 0.4               | 10.1        | 0.21       | 0.10           | 0.21                       | 34.1        |
| Approach                     |      |           | 247             | 2.0      | 247             | 2.0      | 0.100     | 3.7         | LOS A            | 0.4               | 10.1        | 0.22       | 0.10           | 0.22                       | 33.5        |
| North: Maple Lawn Blvd       |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 7u                           | U    | All MCs   | 2               | 50.0     | 2               | 50.0     | 0.150     | 7.6         | LOS A            | 0.6               | 15.9        | 0.20       | 0.08           | 0.20                       | 32.2        |
| 4                            | T1   | All MCs   | 326             | 3.0      | 326             | 3.0      | 0.150     | 4.1         | LOS A            | 0.6               | 15.9        | 0.20       | 0.08           | 0.20                       | 34.3        |
| 14                           | R2   | All MCs   | 44              | 5.0      | 44              | 5.0      | 0.150     | 4.1         | LOS A            | 0.6               | 15.4        | 0.19       | 0.08           | 0.19                       | 34.0        |
| Approach                     |      |           | 373             | 3.5      | 373             | 3.5      | 0.150     | 4.1         | LOS A            | 0.6               | 15.9        | 0.20       | 0.08           | 0.20                       | 34.3        |
| West: Iager Blvd             |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 5                            | L2   | All MCs   | 102             | 0.0      | 102             | 0.0      | 0.236     | 5.5         | LOS A            | 1.0               | 25.0        | 0.44       | 0.30           | 0.44                       | 32.0        |
| 12                           | R2   | All MCs   | 147             | 1.0      | 147             | 1.0      | 0.236     | 5.7         | LOS A            | 1.0               | 25.0        | 0.44       | 0.30           | 0.44                       | 32.3        |
| Approach                     |      |           | 249             | 0.6      | 249             | 0.6      | 0.236     | 5.6         | LOS A            | 1.0               | 25.0        | 0.44       | 0.30           | 0.44                       | 32.2        |
| All Vehicles                 |      |           | 868             | 2.3      | 868             | 2.3      | 0.236     | 4.4         | LOS A            | 1.0               | 25.0        | 0.27       | 0.15           | 0.27                       | 33.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:27:44 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGINE\INITIAL\HCM\2.sipx

MOVEMENT SUMMARY

Site: [1 (2)] EP (Int 2)  
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Maple Lawn Blvd at Lager Blvd  
Existing PM  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
|------------------------------|------|-----------|--------------|------|---------------|------|-----------|-------------|------------------|-------------------|--------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |        | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total      | HV ] | [ Total       | HV ] |           |             |                  | [ Veh.            | Dist ] |            |                |                            |             |
|                              |      |           | veh/h        | %    | veh/h         | %    |           |             |                  | v/c               | sec    |            |                |                            | veh         |
| South: Maple Lawn Blvd       |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 3                            | L2   | All MCs   | 116          | 0.0  | 116           | 0.0  | 0.183     | 4.3         | LOS A            | 0.8               | 20.3   | 0.21       | 0.09           | 0.21                       | 32.3        |
| 8                            | T1   | All MCs   | 349          | 2.0  | 349           | 2.0  | 0.183     | 4.3         | LOS A            | 0.8               | 20.3   | 0.20       | 0.08           | 0.20                       | 33.8        |
| Approach                     |      |           | 465          | 1.5  | 465           | 1.5  | 0.183     | 4.3         | LOS A            | 0.8               | 20.3   | 0.20       | 0.08           | 0.20                       | 33.4        |
| North: Maple Lawn Blvd       |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 7u                           | U    | All MCs   | 2            | 0.0  | 2             | 0.0  | 0.136     | 4.0         | LOS A            | 0.6               | 14.2   | 0.24       | 0.12           | 0.24                       | 33.7        |
| 4                            | T1   | All MCs   | 257          | 1.0  | 257           | 1.0  | 0.136     | 4.0         | LOS A            | 0.6               | 14.2   | 0.24       | 0.11           | 0.24                       | 34.4        |
| 14                           | R2   | All MCs   | 78           | 0.0  | 78            | 0.0  | 0.136     | 3.9         | LOS A            | 0.5               | 13.8   | 0.23       | 0.11           | 0.23                       | 34.2        |
| Approach                     |      |           | 337          | 0.8  | 337           | 0.8  | 0.136     | 4.0         | LOS A            | 0.6               | 14.2   | 0.24       | 0.11           | 0.24                       | 34.3        |
| West: Lager Blvd             |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 5                            | L2   | All MCs   | 78           | 1.0  | 78            | 1.0  | 0.143     | 4.5         | LOS A            | 0.6               | 14.2   | 0.36       | 0.22           | 0.36                       | 32.3        |
| 12                           | R2   | All MCs   | 84           | 0.0  | 84            | 0.0  | 0.143     | 4.4         | LOS A            | 0.6               | 14.2   | 0.36       | 0.22           | 0.36                       | 32.7        |
| Approach                     |      |           | 162          | 0.5  | 162           | 0.5  | 0.143     | 4.4         | LOS A            | 0.6               | 14.2   | 0.36       | 0.22           | 0.36                       | 32.5        |
| All Vehicles                 |      |           | 964          | 1.1  | 964           | 1.1  | 0.183     | 4.2         | LOS A            | 0.8               | 20.3   | 0.24       | 0.12           | 0.24                       | 33.6        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Roundabout LOS Method: Same as Sign Control.  
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.  
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).  
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).  
Roundabout Capacity Model: US HCM 6.  
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



# MOVEMENT SUMMARY



Site: [1 (3)] BA (Int 2)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Maple Lawn Blvd at Lager Blvd

2030 Background AM

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: Maple Lawn Blvd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 86            | 0.0  | 86            | 0.0  | 0.115     | 3.9         | LOS A            | 0.5               | 11.6      | 0.25       | 0.12           | 0.25                       | 32.2        |
| 8                            | T1   | All MCs   | 191           | 3.0  | 191           | 3.0  | 0.115     | 3.9         | LOS A            | 0.5               | 11.6      | 0.24       | 0.12           | 0.24                       | 34.0        |
| Approach                     |      |           | 277           | 2.1  | 277           | 2.1  | 0.115     | 3.9         | LOS A            | 0.5               | 11.6      | 0.24       | 0.12           | 0.24                       | 33.4        |
| North: Maple Lawn Blvd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7u                           | U    | All MCs   | 2             | 50.0 | 2             | 50.0 | 0.196     | 8.2         | LOS A            | 0.8               | 21.8      | 0.22       | 0.09           | 0.22                       | 32.0        |
| 4                            | T1   | All MCs   | 432           | 3.0  | 432           | 3.0  | 0.196     | 4.5         | LOS A            | 0.8               | 21.8      | 0.22       | 0.09           | 0.22                       | 34.1        |
| 14                           | R2   | All MCs   | 51            | 5.0  | 51            | 5.0  | 0.196     | 4.5         | LOS A            | 0.8               | 21.2      | 0.21       | 0.09           | 0.21                       | 33.8        |
| Approach                     |      |           | 485           | 3.4  | 485           | 3.4  | 0.196     | 4.5         | LOS A            | 0.8               | 21.8      | 0.22       | 0.09           | 0.22                       | 34.1        |
| West: Iager Blvd             |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 124           | 0.0  | 124           | 0.0  | 0.294     | 6.7         | LOS A            | 1.3               | 31.8      | 0.52       | 0.40           | 0.52                       | 31.4        |
| 12                           | R2   | All MCs   | 159           | 1.0  | 159           | 1.0  | 0.294     | 6.8         | LOS A            | 1.3               | 31.8      | 0.52       | 0.40           | 0.52                       | 31.8        |
| Approach                     |      |           | 283           | 0.6  | 283           | 0.6  | 0.294     | 6.7         | LOS A            | 1.3               | 31.8      | 0.52       | 0.40           | 0.52                       | 31.6        |
| All Vehicles                 |      |           | 1045          | 2.3  | 1045          | 2.3  | 0.294     | 5.0         | LOS A            | 1.3               | 31.8      | 0.31       | 0.18           | 0.31                       | 33.2        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:27:45 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM2.sipx

# MOVEMENT SUMMARY



Site: [1 (4)] BP (Int 2)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Maple Lawn Blvd at Lager Blvd

2030 Background PM

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
|------------------------------|------|-----------|--------------|------|---------------|------|-----------|-------------|------------------|-------------------|--------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |        | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total      | HV ] | [ Total       | HV ] |           |             |                  | [ Veh.            | Dist ] |            |                |                            |             |
|                              |      |           | veh/h        | %    | veh/h         | %    |           |             |                  | v/c               | sec    |            |                |                            |             |
| South: Maple Lawn Blvd       |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 3                            | L2   | All MCs   | 126          | 0.0  | 126           | 0.0  | 0.227     | 4.8         | LOS A            | 1.0               | 26.3   | 0.24       | 0.11           | 0.24                       | 32.2        |
| 8                            | T1   | All MCs   | 443          | 2.0  | 443           | 2.0  | 0.227     | 4.8         | LOS A            | 1.0               | 26.3   | 0.23       | 0.10           | 0.23                       | 33.6        |
| Approach                     |      |           | 570          | 1.6  | 570           | 1.6  | 0.227     | 4.8         | LOS A            | 1.0               | 26.3   | 0.23       | 0.10           | 0.23                       | 33.3        |
| North: Maple Lawn Blvd       |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 7u                           | U    | All MCs   | 2            | 0.0  | 2             | 0.0  | 0.160     | 4.3         | LOS A            | 0.7               | 17.1   | 0.26       | 0.13           | 0.26                       | 33.6        |
| 4                            | T1   | All MCs   | 291          | 1.0  | 291           | 1.0  | 0.160     | 4.3         | LOS A            | 0.7               | 17.1   | 0.26       | 0.12           | 0.26                       | 34.3        |
| 14                           | R2   | All MCs   | 101          | 0.0  | 101           | 0.0  | 0.160     | 4.1         | LOS A            | 0.7               | 16.7   | 0.25       | 0.12           | 0.25                       | 34.1        |
| Approach                     |      |           | 395          | 0.7  | 395           | 0.7  | 0.160     | 4.2         | LOS A            | 0.7               | 17.1   | 0.25       | 0.12           | 0.25                       | 34.2        |
| West: Iager Blvd             |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 5                            | L2   | All MCs   | 91           | 1.0  | 91            | 1.0  | 0.166     | 4.8         | LOS A            | 0.7               | 16.7   | 0.39       | 0.26           | 0.39                       | 32.1        |
| 12                           | R2   | All MCs   | 90           | 0.0  | 90            | 0.0  | 0.166     | 4.7         | LOS A            | 0.7               | 16.7   | 0.39       | 0.26           | 0.39                       | 32.5        |
| Approach                     |      |           | 182          | 0.5  | 182           | 0.5  | 0.166     | 4.7         | LOS A            | 0.7               | 16.7   | 0.39       | 0.26           | 0.39                       | 32.3        |
| All Vehicles                 |      |           | 1146         | 1.1  | 1146          | 1.1  | 0.227     | 4.6         | LOS A            | 1.0               | 26.3   | 0.27       | 0.13           | 0.27                       | 33.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:27:45 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM\2.sipx



# MOVEMENT SUMMARY



Site: [1 (5)] TA (Int 2)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Maple Lawn Blvd at Lager Blvd  
2030 Total AM  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
|------------------------------|------|-----------|-----------------|----------|-----------------|----------|-----------|-------------|------------------|-------------------|-------------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows    |          | Arrival Flows   |          | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |             | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h ] | [ HV % ] | [ Total veh/h ] | [ HV % ] | v/c       | sec         |                  | [ Veh. veh ]      | [ Dist ft ] |            |                |                            | mph         |
| South: Maple Lawn Blvd       |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 3                            | L2   | All MCs   | 86              | 0.0      | 86              | 0.0      | 0.125     | 4.1         | LOS A            | 0.5               | 12.8        | 0.28       | 0.15           | 0.28                       | 32.2        |
| 8                            | T1   | All MCs   | 209             | 3.0      | 209             | 3.0      | 0.125     | 4.1         | LOS A            | 0.5               | 12.8        | 0.27       | 0.14           | 0.27                       | 33.9        |
| Approach                     |      |           | 295             | 2.1      | 295             | 2.1      | 0.125     | 4.1         | LOS A            | 0.5               | 12.8        | 0.28       | 0.14           | 0.28                       | 33.4        |
| North: Maple Lawn Blvd       |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 7u                           | U    | All MCs   | 2               | 50.0     | 2               | 50.0     | 0.202     | 8.3         | LOS A            | 0.9               | 22.7        | 0.22       | 0.09           | 0.22                       | 32.0        |
| 4                            | T1   | All MCs   | 437             | 3.0      | 437             | 3.0      | 0.202     | 4.6         | LOS A            | 0.9               | 22.7        | 0.22       | 0.09           | 0.22                       | 34.1        |
| 14                           | R2   | All MCs   | 61              | 5.0      | 61              | 5.0      | 0.202     | 4.6         | LOS A            | 0.9               | 22.1        | 0.21       | 0.09           | 0.21                       | 33.8        |
| Approach                     |      |           | 501             | 3.5      | 501             | 3.5      | 0.202     | 4.6         | LOS A            | 0.9               | 22.7        | 0.22       | 0.09           | 0.22                       | 34.0        |
| West: Lager Blvd             |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 5                            | L2   | All MCs   | 152             | 0.0      | 152             | 0.0      | 0.325     | 7.1         | LOS A            | 1.4               | 36.0        | 0.54       | 0.41           | 0.54                       | 31.1        |
| 12                           | R2   | All MCs   | 159             | 1.0      | 159             | 1.0      | 0.325     | 7.2         | LOS A            | 1.4               | 36.0        | 0.54       | 0.41           | 0.54                       | 31.5        |
| Approach                     |      |           | 311             | 0.5      | 311             | 0.5      | 0.325     | 7.2         | LOS A            | 1.4               | 36.0        | 0.54       | 0.41           | 0.54                       | 31.3        |
| All Vehicles                 |      |           | 1108            | 2.3      | 1108            | 2.3      | 0.325     | 5.2         | LOS A            | 1.4               | 36.0        | 0.32       | 0.19           | 0.32                       | 33.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Roundabout LOS Method: Same as Sign Control.  
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.  
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).  
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).  
Roundabout Capacity Model: US HCM 6.  
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com  
Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Monday, December 29, 2025 12:58:32 PM  
Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENG\INITIAL\HCM2.sipx

MOVEMENT SUMMARY

Site: [1 (6)] TP (Int 2)  
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Maple Lawn Blvd at Lager Blvd  
2030 Total PM  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
|------------------------------|------|-----------|--------------|------|---------------|------|-----------|-------------|------------------|-------------------|--------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |        | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total      | HV ] | [ Total       | HV ] |           |             |                  | [ Veh.            | Dist ] |            |                |                            |             |
|                              |      |           | veh/h        | %    | veh/h         | %    |           |             |                  | veh               | ft     |            |                |                            |             |
| v/c                          |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| sec                          |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| mph                          |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| South: Maple Lawn Blvd       |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 3                            | L2   | All MCs   | 126          | 0.0  | 126           | 0.0  | 0.234     | 4.9         | LOS A            | 1.1               | 27.1   | 0.27       | 0.13           | 0.27                       | 32.2        |
| 8                            | T1   | All MCs   | 451          | 2.0  | 451           | 2.0  | 0.234     | 4.9         | LOS A            | 1.1               | 27.1   | 0.26       | 0.12           | 0.26                       | 33.6        |
| Approach                     |      |           | 577          | 1.6  | 577           | 1.6  | 0.234     | 4.9         | LOS A            | 1.1               | 27.1   | 0.26       | 0.12           | 0.26                       | 33.2        |
| North: Maple Lawn Blvd       |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 7u                           | U    | All MCs   | 2            | 0.0  | 2             | 0.0  | 0.179     | 4.5         | LOS A            | 0.8               | 19.4   | 0.27       | 0.13           | 0.27                       | 33.5        |
| 4                            | T1   | All MCs   | 305          | 1.0  | 305           | 1.0  | 0.179     | 4.5         | LOS A            | 0.8               | 19.4   | 0.26       | 0.13           | 0.26                       | 34.2        |
| 14                           | R2   | All MCs   | 132          | 0.0  | 132           | 0.0  | 0.179     | 4.3         | LOS A            | 0.8               | 18.9   | 0.25       | 0.12           | 0.25                       | 34.0        |
| Approach                     |      |           | 439          | 0.7  | 439           | 0.7  | 0.179     | 4.4         | LOS A            | 0.8               | 19.4   | 0.26       | 0.13           | 0.26                       | 34.1        |
| West: Lager Blvd             |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 5                            | L2   | All MCs   | 110          | 1.0  | 110           | 1.0  | 0.185     | 5.0         | LOS A            | 0.8               | 18.8   | 0.40       | 0.27           | 0.40                       | 31.9        |
| 12                           | R2   | All MCs   | 90           | 0.0  | 90            | 0.0  | 0.185     | 4.9         | LOS A            | 0.8               | 18.8   | 0.40       | 0.27           | 0.40                       | 32.3        |
| Approach                     |      |           | 200          | 0.5  | 200           | 0.5  | 0.185     | 5.0         | LOS A            | 0.8               | 18.8   | 0.40       | 0.27           | 0.40                       | 32.1        |
| All Vehicles                 |      |           | 1216         | 1.1  | 1216          | 1.1  | 0.234     | 4.7         | LOS A            | 1.1               | 27.1   | 0.28       | 0.15           | 0.28                       | 33.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Roundabout LOS Method: Same as Sign Control.  
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.  
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).  
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).  
Roundabout Capacity Model: US HCM 6.  
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



# SITE LAYOUT

 Site: [1 (3)] BA (Folder1)

MD 216 at Lime Kiln Rd/Site Access

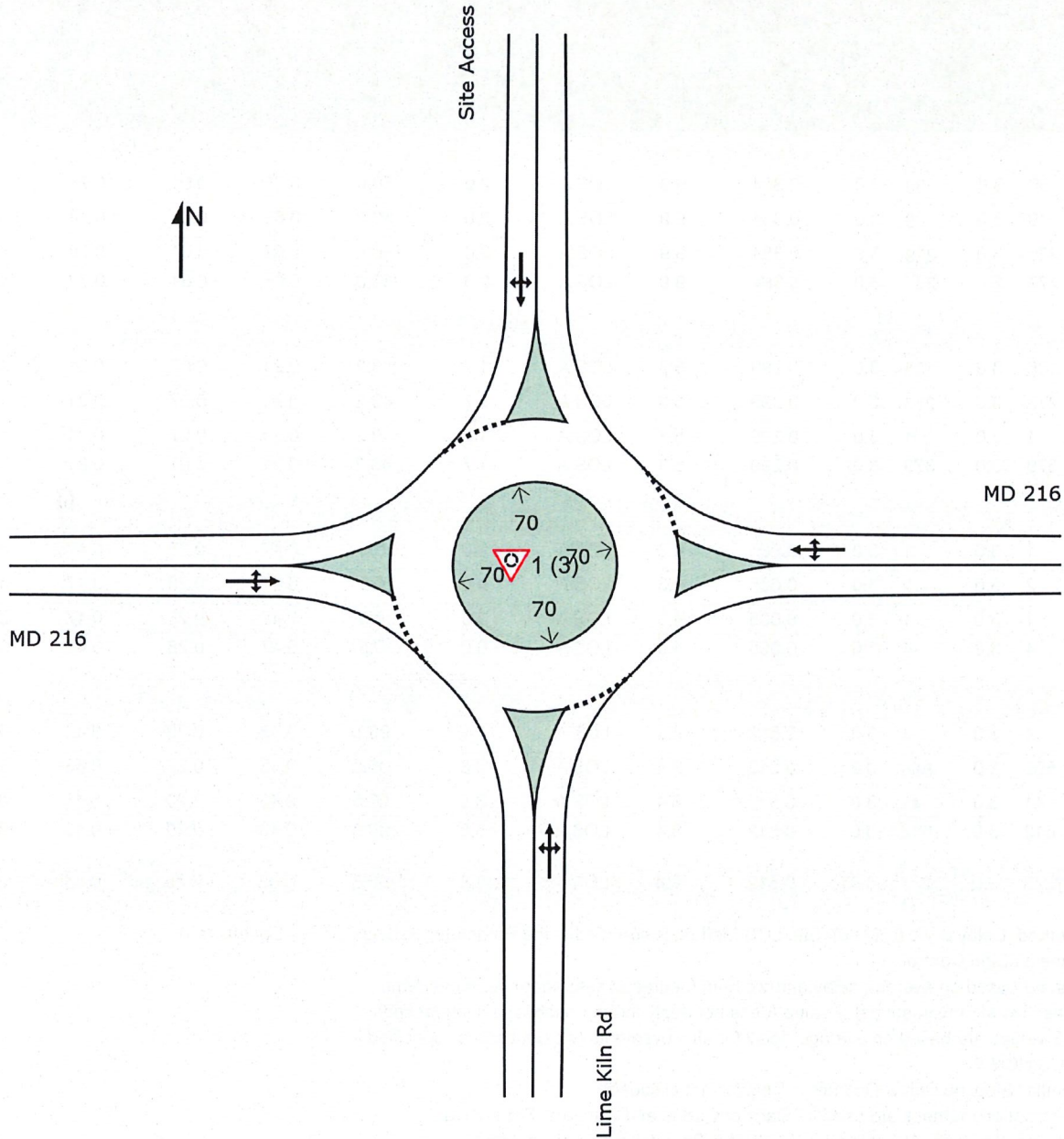
2030 Background AM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: [1 (3)] BA (Folder1)  
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Lime Kiln Rd/Site Access  
2030 Background AM Peak Hour  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |        |     |               |     |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|--------|-----|---------------|-----|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand |     | Arrival Flows |     | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | Flows  |     | [ Total HV ]  |     |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            |             |
|                              |      |           | veh/h  | %   | veh/h         | %   |           |             |                  |                   |           |            |                |                            |             |
| South: Lime Kiln Rd          |      |           |        |     |               |     |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 39     | 3.0 | 39            | 3.0 | 0.384     | 9.9         | LOS A            | 2.0               | 50.0      | 0.68       | 0.61           | 0.78                       | 30.3        |
| 8                            | T1   | All MCs   | 9      | 3.0 | 9             | 3.0 | 0.384     | 9.9         | LOS A            | 2.0               | 50.0      | 0.68       | 0.61           | 0.78                       | 30.9        |
| 18                           | R2   | All MCs   | 229    | 3.0 | 229           | 3.0 | 0.384     | 9.9         | LOS A            | 2.0               | 50.0      | 0.68       | 0.61           | 0.78                       | 30.7        |
| Approach                     |      |           | 277    | 3.0 | 277           | 3.0 | 0.384     | 9.9         | LOS A            | 2.0               | 50.0      | 0.68       | 0.61           | 0.78                       | 30.6        |
| East: MD 216                 |      |           |        |     |               |     |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 105    | 3.0 | 105           | 3.0 | 0.299     | 5.3         | LOS A            | 1.7               | 43.2      | 0.21       | 0.07           | 0.21                       | 32.1        |
| 6                            | T1   | All MCs   | 273    | 3.0 | 273           | 3.0 | 0.299     | 5.3         | LOS A            | 1.7               | 43.2      | 0.21       | 0.07           | 0.21                       | 32.6        |
| 16                           | R2   | All MCs   | 1      | 3.0 | 1             | 3.0 | 0.299     | 5.3         | LOS A            | 1.7               | 43.2      | 0.21       | 0.07           | 0.21                       | 32.4        |
| Approach                     |      |           | 379    | 3.0 | 379           | 3.0 | 0.299     | 5.3         | LOS A            | 1.7               | 43.2      | 0.21       | 0.07           | 0.21                       | 32.5        |
| North: Site Access           |      |           |        |     |               |     |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 1      | 3.0 | 1             | 3.0 | 0.005     | 4.3         | LOS A            | 0.0               | 0.5       | 0.47       | 0.28           | 0.47                       | 32.6        |
| 4                            | T1   | All MCs   | 2      | 3.0 | 2             | 3.0 | 0.005     | 4.3         | LOS A            | 0.0               | 0.5       | 0.47       | 0.28           | 0.47                       | 33.2        |
| 14                           | R2   | All MCs   | 1      | 3.0 | 1             | 3.0 | 0.005     | 4.3         | LOS A            | 0.0               | 0.5       | 0.47       | 0.28           | 0.47                       | 33.0        |
| Approach                     |      |           | 4      | 3.0 | 4             | 3.0 | 0.005     | 4.3         | LOS A            | 0.0               | 0.5       | 0.47       | 0.28           | 0.47                       | 33.0        |
| West: MD 216                 |      |           |        |     |               |     |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 4      | 3.0 | 4             | 3.0 | 0.512     | 8.4         | LOS A            | 3.8               | 96.8      | 0.43       | 0.20           | 0.43                       | 31.2        |
| 2                            | T1   | All MCs   | 566    | 3.0 | 566           | 3.0 | 0.512     | 8.4         | LOS A            | 3.8               | 96.8      | 0.43       | 0.20           | 0.43                       | 31.8        |
| 12                           | R2   | All MCs   | 41     | 3.0 | 41            | 3.0 | 0.512     | 8.4         | LOS A            | 3.8               | 96.8      | 0.43       | 0.20           | 0.43                       | 31.6        |
| Approach                     |      |           | 612    | 3.0 | 612           | 3.0 | 0.512     | 8.4         | LOS A            | 3.8               | 96.8      | 0.43       | 0.20           | 0.43                       | 31.8        |
| All Vehicles                 |      |           | 1273   | 3.0 | 1273          | 3.0 | 0.512     | 7.8         | LOS A            | 3.8               | 96.8      | 0.42       | 0.25           | 0.44                       | 31.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Roundabout LOS Method: Same as Sign Control.  
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.  
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).  
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).  
Roundabout Capacity Model: US HCM 6.  
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



# MOVEMENT SUMMARY



Site: [1 (4)] BP (Folder1)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Lime Kiln Rd/Site Access

2030 Background PM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: Lime Kiln Rd          |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 21            | 3.0  | 21            | 3.0  | 0.226     | 5.9         | LOS A            | 1.0               | 26.7      | 0.48       | 0.33           | 0.48                       | 32.2        |
| 8                            | T1   | All MCs   | 4             | 3.0  | 4             | 3.0  | 0.226     | 5.9         | LOS A            | 1.0               | 26.7      | 0.48       | 0.33           | 0.48                       | 32.8        |
| 18                           | R2   | All MCs   | 193           | 3.0  | 193           | 3.0  | 0.226     | 5.9         | LOS A            | 1.0               | 26.7      | 0.48       | 0.33           | 0.48                       | 32.5        |
| Approach                     |      |           | 218           | 3.0  | 218           | 3.0  | 0.226     | 5.9         | LOS A            | 1.0               | 26.7      | 0.48       | 0.33           | 0.48                       | 32.5        |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 246           | 3.0  | 246           | 3.0  | 0.624     | 8.7         | LOS A            | 6.5               | 165.2     | 0.27       | 0.07           | 0.27                       | 30.6        |
| 6                            | T1   | All MCs   | 567           | 3.0  | 567           | 3.0  | 0.624     | 8.7         | LOS A            | 6.5               | 165.2     | 0.27       | 0.07           | 0.27                       | 31.1        |
| 16                           | R2   | All MCs   | 1             | 3.0  | 1             | 3.0  | 0.624     | 8.7         | LOS A            | 6.5               | 165.2     | 0.27       | 0.07           | 0.27                       | 30.9        |
| Approach                     |      |           | 814           | 3.0  | 814           | 3.0  | 0.624     | 8.7         | LOS A            | 6.5               | 165.2     | 0.27       | 0.07           | 0.27                       | 30.9        |
| North: Site Access           |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 1             | 3.0  | 1             | 3.0  | 0.032     | 7.0         | LOS A            | 0.1               | 2.9       | 0.62       | 0.56           | 0.62                       | 31.7        |
| 4                            | T1   | All MCs   | 11            | 3.0  | 11            | 3.0  | 0.032     | 7.0         | LOS A            | 0.1               | 2.9       | 0.62       | 0.56           | 0.62                       | 32.3        |
| 14                           | R2   | All MCs   | 5             | 3.0  | 5             | 3.0  | 0.032     | 7.0         | LOS A            | 0.1               | 2.9       | 0.62       | 0.56           | 0.62                       | 32.1        |
| Approach                     |      |           | 17            | 3.0  | 17            | 3.0  | 0.032     | 7.0         | LOS A            | 0.1               | 2.9       | 0.62       | 0.56           | 0.62                       | 32.2        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 2             | 3.0  | 2             | 3.0  | 0.346     | 7.1         | LOS A            | 1.8               | 46.9      | 0.50       | 0.32           | 0.50                       | 31.8        |
| 2                            | T1   | All MCs   | 302           | 3.0  | 302           | 3.0  | 0.346     | 7.1         | LOS A            | 1.8               | 46.9      | 0.50       | 0.32           | 0.50                       | 32.4        |
| 12                           | R2   | All MCs   | 48            | 3.0  | 48            | 3.0  | 0.346     | 7.1         | LOS A            | 1.8               | 46.9      | 0.50       | 0.32           | 0.50                       | 32.2        |
| Approach                     |      |           | 352           | 3.0  | 352           | 3.0  | 0.346     | 7.1         | LOS A            | 1.8               | 46.9      | 0.50       | 0.32           | 0.50                       | 32.4        |
| All Vehicles                 |      |           | 1402          | 3.0  | 1402          | 3.0  | 0.624     | 7.8         | LOS A            | 6.5               | 165.2     | 0.36       | 0.18           | 0.36                       | 31.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:33:21 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGINE\INITIAL\HCM\Int 3.sipx



MOVEMENT SUMMARY

Site: [1] TA (Folder1)  
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Lime Kiln Rd/Site Access  
2030 Total AM Peak Hour  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |        |     |               |        |           |             |                  |                   |        |            |                |                            |             |            |           |
|------------------------------|------|-----------|--------|-----|---------------|--------|-----------|-------------|------------------|-------------------|--------|------------|----------------|----------------------------|-------------|------------|-----------|
| Mov ID                       | Turn | Mov Class | Demand |     | Arrival Flows |        | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |        | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |            |           |
|                              |      |           | Flows  |     | [ Total veh/h | HV ] % |           |             |                  | [ Total veh/h     | HV ] % |            |                |                            |             | [ Veh. veh | Dist ] ft |
|                              |      |           |        |     |               |        |           |             |                  |                   |        |            |                |                            |             |            |           |
| South: Lime Kiln Rd          |      |           |        |     |               |        |           |             |                  |                   |        |            |                |                            |             |            |           |
| 3                            | L2   | All MCs   | 39     | 3.0 | 39            | 3.0    | 0.436     | 11.7        | LOS B            | 2.4               | 61.1   | 0.72       | 0.71           | 0.93                       | 29.6        |            |           |
| 8                            | T1   | All MCs   | 16     | 3.0 | 16            | 3.0    | 0.436     | 11.7        | LOS B            | 2.4               | 61.1   | 0.72       | 0.71           | 0.93                       | 30.1        |            |           |
| 18                           | R2   | All MCs   | 234    | 3.0 | 234           | 3.0    | 0.436     | 11.7        | LOS B            | 2.4               | 61.1   | 0.72       | 0.71           | 0.93                       | 29.9        |            |           |
| Approach                     |      |           | 289    | 3.0 | 289           | 3.0    | 0.436     | 11.7        | LOS B            | 2.4               | 61.1   | 0.72       | 0.71           | 0.93                       | 29.9        |            |           |
| East: MD 216                 |      |           |        |     |               |        |           |             |                  |                   |        |            |                |                            |             |            |           |
| 1                            | L2   | All MCs   | 117    | 3.0 | 117           | 3.0    | 0.344     | 5.9         | LOS A            | 2.0               | 52.3   | 0.26       | 0.10           | 0.26                       | 31.8        |            |           |
| 6                            | T1   | All MCs   | 286    | 3.0 | 286           | 3.0    | 0.344     | 5.9         | LOS A            | 2.0               | 52.3   | 0.26       | 0.10           | 0.26                       | 32.4        |            |           |
| 16                           | R2   | All MCs   | 26     | 3.0 | 26            | 3.0    | 0.344     | 5.9         | LOS A            | 2.0               | 52.3   | 0.26       | 0.10           | 0.26                       | 32.1        |            |           |
| Approach                     |      |           | 429    | 3.0 | 429           | 3.0    | 0.344     | 5.9         | LOS A            | 2.0               | 52.3   | 0.26       | 0.10           | 0.26                       | 32.2        |            |           |
| North: Site Access           |      |           |        |     |               |        |           |             |                  |                   |        |            |                |                            |             |            |           |
| 7                            | L2   | All MCs   | 70     | 3.0 | 70            | 3.0    | 0.137     | 5.7         | LOS A            | 0.6               | 14.4   | 0.53       | 0.41           | 0.53                       | 31.2        |            |           |
| 4                            | T1   | All MCs   | 23     | 3.0 | 23            | 3.0    | 0.137     | 5.7         | LOS A            | 0.6               | 14.4   | 0.53       | 0.41           | 0.53                       | 31.8        |            |           |
| 14                           | R2   | All MCs   | 22     | 3.0 | 22            | 3.0    | 0.137     | 5.7         | LOS A            | 0.6               | 14.4   | 0.53       | 0.41           | 0.53                       | 31.6        |            |           |
| Approach                     |      |           | 114    | 3.0 | 114           | 3.0    | 0.137     | 5.7         | LOS A            | 0.6               | 14.4   | 0.53       | 0.41           | 0.53                       | 31.4        |            |           |
| West: MD 216                 |      |           |        |     |               |        |           |             |                  |                   |        |            |                |                            |             |            |           |
| 5                            | L2   | All MCs   | 12     | 3.0 | 12            | 3.0    | 0.582     | 10.6        | LOS B            | 4.8               | 121.6  | 0.63       | 0.39           | 0.67                       | 30.3        |            |           |
| 2                            | T1   | All MCs   | 570    | 3.0 | 570           | 3.0    | 0.582     | 10.6        | LOS B            | 4.8               | 121.6  | 0.63       | 0.39           | 0.67                       | 30.8        |            |           |
| 12                           | R2   | All MCs   | 41     | 3.0 | 41            | 3.0    | 0.582     | 10.6        | LOS B            | 4.8               | 121.6  | 0.63       | 0.39           | 0.67                       | 30.6        |            |           |
| Approach                     |      |           | 623    | 3.0 | 623           | 3.0    | 0.582     | 10.6        | LOS B            | 4.8               | 121.6  | 0.63       | 0.39           | 0.67                       | 30.8        |            |           |
| All Vehicles                 |      |           | 1455   | 3.0 | 1455          | 3.0    | 0.582     | 9.0         | LOS A            | 4.8               | 121.6  | 0.53       | 0.37           | 0.59                       | 31.1        |            |           |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Roundabout LOS Method: Same as Sign Control.  
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.  
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).  
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).  
Roundabout Capacity Model: US HCM 6.  
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



# MOVEMENT SUMMARY



Site: [1 (2)] TP (Folder1)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Lime Kiln Rd/Site Access

2030 Total PM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: Lime Kiln Rd          |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 21            | 3.0  | 21            | 3.0  | 0.283     | 7.0         | LOS A            | 1.3               | 34.0      | 0.56       | 0.41           | 0.56                       | 31.7        |
| 8                            | T1   | All MCs   | 27            | 3.0  | 27            | 3.0  | 0.283     | 7.0         | LOS A            | 1.3               | 34.0      | 0.56       | 0.41           | 0.56                       | 32.3        |
| 18                           | R2   | All MCs   | 203           | 3.0  | 203           | 3.0  | 0.283     | 7.0         | LOS A            | 1.3               | 34.0      | 0.56       | 0.41           | 0.56                       | 32.0        |
| Approach                     |      |           | 251           | 3.0  | 251           | 3.0  | 0.283     | 7.0         | LOS A            | 1.3               | 34.0      | 0.56       | 0.41           | 0.56                       | 32.0        |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 251           | 3.0  | 251           | 3.0  | 0.724     | 12.4        | LOS B            | 8.9               | 227.0     | 0.57       | 0.22           | 0.57                       | 29.1        |
| 6                            | T1   | All MCs   | 573           | 3.0  | 573           | 3.0  | 0.724     | 12.4        | LOS B            | 8.9               | 227.0     | 0.57       | 0.22           | 0.57                       | 29.6        |
| 16                           | R2   | All MCs   | 75            | 3.0  | 75            | 3.0  | 0.724     | 12.4        | LOS B            | 8.9               | 227.0     | 0.57       | 0.22           | 0.57                       | 29.4        |
| Approach                     |      |           | 899           | 3.0  | 899           | 3.0  | 0.724     | 12.4        | LOS B            | 8.9               | 227.0     | 0.57       | 0.22           | 0.57                       | 29.5        |
| North: Site Access           |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 47            | 3.0  | 47            | 3.0  | 0.170     | 8.9         | LOS A            | 0.6               | 16.2      | 0.66       | 0.63           | 0.66                       | 30.1        |
| 4                            | T1   | All MCs   | 25            | 3.0  | 25            | 3.0  | 0.170     | 8.9         | LOS A            | 0.6               | 16.2      | 0.66       | 0.63           | 0.66                       | 30.6        |
| 14                           | R2   | All MCs   | 20            | 3.0  | 20            | 3.0  | 0.170     | 8.9         | LOS A            | 0.6               | 16.2      | 0.66       | 0.63           | 0.66                       | 30.4        |
| Approach                     |      |           | 91            | 3.0  | 91            | 3.0  | 0.170     | 8.9         | LOS A            | 0.6               | 16.2      | 0.66       | 0.63           | 0.66                       | 30.3        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 25            | 3.0  | 25            | 3.0  | 0.406     | 8.3         | LOS A            | 2.2               | 56.3      | 0.58       | 0.40           | 0.58                       | 31.2        |
| 2                            | T1   | All MCs   | 312           | 3.0  | 312           | 3.0  | 0.406     | 8.3         | LOS A            | 2.2               | 56.3      | 0.58       | 0.40           | 0.58                       | 31.7        |
| 12                           | R2   | All MCs   | 48            | 3.0  | 48            | 3.0  | 0.406     | 8.3         | LOS A            | 2.2               | 56.3      | 0.58       | 0.40           | 0.58                       | 31.5        |
| Approach                     |      |           | 385           | 3.0  | 385           | 3.0  | 0.406     | 8.3         | LOS A            | 2.2               | 56.3      | 0.58       | 0.40           | 0.58                       | 31.6        |
| All Vehicles                 |      |           | 1626          | 3.0  | 1626          | 3.0  | 0.724     | 10.4        | LOS B            | 8.9               | 227.0     | 0.57       | 0.32           | 0.57                       | 30.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Monday, December 29, 2025 1:01:36 PM

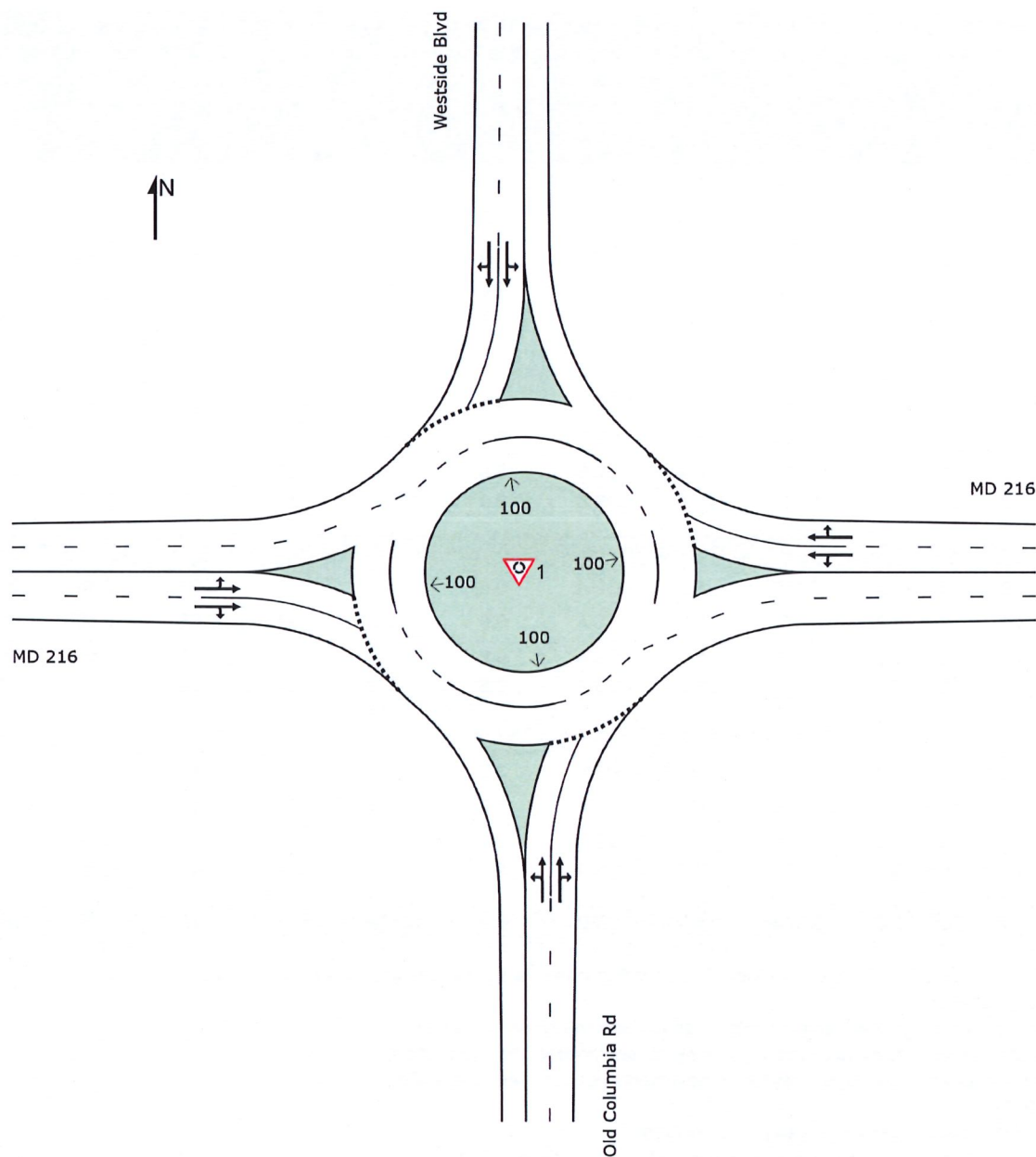
Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGINE\INITIAL\HCM\Int 3.sipx

# SITE LAYOUT

 Site: [1] EA (Int 6)

MD 216 at Westside Blvd  
Existing AM Peak  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.





# MOVEMENT SUMMARY



Site: [1] EA (Int 6)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Westside Blvd  
Existing AM Peak  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: Old Columbia Rd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 9             | 13.0 | 9             | 13.0 | 0.048     | 14.7        | LOS B            | 0.1               | 3.4       | 0.70       | 0.70           | 0.70                       | 29.2        |
| 8                            | T1   | All MCs   | 8             | 0.0  | 8             | 0.0  | 0.048     | 7.8         | LOS A            | 0.1               | 3.4       | 0.70       | 0.70           | 0.70                       | 30.0        |
| 18                           | R2   | All MCs   | 29            | 15.0 | 29            | 15.0 | 0.092     | 13.3        | LOS B            | 0.2               | 5.5       | 0.68       | 0.68           | 0.68                       | 29.6        |
| Approach                     |      |           | 45            | 12.0 | 45            | 12.0 | 0.092     | 12.5        | LOS B            | 0.2               | 5.5       | 0.69       | 0.69           | 0.69                       | 29.6        |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 40            | 17.0 | 40            | 17.0 | 0.507     | 10.2        | LOS B            | 3.0               | 78.8      | 0.49       | 0.28           | 0.49                       | 30.8        |
| 6                            | T1   | All MCs   | 838           | 6.0  | 838           | 6.0  | 0.507     | 9.0         | LOS A            | 3.0               | 78.8      | 0.48       | 0.27           | 0.48                       | 31.9        |
| 16                           | R2   | All MCs   | 246           | 0.0  | 246           | 0.0  | 0.507     | 8.3         | LOS A            | 3.0               | 78.0      | 0.47       | 0.26           | 0.47                       | 31.9        |
| Approach                     |      |           | 1124          | 5.1  | 1124          | 5.1  | 0.507     | 8.9         | LOS A            | 3.0               | 78.8      | 0.48       | 0.27           | 0.48                       | 31.8        |
| North: Westside Blvd         |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 191           | 3.0  | 191           | 3.0  | 0.341     | 10.9        | LOS B            | 1.3               | 34.5      | 0.67       | 0.69           | 0.81                       | 28.8        |
| 4                            | T1   | All MCs   | 10            | 0.0  | 10            | 0.0  | 0.341     | 9.9         | LOS A            | 1.3               | 34.5      | 0.67       | 0.69           | 0.81                       | 29.3        |
| 14                           | R2   | All MCs   | 104           | 0.0  | 104           | 0.0  | 0.184     | 8.7         | LOS A            | 0.7               | 16.7      | 0.64       | 0.63           | 0.64                       | 31.8        |
| Approach                     |      |           | 305           | 1.9  | 305           | 1.9  | 0.341     | 10.1        | LOS B            | 1.3               | 34.5      | 0.66       | 0.67           | 0.75                       | 29.7        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 159           | 6.0  | 159           | 6.0  | 0.501     | 9.5         | LOS A            | 2.9               | 74.8      | 0.54       | 0.35           | 0.55                       | 30.4        |
| 2                            | T1   | All MCs   | 859           | 6.0  | 859           | 6.0  | 0.501     | 9.3         | LOS A            | 2.9               | 74.8      | 0.53       | 0.33           | 0.53                       | 31.5        |
| 12                           | R2   | All MCs   | 11            | 20.0 | 11            | 20.0 | 0.501     | 10.8        | LOS B            | 2.7               | 71.9      | 0.52       | 0.32           | 0.52                       | 31.3        |
| Approach                     |      |           | 1030          | 6.1  | 1030          | 6.1  | 0.501     | 9.3         | LOS A            | 2.9               | 74.8      | 0.53       | 0.34           | 0.54                       | 31.4        |
| All Vehicles                 |      |           | 2504          | 5.3  | 2504          | 5.3  | 0.507     | 9.3         | LOS A            | 3.0               | 78.8      | 0.53       | 0.35           | 0.54                       | 31.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:39:20 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM6.sipx



# MOVEMENT SUMMARY



Site: [1 (2)] EP (Int 6)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Westside Blvd

Existing PM Peak

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: Old Columbia Rd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 22            | 0.0  | 22            | 0.0  | 0.070     | 7.8         | LOS A            | 0.2               | 5.9       | 0.63       | 0.63           | 0.63                       | 30.7        |
| 8                            | T1   | All MCs   | 14            | 0.0  | 14            | 0.0  | 0.070     | 7.8         | LOS A            | 0.2               | 5.9       | 0.63       | 0.63           | 0.63                       | 31.2        |
| 18                           | R2   | All MCs   | 65            | 6.0  | 65            | 6.0  | 0.131     | 9.0         | LOS A            | 0.4               | 10.0      | 0.62       | 0.62           | 0.62                       | 31.5        |
| Approach                     |      |           | 101           | 3.9  | 101           | 3.9  | 0.131     | 8.6         | LOS A            | 0.4               | 10.0      | 0.63       | 0.63           | 0.63                       | 31.3        |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 42            | 12.0 | 42            | 12.0 | 0.417     | 8.4         | LOS A            | 2.3               | 58.7      | 0.42       | 0.23           | 0.42                       | 31.7        |
| 6                            | T1   | All MCs   | 623           | 1.0  | 623           | 1.0  | 0.417     | 7.3         | LOS A            | 2.3               | 58.7      | 0.41       | 0.22           | 0.41                       | 32.6        |
| 16                           | R2   | All MCs   | 310           | 1.0  | 310           | 1.0  | 0.417     | 7.1         | LOS A            | 2.3               | 57.7      | 0.40       | 0.21           | 0.40                       | 32.6        |
| Approach                     |      |           | 975           | 1.5  | 975           | 1.5  | 0.417     | 7.2         | LOS A            | 2.3               | 58.7      | 0.41       | 0.22           | 0.41                       | 32.6        |
| North: Westside Blvd         |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 369           | 1.0  | 369           | 1.0  | 0.500     | 11.7        | LOS B            | 3.0               | 76.3      | 0.70       | 0.72           | 1.02                       | 28.5        |
| 4                            | T1   | All MCs   | 15            | 0.0  | 15            | 0.0  | 0.500     | 11.4        | LOS B            | 3.0               | 76.3      | 0.70       | 0.72           | 1.02                       | 29.0        |
| 14                           | R2   | All MCs   | 172           | 0.0  | 172           | 0.0  | 0.242     | 7.9         | LOS A            | 1.0               | 23.9      | 0.60       | 0.54           | 0.60                       | 32.2        |
| Approach                     |      |           | 557           | 0.7  | 557           | 0.7  | 0.500     | 10.5        | LOS B            | 3.0               | 76.3      | 0.67       | 0.67           | 0.89                       | 29.5        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 135           | 2.0  | 135           | 2.0  | 0.364     | 8.2         | LOS A            | 1.7               | 42.2      | 0.57       | 0.44           | 0.57                       | 30.8        |
| 2                            | T1   | All MCs   | 521           | 2.0  | 521           | 2.0  | 0.364     | 7.9         | LOS A            | 1.7               | 42.2      | 0.56       | 0.42           | 0.56                       | 32.2        |
| 12                           | R2   | All MCs   | 9             | 11.0 | 9             | 11.0 | 0.364     | 9.1         | LOS A            | 1.6               | 41.5      | 0.55       | 0.41           | 0.55                       | 32.1        |
| Approach                     |      |           | 665           | 2.1  | 665           | 2.1  | 0.364     | 8.0         | LOS A            | 1.7               | 42.2      | 0.56       | 0.42           | 0.56                       | 31.9        |
| All Vehicles                 |      |           | 2298          | 1.6  | 2298          | 1.6  | 0.500     | 8.3         | LOS A            | 3.0               | 76.3      | 0.52       | 0.41           | 0.58                       | 31.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:39:20 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM6.sipx



# MOVEMENT SUMMARY



Site: [1 (3)] BA (Int 6)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Westside Blvd

2030 Background AM Peak

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: Old Columbia Rd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 10            | 13.0 | 10            | 13.0 | 0.062     | 17.4        | LOS C            | 0.2               | 4.3       | 0.74       | 0.74           | 0.74                       | 28.6        |
| 8                            | T1   | All MCs   | 9             | 0.0  | 9             | 0.0  | 0.062     | 8.9         | LOS A            | 0.2               | 4.3       | 0.74       | 0.74           | 0.74                       | 29.4        |
| 18                           | R2   | All MCs   | 31            | 15.0 | 31            | 15.0 | 0.115     | 15.8        | LOS C            | 0.2               | 6.5       | 0.72       | 0.72           | 0.72                       | 28.6        |
| Approach                     |      |           | 49            | 11.9 | 49            | 11.9 | 0.115     | 14.7        | LOS B            | 0.2               | 6.5       | 0.73       | 0.73           | 0.73                       | 28.7        |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 43            | 17.0 | 43            | 17.0 | 0.558     | 11.4        | LOS B            | 3.5               | 92.4      | 0.54       | 0.32           | 0.54                       | 30.4        |
| 6                            | T1   | All MCs   | 910           | 6.0  | 910           | 6.0  | 0.558     | 10.1        | LOS B            | 3.6               | 92.4      | 0.53       | 0.31           | 0.53                       | 31.4        |
| 16                           | R2   | All MCs   | 266           | 0.0  | 266           | 0.0  | 0.558     | 9.3         | LOS A            | 3.6               | 91.6      | 0.52       | 0.30           | 0.52                       | 31.5        |
| Approach                     |      |           | 1219          | 5.1  | 1219          | 5.1  | 0.558     | 10.0        | LOS A            | 3.6               | 92.4      | 0.53       | 0.31           | 0.53                       | 31.4        |
| North: Westside Blvd         |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 207           | 3.0  | 207           | 3.0  | 0.397     | 12.8        | LOS B            | 1.7               | 42.3      | 0.70       | 0.76           | 0.92                       | 28.1        |
| 4                            | T1   | All MCs   | 11            | 0.0  | 11            | 0.0  | 0.397     | 11.6        | LOS B            | 1.7               | 42.3      | 0.70       | 0.76           | 0.92                       | 28.6        |
| 14                           | R2   | All MCs   | 113           | 0.0  | 113           | 0.0  | 0.215     | 9.8         | LOS A            | 0.8               | 19.4      | 0.67       | 0.67           | 0.67                       | 31.3        |
| Approach                     |      |           | 331           | 1.9  | 331           | 1.9  | 0.397     | 11.7        | LOS B            | 1.7               | 42.3      | 0.69       | 0.73           | 0.84                       | 29.1        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 173           | 6.0  | 173           | 6.0  | 0.563     | 10.9        | LOS B            | 4.6               | 120.6     | 0.61       | 0.47           | 0.77                       | 29.9        |
| 2                            | T1   | All MCs   | 948           | 6.0  | 948           | 6.0  | 0.563     | 10.7        | LOS B            | 4.6               | 120.6     | 0.59       | 0.46           | 0.75                       | 31.0        |
| 12                           | R2   | All MCs   | 12            | 20.0 | 12            | 20.0 | 0.563     | 12.3        | LOS B            | 4.5               | 117.0     | 0.59       | 0.45           | 0.73                       | 30.8        |
| Approach                     |      |           | 1133          | 6.1  | 1133          | 6.1  | 0.563     | 10.7        | LOS B            | 4.6               | 120.6     | 0.60       | 0.46           | 0.75                       | 30.8        |
| All Vehicles                 |      |           | 2732          | 5.3  | 2732          | 5.3  | 0.563     | 10.6        | LOS B            | 4.6               | 120.6     | 0.58       | 0.43           | 0.66                       | 30.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:39:20 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGINE\INITIAL\HCM6.sipx



# MOVEMENT SUMMARY



Site: [1 (4)] BP (Int 6)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Westside Blvd  
2030 Background PM Peak  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
|------------------------------|------|-----------|--------------|------|---------------|------|-----------|-------------|------------------|-------------------|--------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |        | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total      | HV ] | [ Total       | HV ] |           |             |                  | [ Veh.            | Dist ] |            |                |                            |             |
|                              |      |           | veh/h        | %    | veh/h         | %    | v/c       | sec         |                  | veh               | ft     |            |                |                            | mph         |
| South: Old Columbia Rd       |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 3                            | L2   | All MCs   | 24           | 0.0  | 24            | 0.0  | 0.082     | 8.6         | LOS A            | 0.3               | 6.9    | 0.67       | 0.67           | 0.67                       | 30.3        |
| 8                            | T1   | All MCs   | 15           | 0.0  | 15            | 0.0  | 0.082     | 8.6         | LOS A            | 0.3               | 6.9    | 0.67       | 0.67           | 0.67                       | 30.8        |
| 18                           | R2   | All MCs   | 70           | 6.0  | 70            | 6.0  | 0.154     | 10.1        | LOS B            | 0.4               | 11.6   | 0.66       | 0.66           | 0.66                       | 31.0        |
| Approach                     |      |           | 109          | 3.8  | 109           | 3.8  | 0.154     | 9.6         | LOS A            | 0.4               | 11.6   | 0.66       | 0.66           | 0.66                       | 30.8        |
| East: MD 216                 |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 1                            | L2   | All MCs   | 45           | 12.0 | 45            | 12.0 | 0.465     | 9.2         | LOS A            | 2.7               | 68.9   | 0.46       | 0.26           | 0.46                       | 31.3        |
| 6                            | T1   | All MCs   | 690          | 1.0  | 690           | 1.0  | 0.465     | 8.0         | LOS A            | 2.7               | 68.9   | 0.45       | 0.26           | 0.45                       | 32.3        |
| 16                           | R2   | All MCs   | 336          | 1.0  | 336           | 1.0  | 0.465     | 7.8         | LOS A            | 2.7               | 67.9   | 0.44       | 0.25           | 0.44                       | 32.2        |
| Approach                     |      |           | 1071         | 1.5  | 1071          | 1.5  | 0.465     | 8.0         | LOS A            | 2.7               | 68.9   | 0.45       | 0.25           | 0.45                       | 32.2        |
| North: Westside Blvd         |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 7                            | L2   | All MCs   | 400          | 1.0  | 400           | 1.0  | 0.578     | 14.3        | LOS B            | 3.9               | 97.5   | 0.75       | 0.84           | 1.21                       | 27.6        |
| 4                            | T1   | All MCs   | 16           | 0.0  | 16            | 0.0  | 0.578     | 14.1        | LOS B            | 3.9               | 97.5   | 0.75       | 0.84           | 1.21                       | 28.0        |
| 14                           | R2   | All MCs   | 187          | 0.0  | 187           | 0.0  | 0.281     | 8.9         | LOS A            | 1.1               | 27.8   | 0.64       | 0.59           | 0.64                       | 31.7        |
| Approach                     |      |           | 603          | 0.7  | 603           | 0.7  | 0.578     | 12.7        | LOS B            | 3.9               | 97.5   | 0.72       | 0.76           | 1.03                       | 28.7        |
| West: MD 216                 |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 5                            | L2   | All MCs   | 146          | 2.0  | 146           | 2.0  | 0.410     | 9.1         | LOS A            | 2.1               | 53.8   | 0.61       | 0.51           | 0.68                       | 30.5        |
| 2                            | T1   | All MCs   | 567          | 2.0  | 567           | 2.0  | 0.410     | 8.8         | LOS A            | 2.1               | 53.8   | 0.59       | 0.49           | 0.66                       | 31.8        |
| 12                           | R2   | All MCs   | 10           | 11.0 | 10            | 11.0 | 0.410     | 10.1        | LOS B            | 2.1               | 52.4   | 0.59       | 0.48           | 0.65                       | 31.7        |
| Approach                     |      |           | 724          | 2.1  | 724           | 2.1  | 0.410     | 8.9         | LOS A            | 2.1               | 53.8   | 0.60       | 0.49           | 0.67                       | 31.5        |
| All Vehicles                 |      |           | 2507         | 1.6  | 2507          | 1.6  | 0.578     | 9.4         | LOS A            | 3.9               | 97.5   | 0.57       | 0.46           | 0.66                       | 31.0        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Roundabout LOS Method: Same as Sign Control.  
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.  
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).  
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).  
Roundabout Capacity Model: US HCM 6.  
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



# MOVEMENT SUMMARY



Site: [1 (5)] TA (Int 6)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Westside Blvd  
2030 Total AM Peak  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: Old Columbia Rd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 10            | 13.0 | 10            | 13.0 | 0.068     | 19.4        | LOS C            | 0.2               | 4.6       | 0.76       | 0.76           | 0.76                       | 28.2        |
| 8                            | T1   | All MCs   | 9             | 0.0  | 9             | 0.0  | 0.068     | 9.5         | LOS A            | 0.2               | 4.6       | 0.76       | 0.76           | 0.76                       | 28.9        |
| 18                           | R2   | All MCs   | 31            | 15.0 | 31            | 15.0 | 0.127     | 17.6        | LOS C            | 0.2               | 6.9       | 0.74       | 0.74           | 0.74                       | 28.0        |
| Approach                     |      |           | 49            | 11.9 | 49            | 11.9 | 0.127     | 16.3        | LOS C            | 0.2               | 6.9       | 0.75       | 0.75           | 0.75                       | 28.2        |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 43            | 17.0 | 43            | 17.0 | 0.582     | 11.9        | LOS B            | 4.3               | 112.3     | 0.56       | 0.35           | 0.60                       | 30.2        |
| 6                            | T1   | All MCs   | 962           | 6.0  | 962           | 6.0  | 0.582     | 10.6        | LOS B            | 4.3               | 112.3     | 0.55       | 0.33           | 0.58                       | 31.2        |
| 16                           | R2   | All MCs   | 266           | 0.0  | 266           | 0.0  | 0.582     | 9.7         | LOS A            | 3.9               | 99.3      | 0.54       | 0.31           | 0.54                       | 31.3        |
| Approach                     |      |           | 1270          | 5.1  | 1270          | 5.1  | 0.582     | 10.5        | LOS B            | 4.3               | 112.3     | 0.55       | 0.33           | 0.57                       | 31.2        |
| North: Westside Blvd         |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 207           | 3.0  | 207           | 3.0  | 0.418     | 13.9        | LOS B            | 1.7               | 44.6      | 0.72       | 0.80           | 0.97                       | 27.8        |
| 4                            | T1   | All MCs   | 11            | 0.0  | 11            | 0.0  | 0.418     | 12.5        | LOS B            | 1.7               | 44.6      | 0.72       | 0.80           | 0.97                       | 28.2        |
| 14                           | R2   | All MCs   | 113           | 0.0  | 113           | 0.0  | 0.227     | 10.4        | LOS B            | 0.8               | 20.3      | 0.69       | 0.69           | 0.69                       | 31.0        |
| Approach                     |      |           | 331           | 1.9  | 331           | 1.9  | 0.418     | 12.6        | LOS B            | 1.7               | 44.6      | 0.71       | 0.76           | 0.88                       | 28.8        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 173           | 6.0  | 173           | 6.0  | 0.601     | 11.9        | LOS B            | 5.8               | 151.7     | 0.64       | 0.53           | 0.88                       | 29.6        |
| 2                            | T1   | All MCs   | 1026          | 6.0  | 1026          | 6.0  | 0.601     | 11.6        | LOS B            | 5.8               | 151.7     | 0.63       | 0.51           | 0.86                       | 30.6        |
| 12                           | R2   | All MCs   | 12            | 20.0 | 12            | 20.0 | 0.601     | 13.2        | LOS B            | 5.7               | 148.8     | 0.62       | 0.50           | 0.84                       | 30.4        |
| Approach                     |      |           | 1211          | 6.1  | 1211          | 6.1  | 0.601     | 11.6        | LOS B            | 5.8               | 151.7     | 0.63       | 0.52           | 0.86                       | 30.4        |
| All Vehicles                 |      |           | 2862          | 5.3  | 2862          | 5.3  | 0.601     | 11.3        | LOS B            | 5.8               | 151.7     | 0.61       | 0.47           | 0.73                       | 30.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Roundabout LOS Method: Same as Sign Control.  
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.  
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).  
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).  
Roundabout Capacity Model: US HCM 6.  
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



# MOVEMENT SUMMARY



Site: [1 (6)] TP (Int 6)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Westside Blvd

2030 Total PM Peak

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |        |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|--------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | Flows  |      | [ Total HV ]  |      |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            |             |
|                              |      |           | veh/h  | %    | veh/h         | %    |           |             |                  |                   |           |            |                |                            |             |
| South: Old Columbia Rd       |      |           |        |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 24     | 0.0  | 24            | 0.0  | 0.087     | 9.2         | LOS A            | 0.3               | 7.3       | 0.69       | 0.69           | 0.69                       | 30.1        |
| 8                            | T1   | All MCs   | 15     | 0.0  | 15            | 0.0  | 0.087     | 9.2         | LOS A            | 0.3               | 7.3       | 0.69       | 0.69           | 0.69                       | 30.6        |
| 18                           | R2   | All MCs   | 70     | 6.0  | 70            | 6.0  | 0.165     | 10.9        | LOS B            | 0.5               | 12.2      | 0.68       | 0.68           | 0.68                       | 30.7        |
| Approach                     |      |           | 109    | 3.8  | 109           | 3.8  | 0.165     | 10.3        | LOS B            | 0.5               | 12.2      | 0.68       | 0.68           | 0.68                       | 30.6        |
| East: MD 216                 |      |           |        |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 45     | 12.0 | 45            | 12.0 | 0.500     | 9.8         | LOS A            | 3.1               | 77.9      | 0.48       | 0.27           | 0.48                       | 31.1        |
| 6                            | T1   | All MCs   | 771    | 1.0  | 771           | 1.0  | 0.500     | 8.6         | LOS A            | 3.1               | 77.9      | 0.48       | 0.27           | 0.48                       | 32.1        |
| 16                           | R2   | All MCs   | 336    | 1.0  | 336           | 1.0  | 0.500     | 8.3         | LOS A            | 3.0               | 76.8      | 0.46       | 0.26           | 0.46                       | 32.0        |
| Approach                     |      |           | 1153   | 1.4  | 1153          | 1.4  | 0.500     | 8.5         | LOS A            | 3.1               | 77.9      | 0.47       | 0.27           | 0.47                       | 32.0        |
| North: Westside Blvd         |      |           |        |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 400    | 1.0  | 400           | 1.0  | 0.620     | 16.7        | LOS C            | 4.2               | 106.8     | 0.78       | 0.91           | 1.34                       | 26.9        |
| 4                            | T1   | All MCs   | 16     | 0.0  | 16            | 0.0  | 0.620     | 16.3        | LOS C            | 4.2               | 106.8     | 0.78       | 0.91           | 1.34                       | 27.3        |
| 14                           | R2   | All MCs   | 187    | 0.0  | 187           | 0.0  | 0.303     | 9.8         | LOS A            | 1.2               | 30.6      | 0.66       | 0.64           | 0.70                       | 31.3        |
| Approach                     |      |           | 603    | 0.7  | 603           | 0.7  | 0.620     | 14.5        | LOS B            | 4.2               | 106.8     | 0.75       | 0.83           | 1.14                       | 28.1        |
| West: MD 216                 |      |           |        |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 146    | 2.0  | 146           | 2.0  | 0.445     | 9.7         | LOS A            | 2.6               | 64.8      | 0.63       | 0.55           | 0.76                       | 30.3        |
| 2                            | T1   | All MCs   | 630    | 2.0  | 630           | 2.0  | 0.445     | 9.4         | LOS A            | 2.6               | 64.8      | 0.61       | 0.53           | 0.74                       | 31.5        |
| 12                           | R2   | All MCs   | 10     | 11.0 | 10            | 11.0 | 0.445     | 10.7        | LOS B            | 2.5               | 63.7      | 0.61       | 0.52           | 0.73                       | 31.5        |
| Approach                     |      |           | 787    | 2.1  | 787           | 2.1  | 0.445     | 9.5         | LOS A            | 2.6               | 64.8      | 0.62       | 0.53           | 0.75                       | 31.3        |
| All Vehicles                 |      |           | 2652   | 1.6  | 2652          | 1.6  | 0.620     | 10.3        | LOS B            | 4.2               | 106.8     | 0.59       | 0.49           | 0.71                       | 30.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | [sidrasolutions.com](http://sidrasolutions.com)

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Monday, December 29, 2025 1:05:03 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM6.sipx

# SITE LAYOUT

 Site: [1] EA (Int 7)

MD 216 at Maple Lawn Blvd

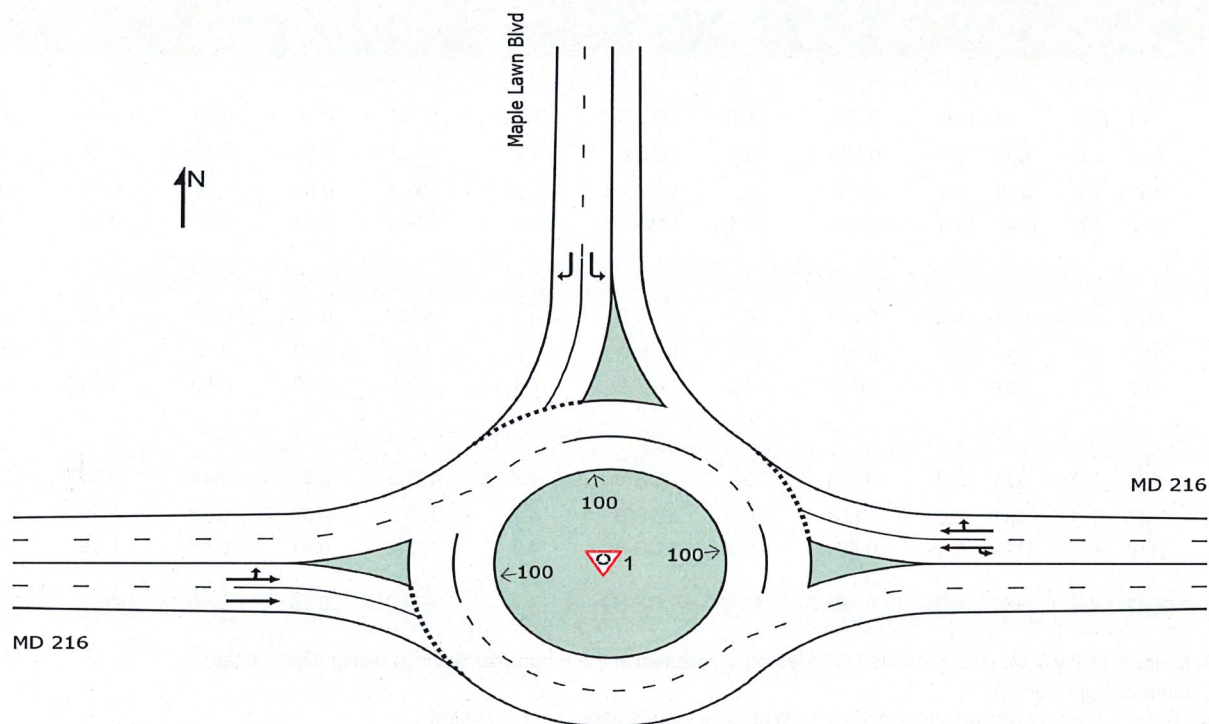
Existing AM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | [sidrasolutions.com](http://sidrasolutions.com)

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Created: Tuesday, December 16, 2025 1:46:00 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGINEERING\HCM\7.sipx



# MOVEMENT SUMMARY



Site: [1] EA (Int 7)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Maple Lawn Blvd

Existing AM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand        |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | Flows         |      | HV            |      |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            |             |
|                              |      |           | [ Total veh/h | %    | [ Total veh/h | %    |           |             |                  |                   |           |            |                |                            |             |
|                              |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1u                           | U    | All MCs   | 10            | 11.0 | 10            | 11.0 | 0.593     | 11.3        | LOS B            | 4.1               | 107.3     | 0.55       | 0.30           | 0.55                       | 30.4        |
| 6                            | T1   | All MCs   | 903           | 5.0  | 903           | 5.0  | 0.593     | 10.6        | LOS B            | 4.2               | 107.3     | 0.54       | 0.30           | 0.54                       | 31.3        |
| 16                           | R2   | All MCs   | 433           | 1.0  | 433           | 1.0  | 0.593     | 9.9         | LOS A            | 4.2               | 106.3     | 0.53       | 0.29           | 0.53                       | 31.2        |
| Approach                     |      |           | 1347          | 3.8  | 1347          | 3.8  | 0.593     | 10.4        | LOS B            | 4.2               | 107.3     | 0.54       | 0.29           | 0.54                       | 31.2        |
|                              |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| North: Maple Lawn Blvd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 264           | 4.0  | 264           | 4.0  | 0.467     | 14.1        | LOS B            | 2.1               | 55.3      | 0.72       | 0.80           | 1.03                       | 27.6        |
| 14                           | R2   | All MCs   | 233           | 2.0  | 233           | 2.0  | 0.437     | 14.0        | LOS B            | 2.0               | 51.2      | 0.72       | 0.80           | 0.99                       | 29.5        |
| Approach                     |      |           | 497           | 3.1  | 497           | 3.1  | 0.467     | 14.0        | LOS B            | 2.1               | 55.3      | 0.72       | 0.80           | 1.01                       | 28.4        |
|                              |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 173           | 3.0  | 173           | 3.0  | 0.564     | 10.7        | LOS B            | 4.7               | 122.2     | 0.62       | 0.49           | 0.80                       | 29.9        |
| 2                            | T1   | All MCs   | 947           | 7.0  | 947           | 7.0  | 0.564     | 10.9        | LOS B            | 4.7               | 122.2     | 0.60       | 0.48           | 0.78                       | 30.9        |
| Approach                     |      |           | 1119          | 6.4  | 1119          | 6.4  | 0.564     | 10.9        | LOS B            | 4.7               | 122.2     | 0.61       | 0.48           | 0.78                       | 30.7        |
| All Vehicles                 |      |           | 2962          | 4.6  | 2962          | 4.6  | 0.593     | 11.2        | LOS B            | 4.7               | 122.2     | 0.59       | 0.45           | 0.71                       | 30.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 9:24:46 AM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGINITIAL\HCM7.sipx



# MOVEMENT SUMMARY



Site: [1 (2)] EP (Int 7)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Maple Lawn Blvd

Existing PM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1u                           | U    | All MCs   | 9             | 0.0  | 9             | 0.0  | 0.485     | 7.9         | LOS A            | 3.1               | 78.6      | 0.38       | 0.18           | 0.38                       | 31.9        |
| 6                            | T1   | All MCs   | 855           | 1.0  | 855           | 1.0  | 0.485     | 7.9         | LOS A            | 3.1               | 78.6      | 0.37       | 0.18           | 0.37                       | 32.5        |
| 16                           | R2   | All MCs   | 339           | 0.0  | 339           | 0.0  | 0.485     | 7.6         | LOS A            | 3.1               | 77.0      | 0.36       | 0.17           | 0.36                       | 32.3        |
| Approach                     |      |           | 1203          | 0.7  | 1203          | 0.7  | 0.485     | 7.8         | LOS A            | 3.1               | 78.6      | 0.37       | 0.17           | 0.37                       | 32.4        |
| North: Maple Lawn Blvd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 450           | 1.0  | 450           | 1.0  | 0.683     | 19.5        | LOS C            | 5.2               | 131.7     | 0.82       | 1.00           | 1.53                       | 26.0        |
| 14                           | R2   | All MCs   | 98            | 0.0  | 98            | 0.0  | 0.162     | 7.9         | LOS A            | 0.6               | 14.7      | 0.62       | 0.60           | 0.62                       | 32.2        |
| Approach                     |      |           | 548           | 0.8  | 548           | 0.8  | 0.683     | 17.4        | LOS C            | 5.2               | 131.7     | 0.78       | 0.93           | 1.37                       | 26.9        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 115           | 1.0  | 115           | 1.0  | 0.532     | 11.3        | LOS B            | 3.9               | 98.0      | 0.68       | 0.64           | 0.95                       | 29.9        |
| 2                            | T1   | All MCs   | 835           | 2.0  | 835           | 2.0  | 0.532     | 11.1        | LOS B            | 3.9               | 98.0      | 0.67       | 0.62           | 0.93                       | 30.9        |
| Approach                     |      |           | 950           | 1.9  | 950           | 1.9  | 0.532     | 11.1        | LOS B            | 3.9               | 98.0      | 0.67       | 0.62           | 0.93                       | 30.8        |
| All Vehicles                 |      |           | 2701          | 1.1  | 2701          | 1.1  | 0.683     | 10.9        | LOS B            | 5.2               | 131.7     | 0.56       | 0.48           | 0.77                       | 30.6        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stoeline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 9:24:46 AM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM7.sipx



MOVEMENT SUMMARY

Site: [1 (3)] BA (Int 7)  
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Maple Lawn Blvd  
2030 Background AM Peak Hour  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand        |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | Flows         |      | [ Total HV ]  |      |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            |             |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  |                   |           |            |                |                            |             |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1u                           | U    | All MCs   | 11            | 11.0 | 11            | 11.0 | 0.678     | 14.0        | LOS B            | 8.8               | 229.4     | 0.68       | 0.54           | 0.94                       | 29.4        |
| 6                            | T1   | All MCs   | 978           | 5.0  | 978           | 5.0  | 0.678     | 13.2        | LOS B            | 8.8               | 229.4     | 0.67       | 0.53           | 0.92                       | 30.2        |
| 16                           | R2   | All MCs   | 500           | 1.0  | 500           | 1.0  | 0.678     | 12.3        | LOS B            | 8.6               | 218.3     | 0.65       | 0.50           | 0.87                       | 30.2        |
| Approach                     |      |           | 1490          | 3.7  | 1490          | 3.7  | 0.678     | 12.9        | LOS B            | 8.8               | 229.4     | 0.66       | 0.52           | 0.91                       | 30.2        |
| North: Maple Lawn Blvd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 290           | 4.0  | 290           | 4.0  | 0.553     | 17.7        | LOS C            | 2.7               | 70.0      | 0.76       | 0.89           | 1.19                       | 26.5        |
| 14                           | R2   | All MCs   | 255           | 2.0  | 255           | 2.0  | 0.516     | 17.2        | LOS C            | 2.5               | 63.7      | 0.77       | 0.87           | 1.14                       | 28.3        |
| Approach                     |      |           | 544           | 3.1  | 544           | 3.1  | 0.553     | 17.5        | LOS C            | 2.7               | 70.0      | 0.76       | 0.88           | 1.16                       | 27.3        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 207           | 3.0  | 207           | 3.0  | 0.638     | 12.9        | LOS B            | 6.9               | 181.0     | 0.70       | 0.65           | 1.07                       | 29.0        |
| 2                            | T1   | All MCs   | 1025          | 7.0  | 1025          | 7.0  | 0.638     | 13.0        | LOS B            | 6.9               | 181.0     | 0.69       | 0.63           | 1.06                       | 30.0        |
| Approach                     |      |           | 1232          | 6.3  | 1232          | 6.3  | 0.638     | 13.0        | LOS B            | 6.9               | 181.0     | 0.69       | 0.63           | 1.06                       | 29.8        |
| All Vehicles                 |      |           | 3266          | 4.6  | 3266          | 4.6  | 0.678     | 13.7        | LOS B            | 8.8               | 229.4     | 0.69       | 0.62           | 1.01                       | 29.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Roundabout LOS Method: Same as Sign Control.  
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.  
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).  
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).  
Roundabout Capacity Model: US HCM 6.  
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



# MOVEMENT SUMMARY



Site: [1 (4)] BP (Int 7)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Maple Lawn Blvd  
2030 Background PM Peak Hour  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |        |               |        |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |        | Arrival Flows |        | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| East: MD 216                 |      |           |               |        |               |        |           |             |                  |                   |           |            |                |                            |             |
| 1u                           | U    | All MCs   | 10            | 0.0    | 10            | 0.0    | 0.533     | 8.8         | LOS A            | 3.7               | 92.3      | 0.43       | 0.21           | 0.43                       | 31.5        |
| 6                            | T1   | All MCs   | 926           | 1.0    | 926           | 1.0    | 0.533     | 8.7         | LOS A            | 3.7               | 92.3      | 0.43       | 0.21           | 0.43                       | 32.1        |
| 16                           | R2   | All MCs   | 371           | 0.0    | 371           | 0.0    | 0.533     | 8.4         | LOS A            | 3.6               | 90.7      | 0.41       | 0.20           | 0.41                       | 32.0        |
| Approach                     |      |           | 1307          | 0.7    | 1307          | 0.7    | 0.533     | 8.6         | LOS A            | 3.7               | 92.3      | 0.42       | 0.21           | 0.42                       | 32.1        |
| North: Maple Lawn Blvd       |      |           |               |        |               |        |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 512           | 1.0    | 512           | 1.0    | 0.828     | 31.1        | LOS D            | 8.4               | 212.6     | 0.90       | 1.27           | 2.18                       | 23.0        |
| 14                           | R2   | All MCs   | 121           | 0.0    | 121           | 0.0    | 0.215     | 9.1         | LOS A            | 0.8               | 19.7      | 0.65       | 0.64           | 0.65                       | 31.6        |
| Approach                     |      |           | 634           | 0.8    | 634           | 0.8    | 0.828     | 26.9        | LOS D            | 8.4               | 212.6     | 0.85       | 1.15           | 1.89                       | 24.2        |
| West: MD 216                 |      |           |               |        |               |        |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 128           | 1.0    | 128           | 1.0    | 0.612     | 14.0        | LOS B            | 5.1               | 129.8     | 0.75       | 0.78           | 1.19                       | 28.9        |
| 2                            | T1   | All MCs   | 903           | 2.0    | 903           | 2.0    | 0.612     | 13.6        | LOS B            | 5.2               | 131.2     | 0.74       | 0.76           | 1.17                       | 29.9        |
| Approach                     |      |           | 1031          | 1.9    | 1031          | 1.9    | 0.612     | 13.7        | LOS B            | 5.2               | 131.2     | 0.74       | 0.76           | 1.18                       | 29.7        |
| All Vehicles                 |      |           | 2971          | 1.1    | 2971          | 1.1    | 0.828     | 14.3        | LOS B            | 8.4               | 212.6     | 0.63       | 0.60           | 1.00                       | 29.2        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com  
Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:45:11 PM  
Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM7.sipx



# MOVEMENT SUMMARY



Site: [1 (5)] TA (Int 7)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Maple Lawn Blvd

2030 Total AM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
|------------------------------|------|-----------|--------------|------|---------------|------|-----------|-------------|------------------|-------------------|--------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |        | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total      | HV ] | [ Total       | HV ] |           |             |                  | [ Veh.            | Dist ] |            |                |                            |             |
|                              |      |           | veh/h        | %    | veh/h         | %    |           |             |                  | veh               | ft     |            |                |                            |             |
| East: MD 216                 |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 1u                           | U    | All MCs   | 11           | 11.0 | 11            | 11.0 | 0.696     | 14.7        | LOS B            | 9.9               | 257.9  | 0.71       | 0.60           | 1.04                       | 29.2        |
| 6                            | T1   | All MCs   | 1006         | 5.0  | 1006          | 5.0  | 0.696     | 13.8        | LOS B            | 9.9               | 257.9  | 0.70       | 0.58           | 1.02                       | 29.9        |
| 16                           | R2   | All MCs   | 500          | 1.0  | 500           | 1.0  | 0.696     | 12.9        | LOS B            | 9.8               | 249.7  | 0.68       | 0.55           | 0.97                       | 29.9        |
| Approach                     |      |           | 1517         | 3.7  | 1517          | 3.7  | 0.696     | 13.5        | LOS B            | 9.9               | 257.9  | 0.69       | 0.57           | 1.00                       | 29.9        |
| North: Maple Lawn Blvd       |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 7                            | L2   | All MCs   | 290          | 4.0  | 290           | 4.0  | 0.568     | 18.6        | LOS C            | 2.8               | 71.9   | 0.77       | 0.90           | 1.22                       | 26.2        |
| 14                           | R2   | All MCs   | 281          | 2.0  | 281           | 2.0  | 0.584     | 20.2        | LOS C            | 3.1               | 77.5   | 0.80       | 0.93           | 1.27                       | 27.3        |
| Approach                     |      |           | 570          | 3.0  | 570           | 3.0  | 0.584     | 19.4        | LOS C            | 3.1               | 77.5   | 0.79       | 0.92           | 1.24                       | 26.7        |
| West: MD 216                 |      |           |              |      |               |      |           |             |                  |                   |        |            |                |                            |             |
| 5                            | L2   | All MCs   | 215          | 3.0  | 215           | 3.0  | 0.680     | 14.2        | LOS B            | 8.5               | 223.3  | 0.75       | 0.72           | 1.22                       | 28.5        |
| 2                            | T1   | All MCs   | 1098         | 7.0  | 1098          | 7.0  | 0.680     | 14.4        | LOS B            | 8.5               | 224.0  | 0.73       | 0.71           | 1.20                       | 29.5        |
| Approach                     |      |           | 1312         | 6.3  | 1312          | 6.3  | 0.680     | 14.3        | LOS B            | 8.5               | 224.0  | 0.74       | 0.71           | 1.20                       | 29.3        |
| All Vehicles                 |      |           | 3400         | 4.6  | 3400          | 4.6  | 0.696     | 14.8        | LOS B            | 9.9               | 257.9  | 0.73       | 0.68           | 1.12                       | 29.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Monday, December 29, 2025 1:07:57 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM\7.sipx

# MOVEMENT SUMMARY



Site: [1 (6)] TP (Int 7)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at Maple Lawn Blvd  
2030 Total PM Peak Hour  
Site Category: (None)  
Roundabout  
Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1u                           | U    | All MCs   | 10            | 0.0  | 10            | 0.0  | 0.571     | 9.6         | LOS A            | 4.1               | 103.7     | 0.49       | 0.25           | 0.49                       | 31.2        |
| 6                            | T1   | All MCs   | 996           | 1.0  | 996           | 1.0  | 0.571     | 9.6         | LOS A            | 4.1               | 103.7     | 0.48       | 0.25           | 0.48                       | 31.7        |
| 16                           | R2   | All MCs   | 371           | 0.0  | 371           | 0.0  | 0.571     | 9.2         | LOS A            | 4.1               | 102.2     | 0.47       | 0.24           | 0.47                       | 31.6        |
| Approach                     |      |           | 1378          | 0.7  | 1378          | 0.7  | 0.571     | 9.5         | LOS A            | 4.1               | 103.7     | 0.48       | 0.24           | 0.48                       | 31.7        |
| North: Maple Lawn Blvd       |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 512           | 1.0  | 512           | 1.0  | 0.881     | 39.2        | LOS E            | 9.9               | 249.1     | 0.93       | 1.40           | 2.56                       | 21.3        |
| 14                           | R2   | All MCs   | 132           | 0.0  | 132           | 0.0  | 0.248     | 10.2        | LOS B            | 0.9               | 22.8      | 0.67       | 0.67           | 0.67                       | 31.1        |
| Approach                     |      |           | 644           | 0.8  | 644           | 0.8  | 0.881     | 33.2        | LOS D            | 9.9               | 249.1     | 0.88       | 1.25           | 2.17                       | 22.7        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 146           | 1.0  | 146           | 1.0  | 0.649     | 15.2        | LOS C            | 5.9               | 150.4     | 0.78       | 0.83           | 1.29                       | 28.4        |
| 2                            | T1   | All MCs   | 947           | 2.0  | 947           | 2.0  | 0.649     | 14.8        | LOS B            | 6.0               | 152.7     | 0.77       | 0.81           | 1.28                       | 29.4        |
| Approach                     |      |           | 1093          | 1.9  | 1093          | 1.9  | 0.649     | 14.9        | LOS B            | 6.0               | 152.7     | 0.77       | 0.81           | 1.28                       | 29.3        |
| All Vehicles                 |      |           | 3114          | 1.1  | 3114          | 1.1  | 0.881     | 16.3        | LOS C            | 9.9               | 249.1     | 0.66       | 0.65           | 1.11                       | 28.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com  
Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Monday, December 29, 2025 1:07:55 PM  
Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM7.sipx



# SITE LAYOUT

 Site: [1] EA (Int 8)

MD 216 at US 29 SB Ramp/Scaggsville Rd

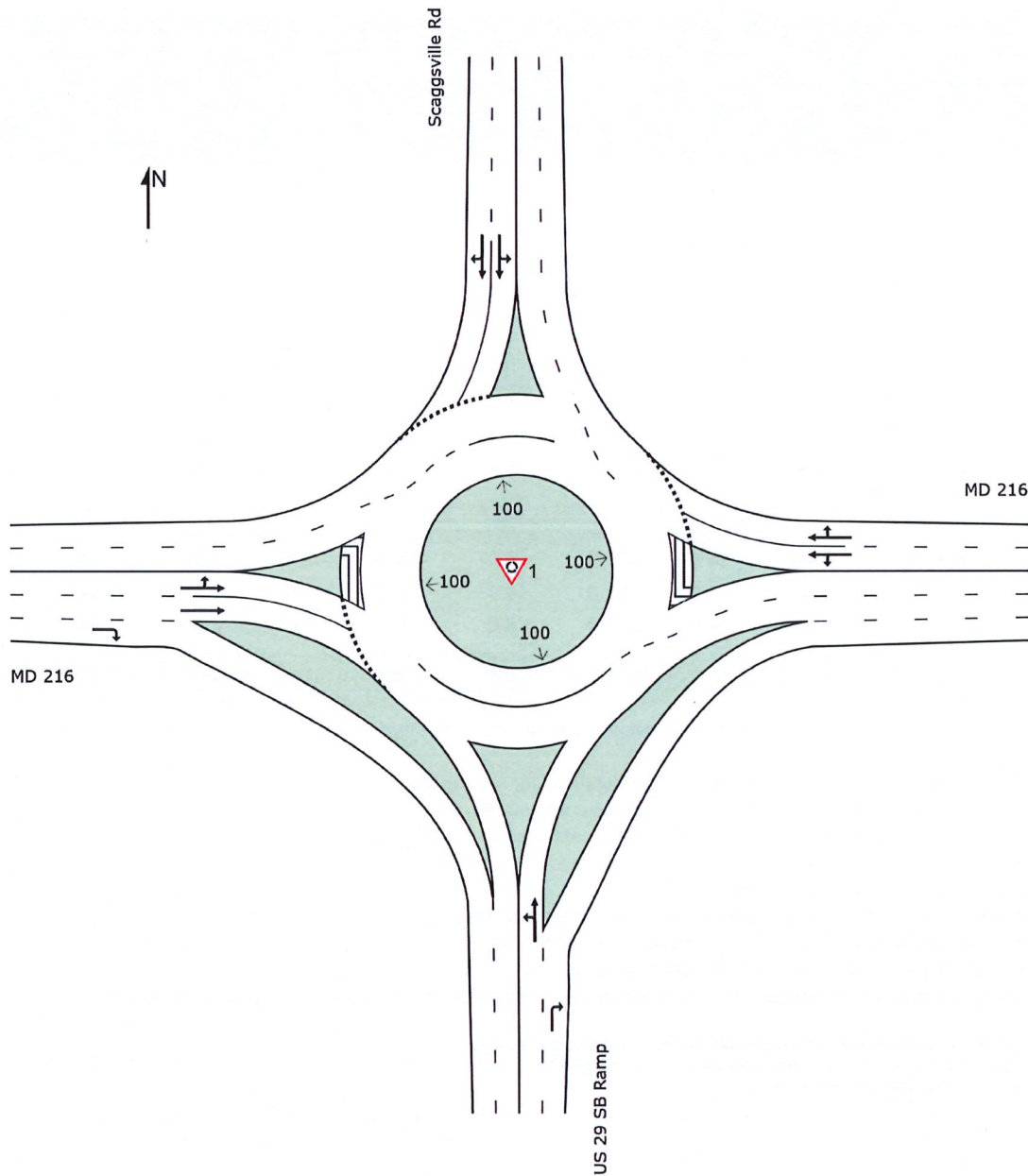
Existing AM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



# MOVEMENT SUMMARY



Site: [1] EA (Int 8)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at US 29 SB Ramp/Scaggsville Rd

Existing AM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
|------------------------------|------|-----------|-----------------|----------|-----------------|----------|-----------|-------------|------------------|-------------------|-------------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows    |          | Arrival Flows   |          | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |             | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h ] | [ HV % ] | [ Total veh/h ] | [ HV % ] | v/c       | sec         |                  | [ Veh. veh ]      | [ Dist ft ] |            |                |                            | mph         |
| South: US 29 SB Ramp         |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 3                            | L2   | All MCs   | 292             | 5.0      | 292             | 5.0      | 0.174     | 0.0         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 33.1        |
| 8                            | T1   | All MCs   | 23              | 0.0      | 23              | 0.0      | 0.174     | 0.0         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 33.9        |
| 18                           | R2   | All MCs   | 1125            | 2.0      | 1125            | 2.0      | 0.685     | 0.5         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 36.3        |
| Approach                     |      |           | 1440            | 2.6      | 1440            | 2.6      | 0.685     | 0.4         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 35.5        |
| East: MD 216                 |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 1                            | L2   | All MCs   | 165             | 1.0      | 165             | 1.0      | 0.620     | 12.0        | LOS B            | 6.6               | 168.2       | 0.71       | 0.65           | 1.07                       | 29.6        |
| 6                            | T1   | All MCs   | 1030            | 3.0      | 1030            | 3.0      | 0.620     | 12.3        | LOS B            | 6.6               | 168.2       | 0.71       | 0.65           | 1.07                       | 30.4        |
| 16                           | R2   | All MCs   | 38              | 0.0      | 38              | 0.0      | 0.620     | 11.9        | LOS B            | 6.6               | 168.2       | 0.71       | 0.65           | 1.07                       | 30.4        |
| Approach                     |      |           | 1232            | 2.6      | 1232            | 2.6      | 0.620     | 12.2        | LOS B            | 6.6               | 168.2       | 0.71       | 0.65           | 1.07                       | 30.3        |
| North: Scaggsville Rd        |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 7                            | L2   | All MCs   | 43              | 3.0      | 43              | 3.0      | 0.133     | 12.9        | LOS B            | 0.4               | 9.6         | 0.76       | 0.76           | 0.76                       | 28.1        |
| 4                            | T1   | All MCs   | 10              | 0.0      | 10              | 0.0      | 0.133     | 10.5        | LOS B            | 0.4               | 9.6         | 0.78       | 0.78           | 0.78                       | 28.3        |
| 14                           | R2   | All MCs   | 23              | 15.0     | 23              | 15.0     | 0.133     | 21.9        | LOS C            | 0.3               | 8.2         | 0.78       | 0.78           | 0.78                       | 27.8        |
| Approach                     |      |           | 76              | 6.2      | 76              | 6.2      | 0.133     | 15.1        | LOS C            | 0.4               | 9.6         | 0.77       | 0.77           | 0.77                       | 28.0        |
| West: MD 216                 |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 5                            | L2   | All MCs   | 22              | 0.0      | 22              | 0.0      | 0.475     | 7.9         | LOS A            | 2.7               | 71.0        | 0.50       | 0.30           | 0.50                       | 31.6        |
| 2                            | T1   | All MCs   | 994             | 7.0      | 994             | 7.0      | 0.475     | 8.6         | LOS A            | 2.7               | 71.0        | 0.50       | 0.30           | 0.50                       | 32.1        |
| 12                           | R2   | All MCs   | 192             | 5.0      | 192             | 5.0      | 0.120     | 0.0         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 36.4        |
| Approach                     |      |           | 1208            | 6.6      | 1208            | 6.6      | 0.475     | 7.3         | LOS A            | 2.7               | 71.0        | 0.42       | 0.25           | 0.42                       | 32.7        |
| All Vehicles                 |      |           | 3956            | 3.9      | 3956            | 3.9      | 0.685     | 6.5         | LOS A            | 6.6               | 168.2       | 0.37       | 0.30           | 0.48                       | 32.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 9:29:11 AM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM8.sipx



# MOVEMENT SUMMARY



Site: [1 (2)] EP (Int 8)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at US 29 SB Ramp/Scaggsville Rd

Existing PM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |              |      |               |      |           |             |                  |                   |       |            |                |                            |             |
|------------------------------|------|-----------|--------------|------|---------------|------|-----------|-------------|------------------|-------------------|-------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |       | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total      | HV ] | [ Total       | HV ] |           | [ Veh.      |                  | Dist ]            |       |            |                |                            |             |
|                              |      |           | veh/h        | %    | veh/h         | %    | v/c       | sec         |                  | veh               | ft    |            |                |                            |             |
| South: US 29 SB Ramp         |      |           |              |      |               |      |           |             |                  |                   |       |            |                |                            |             |
| 3                            | L2   | All MCs   | 230          | 1.0  | 230           | 1.0  | 0.138     | 0.0         | LOS A            | 0.0               | 0.0   | 0.00       | 0.00           | 0.00                       | 33.4        |
| 8                            | T1   | All MCs   | 29           | 0.0  | 29            | 0.0  | 0.138     | 0.0         | LOS A            | 0.0               | 0.0   | 0.00       | 0.00           | 0.00                       | 34.0        |
| 18                           | R2   | All MCs   | 611          | 1.0  | 611           | 1.0  | 0.369     | 0.1         | LOS A            | 0.0               | 0.0   | 0.00       | 0.00           | 0.00                       | 36.6        |
| Approach                     |      |           | 869          | 1.0  | 869           | 1.0  | 0.369     | 0.1         | LOS A            | 0.0               | 0.0   | 0.00       | 0.00           | 0.00                       | 35.6        |
| East: MD 216                 |      |           |              |      |               |      |           |             |                  |                   |       |            |                |                            |             |
| 1                            | L2   | All MCs   | 134          | 2.0  | 134           | 2.0  | 0.551     | 10.3        | LOS B            | 4.6               | 115.8 | 0.63       | 0.50           | 0.80                       | 30.4        |
| 6                            | T1   | All MCs   | 952          | 1.0  | 952           | 1.0  | 0.551     | 10.2        | LOS B            | 4.6               | 115.8 | 0.63       | 0.50           | 0.80                       | 31.3        |
| 16                           | R2   | All MCs   | 68           | 0.0  | 68            | 0.0  | 0.551     | 10.1        | LOS B            | 4.6               | 115.6 | 0.63       | 0.50           | 0.80                       | 31.2        |
| Approach                     |      |           | 1154         | 1.1  | 1154          | 1.1  | 0.551     | 10.2        | LOS B            | 4.6               | 115.8 | 0.63       | 0.50           | 0.80                       | 31.2        |
| North: Scaggsville Rd        |      |           |              |      |               |      |           |             |                  |                   |       |            |                |                            |             |
| 7                            | L2   | All MCs   | 66           | 2.0  | 66            | 2.0  | 0.156     | 10.8        | LOS B            | 0.5               | 12.2  | 0.71       | 0.71           | 0.71                       | 28.7        |
| 4                            | T1   | All MCs   | 11           | 0.0  | 11            | 0.0  | 0.134     | 11.1        | LOS B            | 0.4               | 11.1  | 0.73       | 0.73           | 0.73                       | 31.0        |
| 14                           | R2   | All MCs   | 42           | 0.0  | 42            | 0.0  | 0.134     | 11.1        | LOS B            | 0.4               | 11.1  | 0.73       | 0.73           | 0.73                       | 30.8        |
| Approach                     |      |           | 119          | 1.1  | 119           | 1.1  | 0.156     | 10.9        | LOS B            | 0.5               | 12.2  | 0.72       | 0.72           | 0.72                       | 29.6        |
| West: MD 216                 |      |           |              |      |               |      |           |             |                  |                   |       |            |                |                            |             |
| 5                            | L2   | All MCs   | 57           | 2.0  | 57            | 2.0  | 0.437     | 7.7         | LOS A            | 2.5               | 63.9  | 0.47       | 0.28           | 0.47                       | 31.8        |
| 2                            | T1   | All MCs   | 950          | 1.0  | 950           | 1.0  | 0.437     | 7.6         | LOS A            | 2.5               | 63.9  | 0.47       | 0.28           | 0.47                       | 32.6        |
| 12                           | R2   | All MCs   | 243          | 0.0  | 243           | 0.0  | 0.145     | 0.0         | LOS A            | 0.0               | 0.0   | 0.00       | 0.00           | 0.00                       | 36.5        |
| Approach                     |      |           | 1250         | 0.9  | 1250          | 0.9  | 0.437     | 6.1         | LOS A            | 2.5               | 63.9  | 0.38       | 0.22           | 0.38                       | 33.2        |
| All Vehicles                 |      |           | 3393         | 1.0  | 3393          | 1.0  | 0.551     | 6.1         | LOS A            | 4.6               | 115.8 | 0.38       | 0.28           | 0.44                       | 32.9        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 9:29:11 AM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM8.sipx



# MOVEMENT SUMMARY



Site: [1 (3)] BA (Int 8)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at US 29 SB Ramp/Scaggsville Rd

2030 Background AM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
|------------------------------|------|-----------|-----------------|----------|-----------------|----------|-----------|-------------|------------------|-------------------|-------------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows    |          | Arrival Flows   |          | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |             | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h ] | [ HV % ] | [ Total veh/h ] | [ HV % ] | v/c       | sec         |                  | [ Veh. veh ]      | [ Dist ft ] |            |                |                            | mph         |
| South: US 29 SB Ramp         |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 3                            | L2   | All MCs   | 316             | 5.0      | 316             | 5.0      | 0.189     | 0.1         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 33.1        |
| 8                            | T1   | All MCs   | 25              | 0.0      | 25              | 0.0      | 0.189     | 0.1         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 33.9        |
| 18                           | R2   | All MCs   | 1218            | 2.0      | 1218            | 2.0      | 0.742     | 0.6         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 36.1        |
| Approach                     |      |           | 1559            | 2.6      | 1559            | 2.6      | 0.742     | 0.5         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 35.4        |
| East: MD 216                 |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 1                            | L2   | All MCs   | 178             | 1.0      | 178             | 1.0      | 0.707     | 15.1        | LOS C            | 9.8               | 249.4       | 0.81       | 0.84           | 1.43                       | 28.4        |
| 6                            | T1   | All MCs   | 1147            | 3.0      | 1147            | 3.0      | 0.707     | 15.4        | LOS C            | 9.8               | 249.4       | 0.81       | 0.85           | 1.43                       | 29.2        |
| 16                           | R2   | All MCs   | 41              | 0.0      | 41              | 0.0      | 0.707     | 15.0        | LOS B            | 9.7               | 249.1       | 0.81       | 0.85           | 1.43                       | 29.2        |
| Approach                     |      |           | 1366            | 2.6      | 1366            | 2.6      | 0.707     | 15.4        | LOS C            | 9.8               | 249.4       | 0.81       | 0.85           | 1.43                       | 29.1        |
| North: Scaggsville Rd        |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 7                            | L2   | All MCs   | 47              | 3.0      | 47              | 3.0      | 0.171     | 15.8        | LOS C            | 0.5               | 12.1        | 0.80       | 0.80           | 0.80                       | 27.2        |
| 4                            | T1   | All MCs   | 11              | 0.0      | 11              | 0.0      | 0.171     | 12.7        | LOS B            | 0.5               | 12.1        | 0.81       | 0.81           | 0.82                       | 26.9        |
| 14                           | R2   | All MCs   | 25              | 15.0     | 25              | 15.0     | 0.171     | 27.5        | LOS D            | 0.4               | 10.0        | 0.82       | 0.82           | 0.83                       | 26.1        |
| Approach                     |      |           | 83              | 6.2      | 83              | 6.2      | 0.171     | 18.7        | LOS C            | 0.5               | 12.1        | 0.80       | 0.81           | 0.81                       | 26.9        |
| West: MD 216                 |      |           |                 |          |                 |          |           |             |                  |                   |             |            |                |                            |             |
| 5                            | L2   | All MCs   | 24              | 0.0      | 24              | 0.0      | 0.524     | 8.9         | LOS A            | 3.1               | 82.9        | 0.56       | 0.34           | 0.56                       | 31.1        |
| 2                            | T1   | All MCs   | 1076            | 7.0      | 1076            | 7.0      | 0.524     | 9.6         | LOS A            | 3.2               | 83.3        | 0.56       | 0.34           | 0.56                       | 31.6        |
| 12                           | R2   | All MCs   | 212             | 5.0      | 212             | 5.0      | 0.133     | 0.0         | LOS A            | 0.0               | 0.0         | 0.00       | 0.00           | 0.00                       | 36.4        |
| Approach                     |      |           | 1313            | 6.5      | 1312            | 6.5      | 0.524     | 8.1         | LOS A            | 3.2               | 83.3        | 0.47       | 0.29           | 0.47                       | 32.3        |
| All Vehicles                 |      |           | 4320            | 3.9      | 4320            | 3.9      | 0.742     | 7.9         | LOS A            | 9.8               | 249.4       | 0.41       | 0.37           | 0.61                       | 32.0        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:49:18 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM8.sipx



# MOVEMENT SUMMARY



Site: [1 (4)] BP (Int 8)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at US 29 SB Ramp/Scaggsville Rd

2030 Background PM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: US 29 SB Ramp         |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 249           | 1.0  | 249           | 1.0  | 0.149     | 0.0         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 33.4        |
| 8                            | T1   | All MCs   | 31            | 0.0  | 31            | 0.0  | 0.149     | 0.0         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 34.0        |
| 18                           | R2   | All MCs   | 661           | 1.0  | 661           | 1.0  | 0.399     | 0.1         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 36.6        |
| Approach                     |      |           | 941           | 1.0  | 941           | 1.0  | 0.399     | 0.1         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 35.6        |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 145           | 2.0  | 145           | 2.0  | 0.614     | 12.0        | LOS B            | 6.5               | 163.9     | 0.70       | 0.63           | 1.04                       | 29.8        |
| 6                            | T1   | All MCs   | 1036          | 1.0  | 1036          | 1.0  | 0.614     | 11.8        | LOS B            | 6.5               | 163.9     | 0.70       | 0.63           | 1.04                       | 30.6        |
| 16                           | R2   | All MCs   | 74            | 0.0  | 74            | 0.0  | 0.614     | 11.7        | LOS B            | 6.5               | 163.9     | 0.70       | 0.63           | 1.03                       | 30.6        |
| Approach                     |      |           | 1255          | 1.1  | 1255          | 1.1  | 0.614     | 11.8        | LOS B            | 6.5               | 163.9     | 0.70       | 0.63           | 1.04                       | 30.5        |
| North: Scaggsville Rd        |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 71            | 2.0  | 71            | 2.0  | 0.186     | 12.4        | LOS B            | 0.6               | 14.4      | 0.75       | 0.75           | 0.75                       | 28.1        |
| 4                            | T1   | All MCs   | 12            | 0.0  | 12            | 0.0  | 0.160     | 12.7        | LOS B            | 0.5               | 13.1      | 0.77       | 0.77           | 0.77                       | 30.3        |
| 14                           | R2   | All MCs   | 45            | 0.0  | 45            | 0.0  | 0.160     | 12.7        | LOS B            | 0.5               | 13.1      | 0.77       | 0.77           | 0.77                       | 30.1        |
| Approach                     |      |           | 129           | 1.1  | 129           | 1.1  | 0.186     | 12.6        | LOS B            | 0.6               | 14.4      | 0.76       | 0.76           | 0.76                       | 29.0        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 62            | 2.0  | 62            | 2.0  | 0.481     | 8.5         | LOS A            | 2.9               | 73.6      | 0.52       | 0.31           | 0.52                       | 31.5        |
| 2                            | T1   | All MCs   | 1029          | 1.0  | 1029          | 1.0  | 0.481     | 8.4         | LOS A            | 2.9               | 73.7      | 0.52       | 0.31           | 0.52                       | 32.2        |
| 12                           | R2   | All MCs   | 289           | 0.0  | 289           | 0.0  | 0.172     | 0.0         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 36.5        |
| Approach                     |      |           | 1380          | 0.8  | 1380          | 0.8  | 0.481     | 6.6         | LOS A            | 2.9               | 73.7      | 0.41       | 0.25           | 0.41                       | 33.0        |
| All Vehicles                 |      |           | 3704          | 1.0  | 3704          | 1.0  | 0.614     | 6.9         | LOS A            | 6.5               | 163.9     | 0.42       | 0.33           | 0.53                       | 32.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Tuesday, December 16, 2025 1:49:49 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM8.sipx



# MOVEMENT SUMMARY



Site: [1 (5)] TA (Int 8)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at US 29 SB Ramp/Scaggsville Rd

2030 Total AM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: US 29 SB Ramp         |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 330           | 5.0  | 330           | 5.0  | 0.199     | 0.1         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 33.2        |
| 8                            | T1   | All MCs   | 31            | 0.0  | 31            | 0.0  | 0.199     | 0.1         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 33.9        |
| 18                           | R2   | All MCs   | 1218          | 2.0  | 1218          | 2.0  | 0.742     | 0.6         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 36.1        |
| Approach                     |      |           | 1578          | 2.6  | 1578          | 2.6  | 0.742     | 0.5         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 35.4        |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 178           | 1.0  | 178           | 1.0  | 0.731     | 16.4        | LOS C            | 10.7              | 272.2     | 0.85       | 0.92           | 1.56                       | 28.0        |
| 6                            | T1   | All MCs   | 1160          | 3.0  | 1160          | 3.0  | 0.731     | 16.7        | LOS C            | 10.7              | 272.2     | 0.85       | 0.92           | 1.56                       | 28.7        |
| 16                           | R2   | All MCs   | 48            | 0.0  | 48            | 0.0  | 0.731     | 16.2        | LOS C            | 10.6              | 271.8     | 0.85       | 0.92           | 1.57                       | 28.7        |
| Approach                     |      |           | 1386          | 2.6  | 1386          | 2.6  | 0.731     | 16.6        | LOS C            | 10.7              | 272.2     | 0.85       | 0.92           | 1.56                       | 28.6        |
| North: Scaggsville Rd        |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 69            | 3.0  | 69            | 3.0  | 0.255     | 18.3        | LOS C            | 0.7               | 18.8      | 0.82       | 0.84           | 0.90                       | 26.4        |
| 4                            | T1   | All MCs   | 33            | 0.0  | 33            | 0.0  | 0.255     | 16.4        | LOS C            | 0.7               | 18.8      | 0.84       | 0.86           | 0.94                       | 26.5        |
| 14                           | R2   | All MCs   | 25            | 15.0 | 25            | 15.0 | 0.255     | 34.4        | LOS D            | 0.7               | 17.2      | 0.84       | 0.87           | 0.95                       | 26.1        |
| Approach                     |      |           | 127           | 4.6  | 127           | 4.6  | 0.255     | 20.5        | LOS C            | 0.7               | 18.8      | 0.83       | 0.85           | 0.92                       | 26.4        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 24            | 0.0  | 24            | 0.0  | 0.566     | 10.0        | LOS B            | 4.8               | 125.5     | 0.62       | 0.49           | 0.80                       | 30.6        |
| 2                            | T1   | All MCs   | 1113          | 7.0  | 1113          | 7.0  | 0.566     | 10.8        | LOS B            | 4.8               | 125.7     | 0.62       | 0.49           | 0.80                       | 31.1        |
| 12                           | R2   | All MCs   | 249           | 5.0  | 249           | 5.0  | 0.156     | 0.0         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 36.4        |
| Approach                     |      |           | 1385          | 6.5  | 1385          | 6.5  | 0.566     | 8.9         | LOS A            | 4.8               | 125.7     | 0.51       | 0.40           | 0.66                       | 31.9        |
| All Vehicles                 |      |           | 4477          | 3.9  | 4477          | 3.9  | 0.742     | 8.7         | LOS A            | 10.7              | 272.2     | 0.44       | 0.43           | 0.71                       | 31.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Monday, December 29, 2025 1:12:12 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM8.sipx



# MOVEMENT SUMMARY



Site: [1 (6)] TP (Int 8)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

MD 216 at US 29 SB Ramp/Scaggsville Rd

2030 Total PM Peak Hour

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

| Vehicle Movement Performance |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
|------------------------------|------|-----------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|------------|----------------|----------------------------|-------------|
| Mov ID                       | Turn | Mov Class | Demand Flows  |      | Arrival Flows |      | Deg. Satn | Aver. Delay | Level of Service | 95% Back Of Queue |           | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed |
|                              |      |           | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |            |                |                            | mph         |
| South: US 29 SB Ramp         |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 3                            | L2   | All MCs   | 285           | 1.0  | 285           | 1.0  | 0.176     | 0.0         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 33.4        |
| 8                            | T1   | All MCs   | 46            | 0.0  | 46            | 0.0  | 0.176     | 0.0         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 34.1        |
| 18                           | R2   | All MCs   | 661           | 1.0  | 661           | 1.0  | 0.399     | 0.1         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 36.6        |
| Approach                     |      |           | 992           | 1.0  | 992           | 1.0  | 0.399     | 0.1         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 35.5        |
| East: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 1                            | L2   | All MCs   | 145           | 2.0  | 145           | 2.0  | 0.670     | 14.1        | LOS B            | 8.2               | 206.6     | 0.78       | 0.78           | 1.30                       | 29.0        |
| 6                            | T1   | All MCs   | 1070          | 1.0  | 1070          | 1.0  | 0.670     | 14.0        | LOS B            | 8.2               | 206.8     | 0.78       | 0.78           | 1.30                       | 29.7        |
| 16                           | R2   | All MCs   | 91            | 0.0  | 91            | 0.0  | 0.670     | 13.8        | LOS B            | 8.2               | 206.8     | 0.78       | 0.78           | 1.30                       | 29.7        |
| Approach                     |      |           | 1306          | 1.0  | 1306          | 1.0  | 0.670     | 14.0        | LOS B            | 8.2               | 206.8     | 0.78       | 0.78           | 1.30                       | 29.7        |
| North: Scaggsville Rd        |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 7                            | L2   | All MCs   | 81            | 2.0  | 81            | 2.0  | 0.225     | 14.0        | LOS B            | 0.7               | 17.5      | 0.77       | 0.78           | 0.79                       | 27.6        |
| 4                            | T1   | All MCs   | 21            | 0.0  | 21            | 0.0  | 0.198     | 14.3        | LOS B            | 0.7               | 16.3      | 0.79       | 0.79           | 0.79                       | 29.7        |
| 14                           | R2   | All MCs   | 45            | 0.0  | 45            | 0.0  | 0.198     | 14.3        | LOS B            | 0.7               | 16.3      | 0.79       | 0.79           | 0.79                       | 29.5        |
| Approach                     |      |           | 147           | 1.1  | 147           | 1.1  | 0.225     | 14.1        | LOS B            | 0.7               | 17.5      | 0.78       | 0.78           | 0.79                       | 28.5        |
| West: MD 216                 |      |           |               |      |               |      |           |             |                  |                   |           |            |                |                            |             |
| 5                            | L2   | All MCs   | 62            | 2.0  | 62            | 2.0  | 0.500     | 8.9         | LOS A            | 3.1               | 77.3      | 0.55       | 0.34           | 0.55                       | 31.3        |
| 2                            | T1   | All MCs   | 1051          | 1.0  | 1051          | 1.0  | 0.500     | 8.8         | LOS A            | 3.1               | 77.3      | 0.55       | 0.34           | 0.55                       | 32.0        |
| 12                           | R2   | All MCs   | 310           | 0.0  | 310           | 0.0  | 0.185     | 0.1         | LOS A            | 0.0               | 0.0       | 0.00       | 0.00           | 0.00                       | 36.5        |
| Approach                     |      |           | 1423          | 0.8  | 1423          | 0.8  | 0.500     | 6.9         | LOS A            | 3.1               | 77.3      | 0.43       | 0.27           | 0.43                       | 32.8        |
| All Vehicles                 |      |           | 3868          | 0.9  | 3868          | 0.9  | 0.670     | 7.8         | LOS A            | 8.2               | 206.8     | 0.45       | 0.39           | 0.63                       | 32.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 10.0 | Copyright © 2000-2025 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: THE TRAFFIC GROUP, INC. | Licence: PLUS / 1PC | Processed: Monday, December 29, 2025 1:11:52 PM

Project: F:\2025\2025-1031\_Maple Lawn West 2025\ENGIN\INITIAL\HCM8.sipx

# Economic Impact and Cost of Services Analysis of the Proposed Maple Lawn West Residential Development

---

*Prepared for*  
**G & R Maple Lawn, Inc.**  
and  
**Greenbaum Enterprises**

Darius Irani, Ph.D., Chief Economist  
Shelby Francis, Research Manager

February 10<sup>th</sup>, 2026



Towson, Maryland 21252 | 410-704-3326 | [www.towson.edu/resi](http://www.towson.edu/resi)



## Executive Summary

Maple Lawn is an approximately 600 acre commercial and residential, mixed-use development in Howard County, Maryland, currently consisting of 1,308 homes including single-family homes, townhouses, and condominiums as well as 1,770,869 sq. ft. of retail and other commercial space. Greenebaum Enterprises is proposing to revise the final phase of Maple Lawn to add 221 homes including single-family homes ("Maple Lawn West") to an already-approved 32 single-family homes. Also, 260 apartments will be added in the business district. Additional commercial development expansion in Maple Lawn will consist of over 89,143 sq. ft. of new commercial space.

G&R Maple Lawn, Inc. and Greenebaum Enterprises, the developer of Maple Lawn, contracted with Towson University's Regional Economic Studies Institute (RESI) to conduct a cost of services analysis for the proposed developments as well as an economic contribution and impact analysis of the proposed development. The study area for both analyses is Howard County.

The cost of services analysis details estimates of the costs of public services provided by Howard County and tax revenues incurred and gained from proposed developments in Maple Lawn West. RESI's analysis found that proposed developments will support more tax revenue than the services provided to them will cost:

- The proposed residential (Maple Lawn West and the business district) development is expected to net an annual surplus of just over \$818,000.
  - For the proposed single-family homes, the net annual tax surplus is \$2.24M
  - For the proposed apartment (including the MIHU units), the net annual tax surplus is -\$1.42M

The cost of services analysis also provides estimates of the present value of tax revenue and cost of services over 30 years from the proposed residential (Maple Lawn West and the business district) development. The results were mixed.

- For the proposed single-family homes, the 30-year present value of the net annual tax surplus is nearly \$50 million
- For the proposed Apartment, the 30-year present value of the net annual tax surplus is nearly -\$160 million

This section provides the one-time school surcharge fee applied to new residential construction in Howard County.

- The proposed Maple Lawn West and business district residential development will generate over \$10.2 million in school surcharge fees paid to Howard County for the construction and maintenance of the county's public schools.

The economic contribution and impact analysis section provides estimated economic impacts of the proposed Maple Lawn West development and residential development in the business district. sources and data provided by Greenbaum Enterprises and additional available public data



sources and inputs were developed for an IMPLAN analysis. IMPLAN is an industry-recognized economic modeling tool. Based on the results of the IMPLAN analysis:

- The economic impact of the proposed Maple Lawn West Developments and the residential development in the business district is approximately 680 jobs, \$137 million in output, and \$56 million in employee compensation.

## Introduction

RESI was tasked with estimating the economic and fiscal contribution of the existing Maple Lawn Development in Howard County as well as the future economic and fiscal impacts of the proposed developments in Maple Lawn. Maple Lawn is a 604-acre mixed-use development in Fulton, MD. The current development consists of 1,308 housing units ranging from single-family homes to townhouses and apartments, and 1,770,869 sq. ft. of retail and commercial space.

The development is well connected in terms of walking paths and sidewalks. There are numerous open spaces that are functional and well connected to the residential community. There is also a community center with a large community pool.

The proposed development plan in Maple Lawn West is for 253 single family homes single-family homes as well as 260 apartments to be located in the business district of which 39 of the apartments will be for rent to households making 60 percent of Howard County's median household income. Given the scarcity of undeveloped land in the County, Maple Lawn's proposed density of residential use along with planned opens spaces achieves two goals: it maximizes the assessable value of the land and provides a wider spectrum of housing affordability. Moreover, the proposed development, as currently planned, is designed similar to the existing development, tying the two areas together.

In the study, RESI estimated the economic impact of the proposed residential (Maple Lawn West and the business district) development in Maple Lawn West

## Cost of Services Analysis

To understand the fiscal effects that this residential development will have on the county, RESI prepared a cost of services analysis (COSA). The purpose of a COSA is to estimate the costs and revenues that are incurred and gained with the establishment and/or expansion of a development. For this analysis, county tax revenues and public expenditures were estimated and contrasted for the planned development broken down by single-family homes and apartments.

To undertake the COSA for the proposed residential development, RESI estimated both the real property tax revenues for the single-family home and the apartment as well as the income tax for the new residents of the residential development. Additionally, RESI estimated county costs associated with the residential development. To facilitate the analysis, RESI made several assumptions that will be identified in the relevant portions of the analysis.

For the proposed residential development, RESI based the property tax revenue on the home prices, which are on average approximately 30 percent higher than average home price in Howard County.

Typical lending criteria require that no more than 30 percent of gross monthly income goes towards home mortgage (including insurance and taxes). Based on this lending requirement and the average home prices in Maple Lawn West, RESI was able to estimate the average projected household income in Maple Lawn West.

RESI was provided with the proposed rent for the apartments in the business district and using the same assumptions about monthly rent and income as well an assumption of the value of the apartments, RESI was able to calculate the average projected household income the proposed apartment development.

After calculating the average household income in the proposed residential development and working on the assumption that taxable income is 83 percent of household income, RESI calculated the personal income tax revenue per household in the development.

The proposed residential development support property and income tax revenues for the Howard County Government. Figure 1 below shows that while the planned development is estimated to support \$10.0 million.

**Figure 1: Estimated Annual Property and Income Tax Revenues Paid to Howard County**

|               | Single Family Homes | Apartments         |
|---------------|---------------------|--------------------|
| Real Property | \$5,252,280         | \$2,159,040        |
| Income        | \$1,883,685         | \$745,526          |
| <b>Total</b>  | <b>\$7,135,965</b>  | <b>\$2,904,566</b> |

Sources: Howard County Department of Finance, Howard County Public School System, IMPLAN, RESI, Greenebaum Enterprises, U.S. Census Bureau, Energy Information Administration (EIA)

In addition to supporting tax revenues in Howard County, the residential development utilizes services provided by the County government. RESI estimated the cost of these services for the existing development and the planned development. RESI used general funds allocations from Howard County's FY 2025 approved budget to estimate the cost of services such as public schools, public safety, parks, and libraries.

RESI estimated the number of students who will reside in the planned development. These data were multiplied by the cost-per-pupil expenditures in Howard County. The cost of services excluding school (K-12) per capita was used to capture the balance of the costs associated with residents living in Howard County. This cost was multiplied by the average household size in Howard County to determine the cost per household and then multiplied by the number of new households in the residential development.

The estimated cost of services is presented in Figure 2 below.



**Figure 2: Estimated Annual Costs of Services Provided by Howard County**

|                       | Single Family Homes | Apartments         |
|-----------------------|---------------------|--------------------|
| Public School         | \$1,731,265         | 1,080,045          |
| Exclude Public School | \$3,161,594         | \$3,249,593        |
| <b>Total</b>          | <b>\$4,892,859</b>  | <b>\$4,329,068</b> |

Sources: Howard County Department of Finance, Howard County Public School System, IMPLAN, RESI, Greenebaum Enterprises, U.S. Census Bureau, EIA

A comparison of the total income and property tax revenues shown in Figure and the total cost of services in Figure shows that local tax revenues exceed the cost of services incurred by the County. This surplus of tax revenue over costs for both the existing and planned developments at Maple Lawn is shown in Figure 3 below.

**Figure 3: Estimated Annual Surplus of Tax Revenue over Cost of Services to Howard County**

|                   | Single Family Homes | Apartments           |
|-------------------|---------------------|----------------------|
| Tax Revenue       | \$7,135,965         | \$2,904,566          |
| Cost of Services  | \$4,892,859         | \$4,329,068          |
| <b>Difference</b> | <b>\$2,243,106</b>  | <b>(\$1,424,548)</b> |

Sources: Howard County Department of Finance, Howard County Public School System, IMPLAN, RESI, Greenebaum Enterprises, U.S. Census Bureau, EIA

The future development is estimated to support over \$0.8 million in surplus revenues over County costs.

Once Maple Lawn's proposed residential developments are completed, they will support tax revenues and require services on an annual basis. To better interpret these annual totals, RESI calculated their present value over 30 years. Present value is the current value of a future sum of money, accounting for interest.<sup>1</sup> RESI assumed a 3 percent discount rate and the assumed growth rates for each of the revenue and cost sources are in the parentheses. Figure 4 below shows estimates of the 30-year present value of tax revenue from Maple Lawn's proposed residential development.

**Figure 4: 30-Year Present Value of Maple Lawn's Proposed Residential Development's Tax Revenue**

|                            | Single Family Homes  | Apartments           |
|----------------------------|----------------------|----------------------|
| Real Property Taxes (6.6%) | \$280,389,314        | \$88,478,775         |
| Income Taxes (3.8%)        | \$57,353,281         | \$22,365,787         |
| <b>Total</b>               | <b>\$337,742,595</b> | <b>\$110,844,562</b> |

Sources: Howard County Department of Finance, Howard County Public School System, IMPLAN, RESI, Greenebaum Enterprises, U.S. Census Bureau, EIA

<sup>1</sup> David R. Henderson, "Present Value," The Library of Economics and Liberty, accessed February 23, 2021, <https://www.econlib.org/library/Enc/PresentValue.html>.

Figure 5 below shows the estimated 30-year present value of the cost of services for Maple Lawn's proposed developments.

**Figure 5: 30-Year Present Value of Maple Lawn's Proposed Residential Development's Cost of Services**

|                               | Single Family Homes  | Apartments           |
|-------------------------------|----------------------|----------------------|
| Public Schools (4.7%)         | \$67,588,782         | \$42,165,087         |
| Exclude Public School (8.15%) | \$220,744,092        | \$226,851,636        |
| <b>Total</b>                  | <b>\$288,332,874</b> | <b>\$269,016,722</b> |

Sources: Howard County Department of Finance, Howard County Public School System, IMPLAN, RESI, Greenebaum Enterprises, U.S. Census Bureau, EIA

Figure 6 below shows the surplus of the 30-year present value tax revenue over the 30-year present value cost of services for Maple Lawn's proposed developments.

**Figure 6: Difference Between 30-Year Present Value of Maple Lawn's Residential Proposed Development's Tax Revenue and Cost of Services**

|                        | Single Family Homes | Apartments             |
|------------------------|---------------------|------------------------|
| Total Tax Revenue      | \$337,742,595       | \$110,844,562          |
| Total Cost of Services | \$288,332,874       | \$269,016,722          |
| <b>Total</b>           | <b>\$49,409,721</b> | <b>\$(158,172,161)</b> |

Sources: Howard County Department of Finance, Howard County Public School System, IMPLAN, RESI, Greenebaum Enterprises, U.S. Census Bureau, EIA

In addition to annual taxes, Howard County charges a one-time school surcharge fee for newly built residences based on the home's gross square footage. Revenue from this surcharge is used in the construction, renovation, and maintenance of Howard County's public schools. Figure 7 below estimates the total school surcharge fee for Maple Lawn's planned residential development.

**Figure 7: Estimated School Surcharge Fees to Howard County from the Proposed Maple Lawn Residential Development**

|                        | Units      | Total School Surcharge Fee |
|------------------------|------------|----------------------------|
| Apartments             | 221        | \$1,675,577                |
| Single Family Attached | 253        | \$8,450,200                |
| MIHU Apartment         | 39         | \$98,445                   |
| <b>Total</b>           | <b>505</b> | <b>\$10,224,223</b>        |

Sources: Howard County Department of Finance, RESI



This estimate uses a charge of \$8.35 per square foot applicable for any construction after December 31, 2025.

## Economic Contribution and Impact Analysis

The current and planned developments at Maple Lawn do not only provide tax revenues and fees to the County government. Maple Lawn residents and resident businesses also support activity in the local economy. To estimate these effects, RESI conducted economic and fiscal contribution and impact analyses for the Maple Lawn proposed residential development. The analysis was conducted using the 2024 IMPLAN model for Howard County, MD.

IMPLAN is an industry standard input-output modeling tool. IMPLAN is based on economic multipliers, or the additional economic activity that occurs after an initial transaction. Consider the following example: if a resident of Maple Lawn hires a company to repaint a room in the home, the fee that household pays the painting company can be used to buy supplies (such as paint and paintbrushes) and/or to pay employees. In turn, these suppliers can purchase the supplies that they need and/or pay their employees. The employees can then make purchases to support their households, for example on rent or a mortgage, at the grocery store, for recreation, etc.

These three types of spending are economic impacts. The **direct impact** is the initial transaction (the Maple Lawn resident paying the painting company); the **indirect impacts** occur when supplies are purchased; the **induced impacts** are spending that stems from employee wages. The sum of these impacts is the **total impact**. In this analysis, economic impacts are measured in terms of employment, output, and employee compensation. For this report, the 2024 IMPLAN model for Howard County was used.

The economic impact analysis examined the economic activity associated with the construction of the proposed residential development and the spending by future residents of Maple Lawn. For this analysis, data on the number and type of housing units in Maple Lawn's proposed residential development was provided by Greenebaum Enterprises. To develop inputs into the IMPLAN model, RESI estimated household income levels for new Maple Lawn west residents using data from the U.S. Census Bureau as well as other metrics such as property values and home prices. Estimated household income totals were entered into the 2024 IMPLAN model for Howard County along with the estimated construction cost, which then estimated the contribution and impact the construction impacts and future household spending.

Please note that there is difference between an economic contribution and an economic impact. In the former, the businesses are already operational in the county and the question being answered is what they are contributing to the county's economy. Additionally, the residential contribution is from existing households in the area. On the other hand, an economic impact is commonly used to describe the entry of a new business or new residents bringing "new dollars" into the county.



Once constructed, the economic impact of the proposed Maple Lawn residential development is 680 jobs, \$137.5million in output, and \$56.7 million in employee compensation.

**Figure 9: Summary of Economic Impact of Proposed Maple Lawn Residential Development in Howard County, MD**

|                       | Direct       | Indirect     | Induced      | Total         |
|-----------------------|--------------|--------------|--------------|---------------|
| Employment            | 292          | 47           | 341          | 680           |
| Output                | \$54,600,000 | \$11,587,887 | \$71,357,082 | \$137,544,968 |
| Employee Compensation | \$30,388,025 | \$4,096,725  | \$22,262,709 | \$56,747,459  |

Sources: Howard County Department of Finance, IMPLAN, RESI, Greenebaum Enterprises, U.S. Census Bureau, EIA

The impacts seen in **Error! Reference source not found.**Figure 9 for the proposed developments at Maple Lawn would represent new economic activity in the Howard County economy and would support secondary economic impacts.

## Methodology

RESI conducted economic and fiscal impact analyses for Maple Lawn, a smart-growth development in Fulton, Maryland. A standard input-output technique was applied using IMPLAN, an industry-standard economic impact analysis tool. RESI also prepared a cost of services analysis using Howard County household, income, education, and budget data gathered from various sources.

### IMPLAN Model Overview

IMPLAN is an input-output modeling tool. IMPLAN is based on economic multipliers, or the additional economic activity that occurs after an initial transaction. Consider the following example: if a resident of Maple Lawn hires a company to repaint a room in the home, the fee that household pays the painting company can be used to buy supplies (such as paint and paintbrushes) and/or to pay employees. In turn, these suppliers can purchase the supplies that they need and/or pay their employees. The employees can then make purchases to support their households, for example on rent or a mortgage, at the grocery store, for recreation, etc.

These three types of spending are economic impacts. The **direct impact** is the initial transaction (the Maple Lawn resident paying the painting company); the **indirect impacts** occur when supplies are purchased; the **induced impacts** are spending that stems from employee wages. The sum of these impacts is the **total impact**. In this analysis, economic impacts are measured in terms of employment, output, and employee compensation.

Two different types of IMPLAN analyses were conducted for this project. One looked at the multiplier effects associated with retail/commercial activity in Maple Lawn. Inputs for this portion of the IMPLAN analysis were based on commercial building information (square footage, tenant type/industry, etc.) provided by Greenebaum Enterprises and St. John

Properties, as well as publicly available data from various sources, such as average square footage by employee published by the EIA.

The other examined the economic activity associated with spending by current or future residents of Maple Lawn. For this analysis, data on the current residential stock of Maple Lawn as well as the number and type of housing units in the proposed development was provided by Greenebaum Enterprises. To develop inputs into the IMPLAN model, RESI estimated household income levels for current Maple Lawn residents using data from the U.S. Census Bureau as well as other data such as property values and home prices. Estimated household income totals were entered into the 2018 IMPLAN model for Howard County, which then estimated the contribution and impact of this current or future household spending.

The 2018 IMPLAN model for Howard County was used for this analysis.

### **Cost of Services Analysis**

To understand the fiscal effects that Maple Lawn's existing development and future developments have had and will have on the region, RESI prepared a cost of services analysis (COSA). The purpose of a COSA is to estimate the cost and revenue that is incurred and gained in the establishment and/or expansion of a development. In Maple Lawn's case, RESI was asked to estimate the existing development as well as a planned expansion of the development, which includes both commercial and residential properties.

To estimate the cost of services, RESI calculated the following:

- (1) Using American Community Survey, RESI identified the number of residents and households, and then estimated the number of school-age children residing in Maple Lawn using the number of residents/households
- (2) Using Howard County Public School System (HCPSS) enrollment and FY25 budget, RESI then calculated the cost per pupil using public school services
- (3) RESI then calculated the cost per capita for Howard County residents for all services other than public schools
- (4) RESI used the calculations from steps (2) and (3) to estimate the cost of services provided to residents/future residents of Maple Lawn
- (5) RESI used proportions of workforce totals and commuter flows based on county of workplace from the U.S. Census Bureau to calculate cost of services for workers who live outside Howard County but work in Maple Lawn

To estimate tax revenue, RESI estimated and assumed the following

- (1) New home buyers in Maple Lawn West, put down a 23% downpayment on the single family homes
- (2) Mortgage and rent were assumed to be no more than 30% of gross household income

RESI estimated the total income and property tax revenues based on current county taxation rates and the number of households currently in Maple Lawn or expected to be in Maple Lawn after the proposed development is complete. The cost of services was then compared to the tax revenues to determine if the development is a financial benefit or cost to Howard County.

**END OF DOCUMENT**



